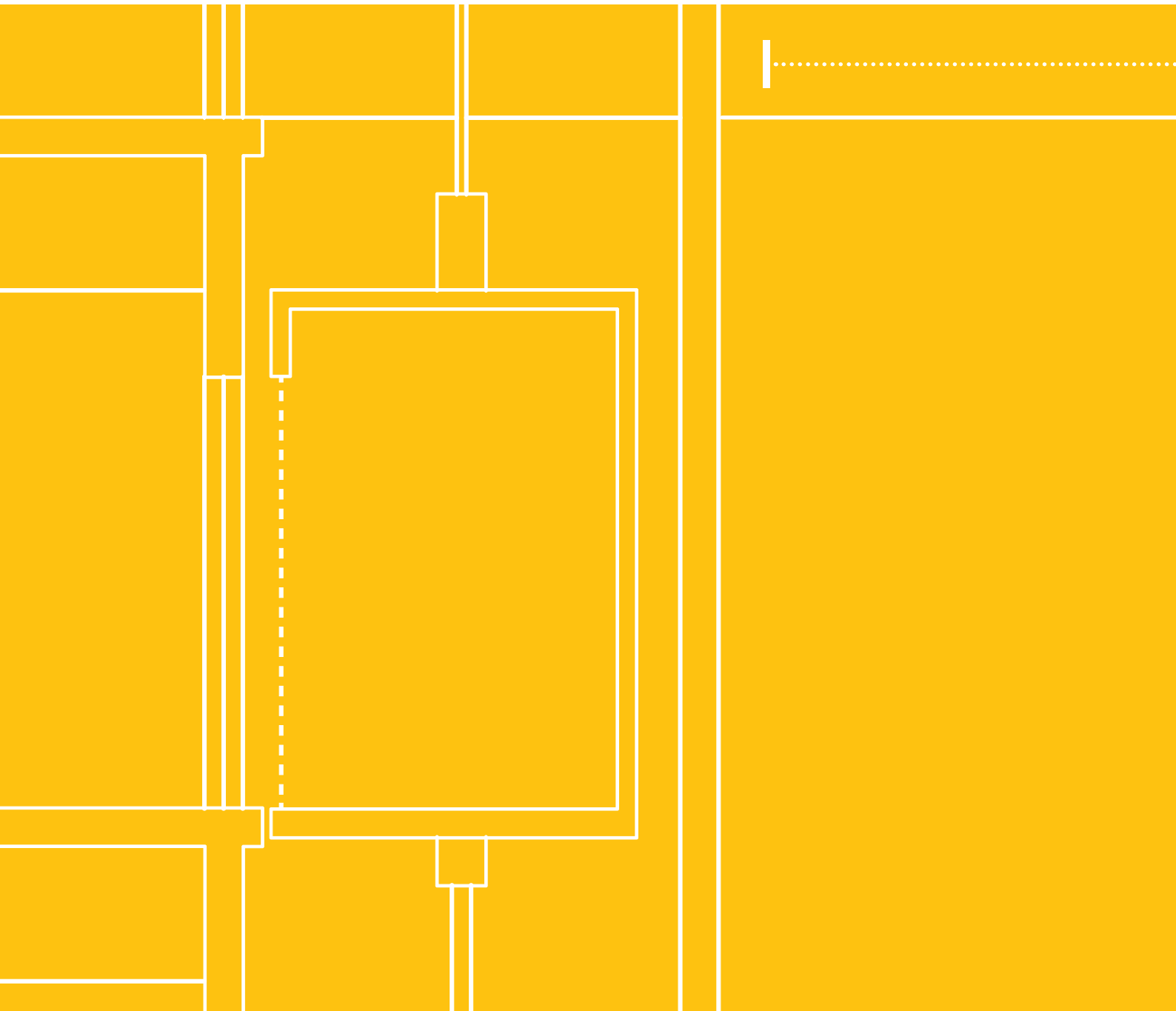


Accessibility standards

for health facilities in Ghana



Ghana Somubi Dwumadie

Ghana Somubi Dwumadie (Ghana Participation Programme) is a four-year disability programme with a focus on mental health, funded with UK aid from the UK government. It is run by a consortium led by international development consultancy Options, alongside Basic Needs Ghana, Kings College London, Sightsavers and Tropical Health.

The programme focuses on four key areas:

- Promoting stronger policies and systems that respect the rights of people with disabilities, including people with mental health disabilities.
- Scaling up high-quality and accessible mental health services.
- Reducing stigma and discrimination against people with disabilities, including mental health disabilities.
- Generating evidence to inform policy and practice on the effectiveness of disability and mental health programmes and interventions.

Accessibility of healthcare facilities is a critical component of Ghana Somubi Dwumadie. The programme leveraged the existing expertise of consortium partner Sightsavers to develop this accessibility standards pack to conduct accessibility audits.

Sightsavers

Sightsavers is an international development organisation working in more than 30 countries to protect sight, fight disease and promote the rights of people with visual impairments and other disabilities.

www.sightsavers.org

Collaboration with Ghana Federation of Disability Organisations (GFD)

Accessibility is a core area of work for GFD. In partnership with GFD, the programme revised the accessibility standards to make them suitable for use in Ghana.

- A meeting with GFD took place in December 2020.
- Participants were drawn from GFD and its member organisations, including board members, the GFD advocacy team, GFD regional executive chairs, GFD staff members, organisations of people with disabilities, and experts. Some participants attended in person, while others participated virtually. Reasonable accommodations were provided to participants who needed them, including sign language interpretation and visual guides.
- The Ghana Somubi Dwumadie team shared the relevant documents with GFD and its member organisations prior to the meeting; these included a draft of the Ghana Somubi Dwumadie accessibility standards to enable participants to understand the task ahead and review the work done before the consultation.

Following the presentation, GFD members provided their feedback and a series of recommendations, which were incorporated by the Ghana Somubi Dwumadie team in the final draft of these accessibility standards.

Ghana Somubi Dwumadie and GFD are looking forward to continued positive collaboration in the area of accessibility audits of healthcare facilities in Ghana.

Contents

Introduction	6	07 Accessible showers	49
Purpose of this document	7	7.1 General accessibility	51
Definitions and acronyms	7	7.2 Shower compartment	52
Conducting accessibility audits in existing health facilities	8	08 Lifts and wheelchair stairlifts	55
01 Access to the health facility	17	8.1 Lifts and wheelchair stairlifts	57
1.1 External wayfinding	19	8.2 Lifts	57
1.2 Parking	20	8.3 Wheelchair platform stairlifts	58
1.3 Path from parking to health facility	22	09 Steps and stairs	59
02 Entrance, reception and waiting area	23	9.1 Steps and stairs	61
2.1 Entrance	25	9.2 Handrails on stairs	62
2.2 Reception	25	10 Ramps	65
2.3 Waiting area	28	10.1 Ramps	67
03 Rooms and halls	29	10.2 Handrails on ramps	69
04 Circulation paths and internal wayfinding	33	11 Doors	71
4.1 Circulation paths	35	11.1 Doors	73
4.2 Internal wayfinding	36	11.2 Manual doors	74
05 General toilets	39	11.3 Powered doors	76
06 Accessible toilets	43	12 Fire alarms and escape routes	77
6.1 General accessibility	45		
6.2 Toilet	46		
6.3 Washbasins	46		



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The standards included in this document follow universal design principles and combine recommendations from the following documents:

- 2010 Americans with Disabilities Act Standards for Accessible Design
- Approved Document M: access to and use of buildings, volume 2: buildings other than dwellings. Ministry of Housing, Communities & Local Government, England
- Health Building Note 00-01: General design principles. Department of Health and Social Care, England
- Neufert: Architects' Data, Fourth Edition, 2012, Wiley-Blackwell
- The Accessibility Code of Pakistan 2006. Government of Pakistan, Ministry of Social Welfare and Special Education, Directorate General of Special Education, Islamabad
- Bangladesh National Building Code (BNBC) 2015 (final draft). Housing and Building Research Institute
- Construction and maintenance regulations: technical devices for accessibility, circulation and use of systems for people with a physical disability or conditioned mobility. Council of Ministers of the Republic of Mozambique, Decree no. 53/2008, 30 December

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The pack was developed to follow best practice for accessible design:

- Text is easy to read and is written in simple, clear language.
- The chapters feature tabs for easy navigation, using different colours and numbers.
- Colours have been chosen to ensure a strong contrast between the text and background.
- Diagrams and photography are used for reference throughout.

Sightsavers welcomes feedback on the accessibility standards and audit pack. Please email your suggestions to apregel@sightsavers.org

Introduction

Article 25 of the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD) recognises that people with disabilities have the right to enjoy the highest attainable standard of health without discrimination on the basis of disability. However, physical and communication barriers can prevent people with disabilities from accessing health services safely, equitably and independently.

People with disabilities make up an estimated 15 per cent of the global population. A high proportion of them live in the world's poorest countries: more than 80 per cent of people with disabilities live in poverty.

Around the world, people with disabilities face widespread exclusion from all areas of economic, political, social, civil and cultural life, including employment, education and healthcare, and experience higher rates of poverty compared with the general population. Environmental and communication barriers are widespread across all sectors, including education, health, employment, transportation, culture and information, and are often very common in low and middle income settings.

Article 9 of the UNCRPD states that promoting equitable access to the physical environment, transportation, information and communications, and any other service open to the public, both in urban and rural areas, is critical to enable people with disabilities to live independently and participate fully in society, on an equal basis with others.

Governments are responsible for identifying and eliminating obstacles and barriers to accessibility, and for ensuring that private companies and organisations that offer services to the public also take into account all aspects of accessibility. Governments are also responsible for developing, promoting and monitoring the implementation of minimum accessibility standards and guidelines for facilities and services that are open to or provided to the public.

This fundamental principle of comprehensive accessibility is particularly relevant in the health sector. Building health facilities that follow universal design principles ensures people with disabilities have the opportunity to access health services on an equal basis with others. It also promotes greater access and a better experience for the wider population, including, for example, older people, pregnant people, parents with children, and people who are illiterate or do not know the local language.

As the international community strives to implement Agenda 2030 and the Sustainable Development Goals, ensuring people with disabilities have equitable access to inclusive and accessible healthcare is crucial to achieve universal health coverage and fulfil the pledge of leaving no one behind.

Purpose of these guidelines

This document aims to provide guidance to government authorities, multilateral agencies, healthcare providers, non-governmental organisations (NGOs), disabled people's organisations (DPOs) and other stakeholders to enable them to improve the accessibility of healthcare facilities in Ghana.

The standards and the accompanying audit pack can be used to:

- assess the accessibility of existing health infrastructure, and offer recommendations so improvements can be made
- guide the development of new health infrastructure, ensuring accessibility is embedded throughout the project from the design stage.

Definitions

Accessibility: The degree to which a product, infrastructure, environment or service is available to as many people as possible, and in particular to people with disabilities.

People with disabilities: This includes people who have long-term physical, mental, intellectual or sensory impairments, which, in interaction with various barriers, may hinder their full and effective participation in society on an equal basis with others.

Reasonable accommodation: Necessary and appropriate modifications and adjustments that do not impose a disproportionate or undue burden, where needed in a particular case, to ensure people with disabilities can exercise all human rights and fundamental freedoms on an equal basis with others.

Universal design: The design of products, environments, programmes and services so they can be used by everyone, to the greatest extent possible, without the need for adaptation or specialised design.

Acronyms

DPO: Disabled people's organisation

NGO: Non-governmental organisation

UNCRPD: United Nations Convention on the Rights of Persons with Disabilities

Amendments

These accessibility standards provide the ideal measurements to ensure a health facility is accessible. The following symbol indicates where there is a space to write alternative measurements.



Conducting accessibility audits in existing health facilities

The standards included in this document and the tools included in the audit pack can be used to conduct accessibility audits of existing health facilities, and to coordinate plans to renovate the buildings and improve the accessibility of the health infrastructure.

As part of this process, Sightsavers recommends following 10 steps, as detailed below and on the following pages.

Step 1

Review the audit tools

At the beginning of the audit process, we recommend reviewing the accessibility standards included in this document and the audit pack to ensure they are in line with existing national guidelines on accessibility. **This step has been completed for Ghana.**

The standards in this document have been informed by guidelines and regulations from different countries, but they may not fit perfectly in every context. For this reason, the physical and digital versions of these standards and the audit pack are designed to be flexible, allowing sections to be

adapted to different circumstances.

If any measurements or recommendations relevant for your region are different from those included in these standards, please record them in the spaces provided.

When planning the accessibility audits, it is also important to consider who will be conducting the assessments and in what regions. If needed, the resources in the audit pack should be translated into the local language, and reasonable accommodations should be provided if they are needed by any members of the audit team.



Step 2

Create an inclusive accessibility audit team

To carry out accessibility audits within existing health infrastructure, the first step is to create an audit team. If the accessibility audits are coordinated by the government, the physical planning department at the ministry of health or other similar group will be responsible for implementing and monitoring the audit activities. If the audits are coordinated by a non-governmental organisation (NGO) or other development agency, a team needs to be assembled, involving several stakeholders.

To ensure a participatory and inclusive process, we recommend that people with disabilities and their representative organisations are consulted at all stages, from initial planning and design through to implementation, monitoring and review. Disabled people's organisations (DPOs) often have experience in accessibility auditing, and may have internal resources such as checklists and manuals that can be used. When this is the case, DPO members can be invited to join the team, to lead or support the audits, and to build on the skills and resources of other participants, such as government officials, healthcare providers and NGOs.

It is important that the audit team includes people with different impairments and lived experiences of disability. While the standards have been designed to be comprehensive and inclusive, this process will promote greater representation, better reflect user experience, and help to identify potential gaps in the audit process.

For example, if people with physical impairments or bodily differences, such as a wheelchair user, someone using crutches, a person with missing limbs, or a person with dwarfism, are involved in the audit, they will be able to directly test physical

components included in the standards and provide additional recommendations based on personal experience.

Similarly, involving a blind person or a person with sight loss, and a Deaf person or a person with hearing loss, is useful to test aspects relating to directions and mobility, light, colour contrast, sound and noise, and access to information and communication. Finally, including a person with mental health conditions or psychosocial disabilities, such as anxiety or mood disorders, a person with a learning or intellectual disability, such as Down syndrome, and people with neurodiverse conditions such as dyslexia or autism, will enable the team to gather more information on elements such as access to information, communication, and potential sources of stress and discomfort. This will enable the team to make more accurate recommendations to improve services.

It is important to include at least one engineer or architect, either from the main planning department or someone responsible for the infrastructure of the facilities being assessed. Involving them may improve their understanding of accessibility and universal design, and will ensure all recommendations are provided with sound technical expertise.

Conducting the accessibility audits can also be an opportunity to raise awareness among participants, such as representatives of the ministry of health or those responsible for health facilities in a certain region. Involving them in the audit team is a chance to improve their understanding of accessibility, universal design issues and the barriers faced by people with disabilities when accessing healthcare services, and can promote greater support and longer-term sustainability.

Step 3 Train the audit team

Once people have been invited to join the team, we recommend developing the skills and knowledge of all team members so they are able to conduct the assessments to the best of their ability.

The format and duration of training sessions can vary, but we recommend conducting at least a three-day workshop, including theoretical training and some practical exercises. It may be useful to make arrangements with a few local health facilities where participants will be able to practise their auditing skills.

When organising the training workshop, consider whether the room is accessible for participants with different impairments, and ensure that reasonable accommodations are in place for any participants who may need them (such as sign language interpretation for Deaf participants, for example). Before the workshop, copies of the standards and the accessibility audit checklist should be prepared for all team members.

At the beginning of the workshop, trainers should provide an overview of the key principles and concepts relating to accessibility and universal design. They should also introduce the tools that will be used during the audits, including:

- Accessibility standards
- Accessibility audit checklist
- Measuring tape
- Camera
- Consent forms for pictures and videos
- Example of floorplan from local health facility
- Report template
- Scoring tool
- Renovation planning tool

Trainers should also introduce the main roles and tasks that will be required to complete the audits.

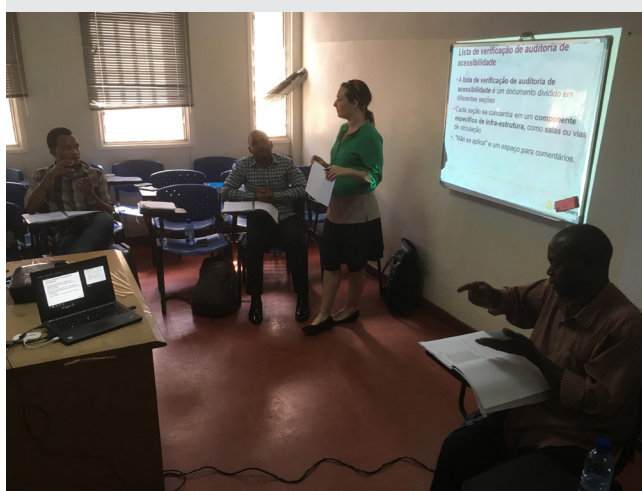
- One team member should be in charge of using the checklist, asking one question at a time and taking note of observations and relevant comments.
- One team member should be responsible for checking the accessibility standards during the audit, particularly to consult criteria mentioned in the checklist.
- One team member should hold the floorplan and ensure all rooms, circulation paths, toilets and other areas are assessed during the audit.
- Two team members should work together to measure doors, ramps, steps and other elements included in the checklist and standards. Sightsavers' accessibility pack includes a bespoke measuring tape: as well as measurements in centimetres, it also shows some of the measurements, icons and colour references mentioned in these standards to make the process easier and more accessible.
- One team member should use the camera (or a smartphone) to take photos of elements that do not meet the accessibility standards. These will be used to compile the final report.
- One team member may need to use a stopwatch to measure the speed of closing doors, stairlifts and other elements.
- Other team members should provide additional support and observations throughout the audit. They can test specific components such as colour contrast or the ease of using doors and handles, for example.

Step 4 Plan the audits

Once participants are familiar with the process, roles and resources, at least two practical exercises should be conducted within the selected health facilities. As part of these exercises, participants can be invited to practise different roles (such as checking the standards, taking pictures or taking measurements). Trainers should observe participants and provide guidance when needed. This could include answering questions, reminding participants to pay attention to specific details, and providing feedback during and after the activity.

At the end of the process, we recommend identifying specific roles for each member of the audit team. It is also useful to identify a team leader to take charge of guiding the team during the audits and ensuring all relevant steps are completed.

The final part of the training focuses on writing the report and using the scoring system. Participants are invited to use Sightsavers' template to develop a contextually relevant score card. This will be used to evaluate each facility's current level of accessibility, and to measure progress following any improvements to the infrastructure.



At the beginning of the audit process, the department, team or individual responsible for coordinating the audits must work closely with health authorities and managers of the health facilities to be audited. Audit planners should provide details about the purpose of the audits and the steps involved. Timings should be planned to ensure minimum disruption to the facilities' services. Where available, obtain a floorplan of the facilities.

All audit team members should be given communications and logistical support so they can carry out the audits on the designated dates. This should include reasonable accommodations for team members who may need them.

Set aside at least two days to complete the audit in a secondary health facility. Depending on the size of the facility (such as in tertiary hospitals), more time may be needed. Audit planners should consider the time required and allow sufficient time and resources to ensure the audit team can reach the facilities.

Make sure enough time is allocated to gather input from all team members immediately after the audit, agree on an audit score, and draft initial observations and recommendations. More time will be required to complete the full report. One or more members of the team should take responsibility for drafting the report.

During health emergencies such as the COVID-19 pandemic, all activities must respect safety protocols and health protection measures. Ensure team members have protective equipment such as face masks and hand sanitiser, and consider creating smaller teams to facilitate social distancing.

Step 5 Carry out the audits



At the start of each accessibility audit, the team should arrive at the facility and meet the relevant managers or authorities, then provide them with a summary of the audit process and obtain a final authorisation to proceed. It is always useful to invite a representative of the facility to join the audit, to guide the team round the facility and provide any relevant information. The audit team should also ask for permission to take photos of any elements that do not meet the accessibility standards, and ask the relevant manager or authority to sign the consent form. All audit participants should also sign consent forms.

If a floorplan of the health facility is available, the team should begin the audit process by identifying the route they will follow. As indicated in the checklist, each audit should ideally start outside the facility, before moving to the parking area (if provided) and the entrance, reception and waiting areas. The team should then audit all rooms, bathroom facilities, circulation paths and lifts (if present). Specific elements, such as stairs, ramps, doors and fire alarms, are likely to feature in multiple locations and should be assessed whenever the team encounters them.



Step 6 Draft the audit report



Once the audit has been completed, the team should gather to debrief and discuss the facility's level of accessibility, reflect on positive aspects and potential challenges, and start drafting the audit report.

The team leader should take responsibility for writing the report using the template provided in the accessibility pack, which follows the structure of the checklist. All team members should contribute by sharing their comments and observations, selecting the photos to be included and providing recommendations to improve the accessibility of the health facility.

It is useful to record as much information as possible in the report immediately after the audit, when memories are still fresh and more accurate. If it is not feasible to complete the report in one session, the team leader should take responsibility for finalising the draft and sharing it with other team members for feedback and final approval.







**Step
7**

Assign a score to the health facility



Following the audit, it may be useful to assign a score to the facility’s overall accessibility using the scoring tool included in the accessibility pack. The scoring system features a scale from 0 to 100, and is divided into four categories:

-  **76-100:** Good accessibility, low need for adjustments
-  **51-75:** Moderate accessibility, moderate need for adjustments
-  **26-50:** Low accessibility, strong need for adjustments
-  **0-25:** Minimal accessibility, high need for adjustments

Each category includes a description of key features that a facility in that category may have. The team is encouraged to

use the space provided to adapt the narrative descriptions and ensure they are contextually relevant in their setting.

Every member of the team should assign a personal score to the facility, based on their observations during the audit. Team members should then discuss in pairs, share their scores, and reach an agreement on a single score. Each pair should then discuss with another pair, and the process should be repeated until the entire audit team agrees on a final score for the facility.

This score can provide a snapshot of the amount of adjustments needed to make the building more accessible. It can also be used for monitoring, for example within a log frame, to measure progress after any renovations have been completed and a second audit has been carried out.

Score	General description
Good accessibility (76-100)	The experience of visiting the centre is positive and free from issues. All the infrastructure elements along the route (such as rooms, doors, stairs and ramps) are easily accessed, and reasonable modifications have been made to ensure access for people with different impairments.
Moderate accessibility (51-75)	The experience of visiting the centre is generally positive and free from issues. Most infrastructure elements along the route (such as rooms, doors, stairs and ramps) are easily accessed, and reasonable modifications have been made to ensure access for people with different impairments.
Low accessibility (26-50)	The experience of visiting the centre is generally negative, and there are multiple issues. Some of the infrastructure elements along the route (such as rooms, doors, stairs and ramps) are not easy to access or use. Some reasonable modifications have been made to ensure access for people with different impairments, but this is not sufficient.
Minimal accessibility (0-25)	The experience of visiting the centre is generally negative, and there are multiple issues. Many of the infrastructure elements along the route (such as rooms, doors, stairs and ramps) are not easy to access or use. No reasonable modifications have been made to ensure access for people with different impairments, or modifications cannot be used as intended. A person with disability could not visit this facility independently.

Step 8

Develop plans to adjust and improve the infrastructure



Once the audit report has been completed, it should be used to plan infrastructural adjustments to improve the accessibility of the health facility.

The first step is to obtain cost estimates for each recommended adjustment, such as installing a handrail, building a ramp or widening a door. The physical planning department, DPOs, or the architect or engineer who has been involved in the audit could lead this activity, as they may already have a list of trusted suppliers. If no list is available, stakeholders should collaborate to identify potential suppliers and request quotes for each suggested modification. Once quotes are obtained, these can be included in the renovation planning tool provided within the pack.

When all cost estimates have been obtained, the health facilities, health authorities, the audit team and other relevant stakeholders should arrange a

meeting. During this meeting, the audit team can provide a summary of the audit process, present the observations and recommendations included in the report, and give an overview of the cost estimates for each suggested adjustment.

Stakeholders should then hold discussions to identify responsibilities and resources to support the accessibility adjustments. It can be useful to carry out a participatory prioritisation exercise to agree which adjustments are considered to be high, medium or low priority.

When all partners agree on key priorities and funding sources, the final step is to define roles and responsibilities to start carrying out the improvements. The aim is to produce a detailed plan featuring clear timeframes. It is important to ensure all stakeholders are involved in this process, and to identify the most suitable times to carry out the improvements to minimise disruption.

Step 9

Carry out improvements



During this step, it is important to document the process of improving the health facility's infrastructure. This will enable you to monitor progress against the action plan and gather key lessons and feedback.

Step 10

Repeat the audit



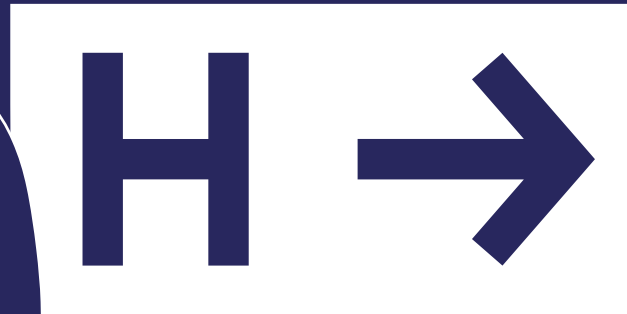
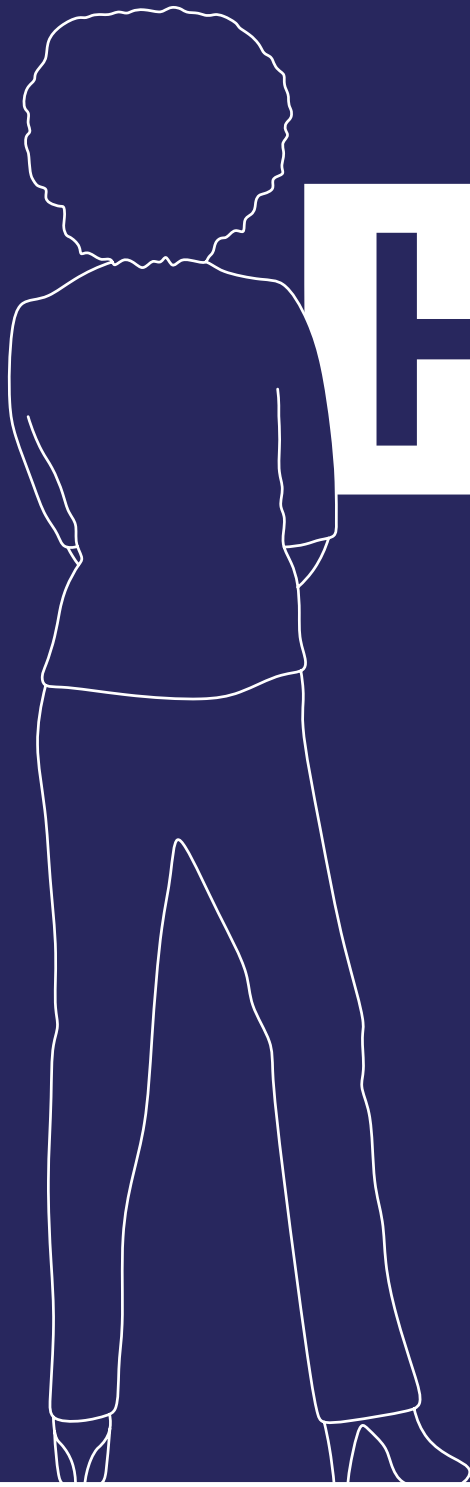
After all the agreed infrastructure adjustments have been made, a new accessibility audit should be carried out to re-assess the facility's accessibility and identify any pending issues. Ideally, the original team responsible for the initial audit should be involved in this new assessment. This will ensure the results are consistent, and will give them the opportunity to measure the facility's progress using the scoring tool.

Summary: the 10-step process for accessibility audits

Step 1	Review the audit tools
Step 2	Create an inclusive accessibility audit team
Step 3	Train the audit team
Step 4	Plan the audits
Step 5	Carry out the audits
Step 6	Draft the audit report
Step 7	Assign a score to the health facility
Step 8	Develop plans to adjust and improve the infrastructure
Step 9	Carry out improvements
Step 10	Repeat the audit



Access to the health facility



01

1.1 External wayfinding

1. You should be able to easily identify the health facility.
2. Directional signs should provide instructions explaining how to reach the facility.
3. The colour of the text on the signs should contrast with the background.



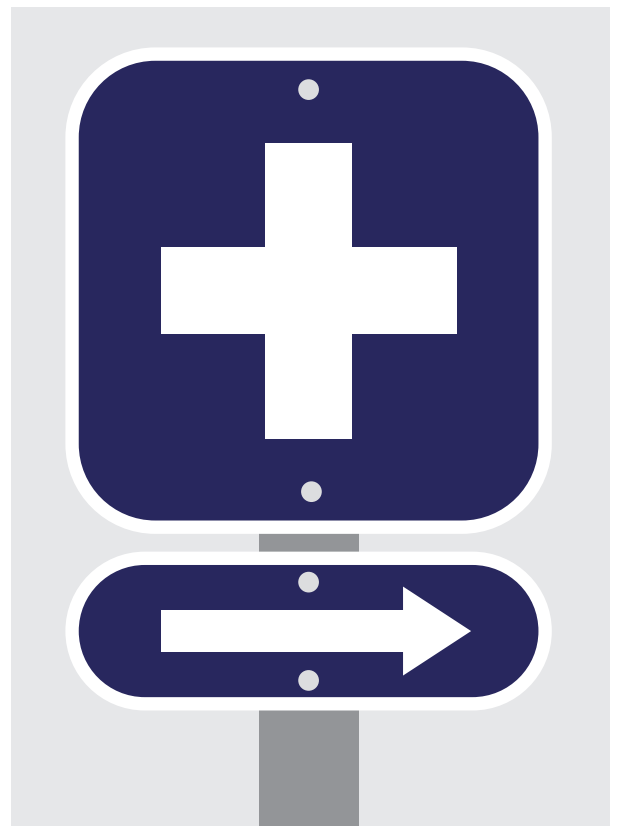
4. Text should not be *italic*, highly decorative or use any other unusual forms. A sans-serif typeface should be used. This will increase legibility for everyone, including people with dyslexia.

✔ Use a font like this.

✘ Not a font like this.

5. The size and weight of the text should be determined based on the positioning of the sign and the distance from where it should be read. Signs positioned further away from the reader should feature larger text.

6. There should be adequate spacing between individual characters and also between separate lines of text.
7. The signs may include pictograms or other visual information to make them more easy to understand for people with learning or intellectual disabilities, people who are illiterate, and people who do not speak the local language.



8. The surface of the signs should be non-glare.



1.2 Parking

1. The surface of the car park should be flat, firm and non-slippery. Avoid surfaces such as gravel or sand.

Reserved parking bays for people with disabilities should be provided within **30 metres** of the entrance of the health facility.



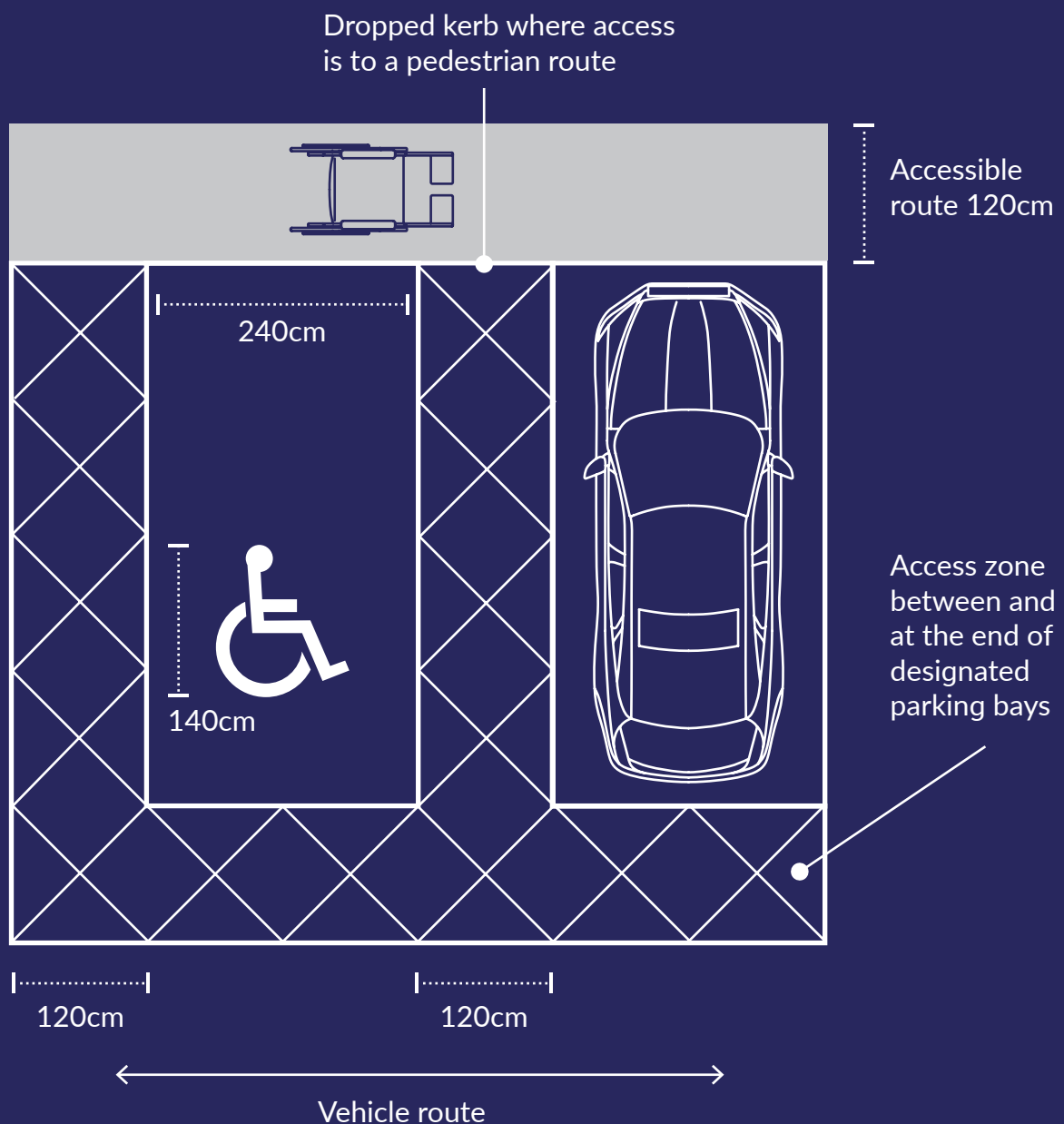
2. Reserved accessible parking bays should be at least **240cm x 500cm** in size.



3. A clearly marked reserved access area measuring **120cm** wide should be available on the side and at the rear of designated parking bays (see figure 1).



Figure 1: Accessible parking bay position and measurements



- Vertical signs should indicate that the accessible parking space is reserved for people with disabilities. The vertical signs should be positioned at a height of **200cm**, so they can be seen even if cars are parked in the area.



- The international symbol of accessibility should be painted on the ground within the accessible parking bays.




- The table below can be used to calculate the total number of accessible parking bays needed.

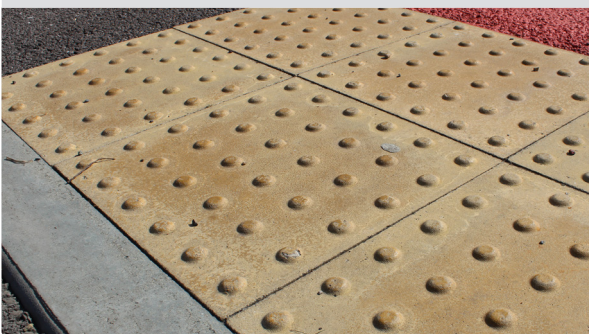
Total number of parking spaces	Minimum number of accessible spaces
1 to 25	1
26 to 50	2
51 to 75	3
76 to 100	4
101 to 150	5

- If visitors are required to buy a ticket to pay for the parking, ticket vending machines should be positioned so that a person in a wheelchair or a person with dwarfism can safely access the machine and use all its functions.

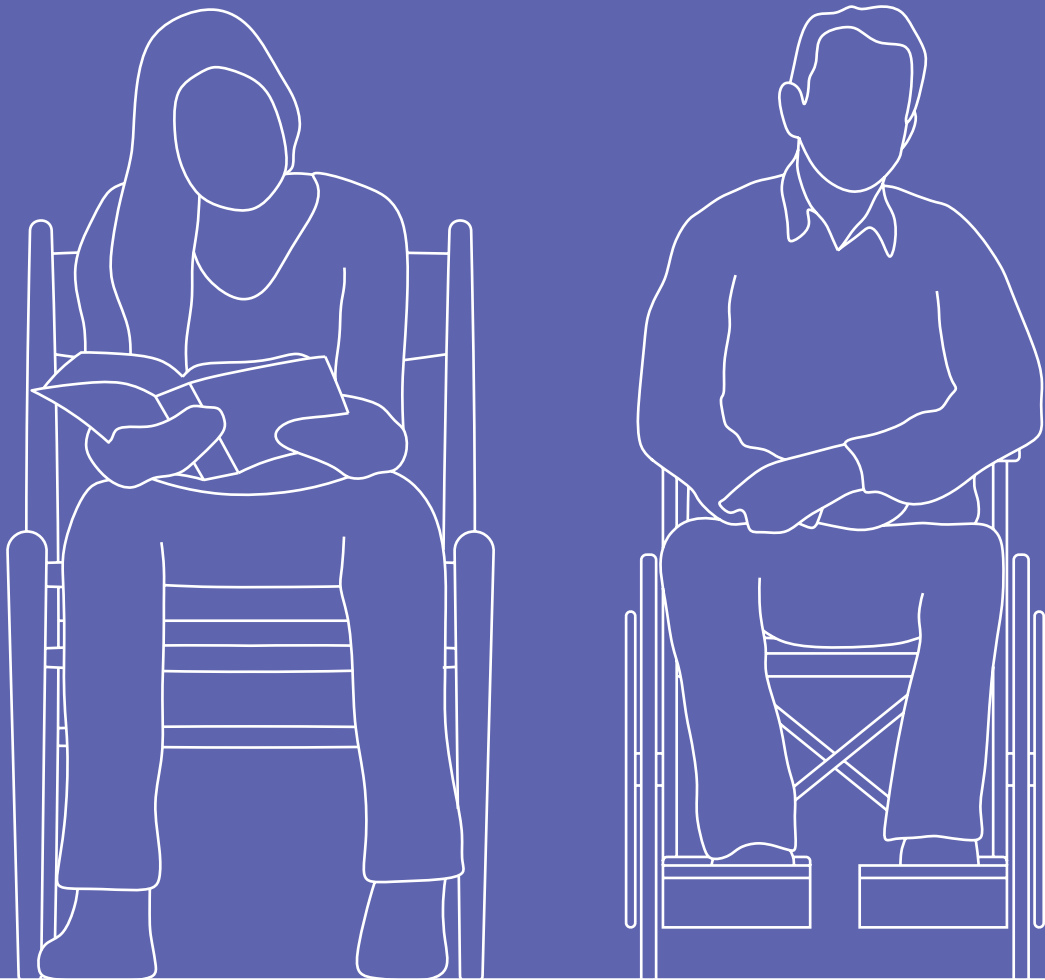
1.3 Pathway from the parking bay to the health facility

1. Accessible pedestrian routes to entrances should be designed so they do not cross into vehicular routes. In situations where accessible pedestrian routes cross into vehicular routes, crossings with suitable kerb ramps should be provided, identified by bright yellow or white lines and/or distinct paving.
2. There should be a pathway at least **152.5cm** wide between the parking bay and the health facility, with a minimum vertical clear space of **210cm**.

3. Footpath surfaces should be flat, firm, non-slippery and kept clear of hazards such as trees and bins, at both ground level and higher levels.
4. If feasible, drainage gratings should be positioned beyond the boundaries of the access route. Gratings within an access route should be set flush with the surrounding surface. Slots in gratings should be not more than **1.3cm** wide and should be set at right angles to the dominant line of travel. The diameter of circular holes in gratings should be not more than **1.8cm**.
5. If there is a kerb along the pathway, an accessible ramp access point should be provided. The minimum width of the kerb ramp should be **90cm** between two flared sides of minimum width of **120cm**.
6. Kerb ramps should be gently sloping with the minimum slope at a ratio of **1:20**, or **1:10** for short kerbs. The maximum slope of the flare should be **1:10**. For more information on ramp gradients, see section 10: Ramps (page 65).
7. Kerb ramps should be non-slippery, have contrasting colours and tactile features.
8. Tactile paving strips should be used on public pathways to help guide people with visual impairments. The colour of the tactile strips should contrast with the rest of the pavement.

For specific guidelines on tactile paving, see www.gov.uk/government/publications/guidance-on-the-use-of-tactile-paving-surfaces



Entrance, reception and waiting area



02

2.1 Entrance

1. All main entrances and other accessible entrances should be protected by a suitable canopy or overhang.
2. Wheelchairs should be available near the entrance of the health facility for people who need them. The wheelchairs should be positioned carefully to make sure they do not obstruct walkways.



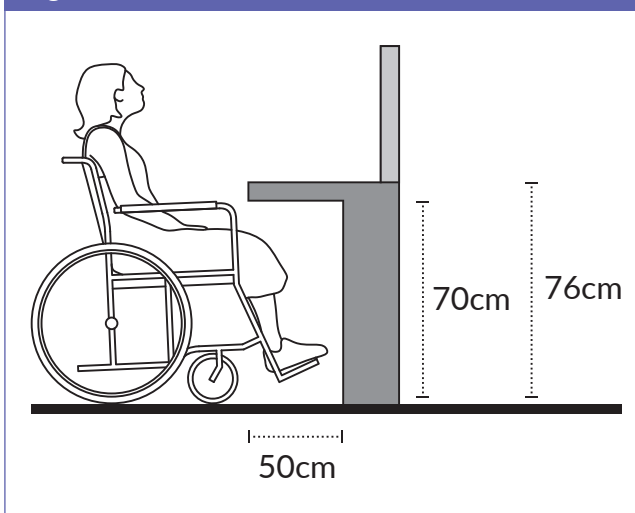
3. Staff should be trained to help patients with limited mobility.
4. A tactile pictographic map of the health facility should be installed near the entrance, to provide information on the structure of the building and location of different rooms and corridors. This is useful for all visitors, including people with visual impairments.



2.2 Reception

1. The reception counter should be clearly signed and identifiable from the entrance.
2. The reception counter should be reached via an accessible circulation path. For reference, see section 4: Circulation paths and internal wayfinding (page 33).
3. A counter or reception desk should be capable of being staffed by a wheelchair user.
4. One section of the counter should be lowered to ensure it is accessible for wheelchair users and people with dwarfism.

Figure 2: Accessible counter measurements



- The lowered section should be at least **150cm** wide.
- The surface should have a maximum height of **76cm**.
- There should be a knee space with a height of **70cm** from the floor and a depth of **50cm** from the base of the counter.

5. There should be a clear manoeuvring space at least **120cm** deep and **180cm** wide in front of the accessible counter.
-
6. The accessible section of the counter should be clearly marked with the international symbol of accessibility.
 7. There should be enough space at the reception counter to give people privacy when communicating with staff.
 8. It is recommended that a sign is installed at reception to provide priority access to people with disabilities, older people, adults with children and pregnant people.
 9. A functioning hearing loop should be available at reception and should be clearly signed. A hearing loop enables people with hearing impairments using hearing aids to receive sound signals directly to their hearing aid, reducing background noise and improving the clarity of sound.
 10. It is recommended that relevant materials are developed in accessible formats, such as large print and easy-read, and made available in the reception area to ensure people with visual impairments and intellectual disabilities can access the



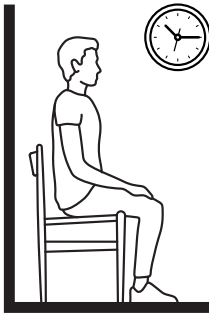
information. These could include posters or booklets explaining the activities carried out in the health facility (such as registration or blood tests, for example).

11. It is also useful to develop a live action or animated video to provide information on the services available in the health facility. It is recommended that captions and sign language interpretation are embedded in the video.
12. It is recommended that sign language interpretation services are provided for patients who need them.

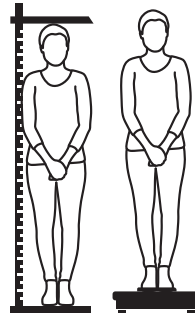
2.3 Waiting area

1. The waiting area should be clearly identifiable.
2. Seats should be provided in the waiting area.
3. It is recommended that a sign is installed in the seating area to give priority access to people with disabilities, older people, adults with children and pregnant people.
4. There should be space for wheelchairs in the waiting area.
5. Access to seating in general waiting areas should be direct and unobstructed.
6. The clear space for access to seating designated for people with disabilities should be at least **90cm** in front of a row of seats (**120cm** where practical), to allow access by people with crutches, and **105cm** wide by **230cm** deep to allow for manoeuvring a wheelchair into a designated space from a circulation route at right angles (eg between rows of seats).

Figure 3: Example of information material in easy-read format



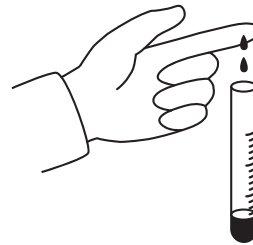
When you arrive, you will be asked to sit in the waiting area for a few minutes.



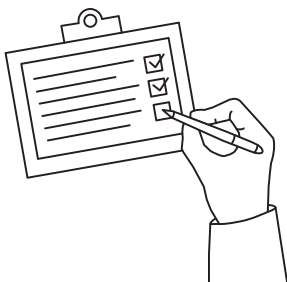
The nurse will measure your height and weight.



A nurse will call your name. She will invite you to follow her into the examination room.



The nurse may ask you to do a blood test. She will prick your finger to collect a drop of blood. You will feel a small pinch, but it will not hurt.



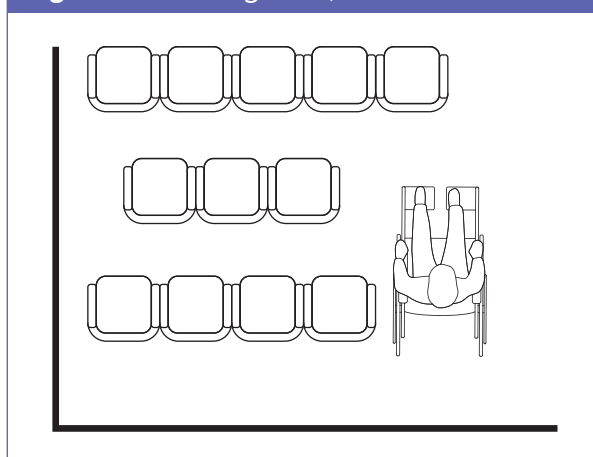
The nurse will ask you a series of questions about your health.



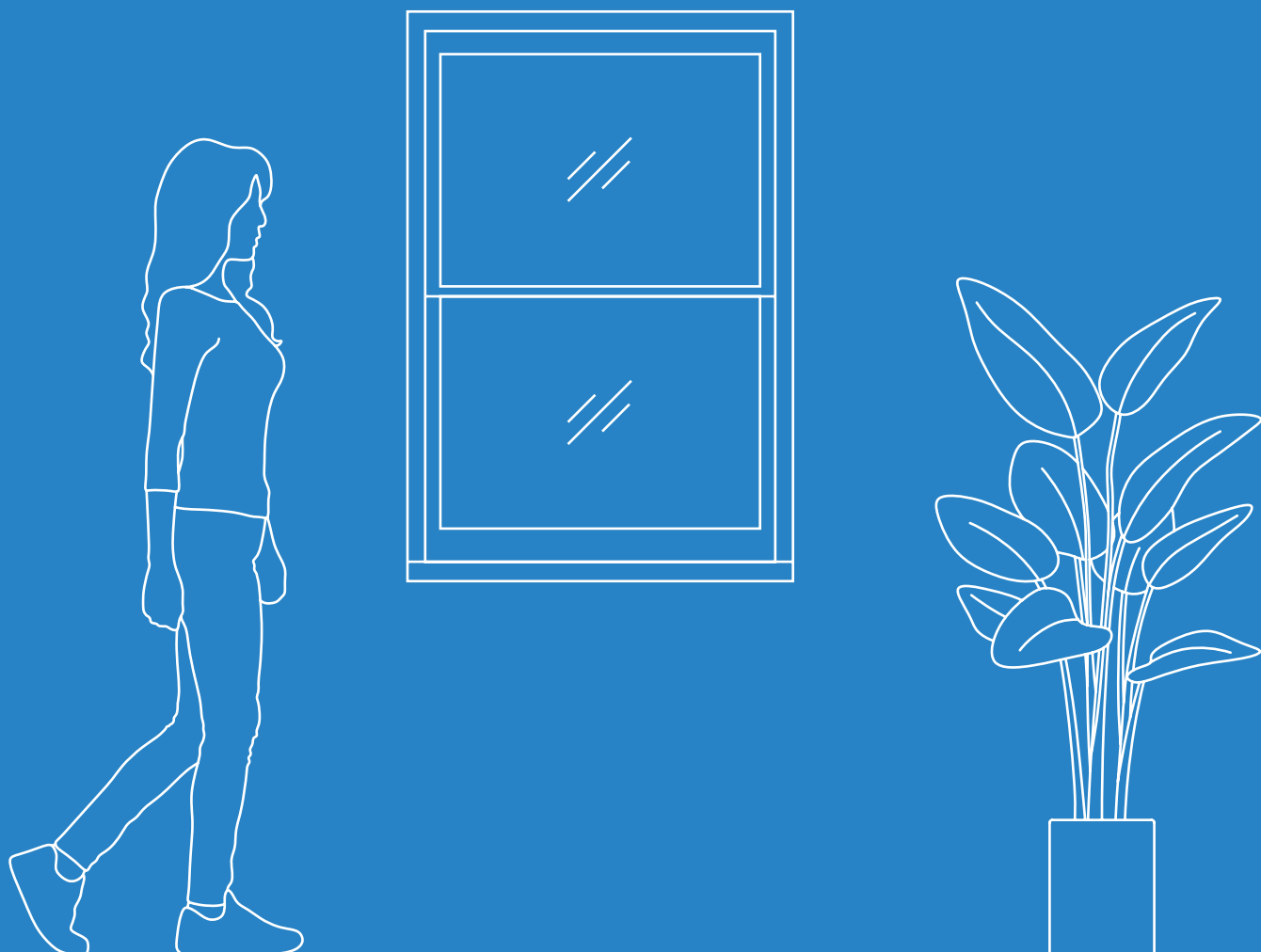
You may even need a urine test.

7. The floor surface should be flat, firm, non-slippery and non-glare.
8. The waiting area should have sufficient natural or artificial light. Flickering lights should be avoided. Lighting should be laid out to create even distribution at floor level, and to minimise pools of light or areas of shadow.
9. Lighting levels in internal environments are recommended to be no less than **100 lux**; lighting over directional or informational signage, service counters, usable parts or where specific operations need to be performed, should be no less than **200 lux** at the working, usage or information surface.
10. The waiting area should have good ventilation. Heating, cooling and ventilation systems should be designed to accommodate people whose circulatory systems are inadequate. For instance, many older people and individuals using mobility devices have difficulty sensing temperature differences because of poor circulation or body tone. When the ambient temperature is too high or too low, they may become dehydrated or suffer from hypothermia. Ambient air temperature should be designed to operate between **21°C and 26°C (70°F and 79°F)** at all times of the year.
11. Mechanical, ventilation and air-cooling systems should be designed so that the air flow from diffusers/grills is not directed towards people lying in bed or towards permanent seating or working locations.
12. The waiting area should be free from loud background noises (such as loud TVs or generators). High noise levels can increase stress levels and anxiety in staff and patients.
13. Floor finishes, wall surfaces and ceilings should be made of materials that do not unduly amplify noise.
14. If public address and call systems are provided, every attempt should be made to minimise distortion and provide a full spectrum of sound. Loudspeakers should be located to cover the desired area adequately without feedback. They should be mounted on posts to ensure the output close to speakers is at acceptable levels for nearby audience members.
15. The waiting area should be clear of any obstacles and hazards, at both ground level and at higher levels. The colour of key items in the waiting area (chairs or counters, for example) should contrast with the colour of the floor and surrounding elements.
16. Child-friendly features should be incorporated in the waiting area. These could include a child recreation space with flat, firm, non-slippery flooring and age-appropriate recreational tools; and a private baby care and lactation area for those who may need it.

Figure 4: Seating area, overhead view



Rooms and halls



03

3.1 Rooms and halls

1. Rooms should have sufficient natural or artificial light and good ventilation, and should be free from loud background noises. Flickering lights should be avoided. Natural light is beneficial for patients and staff, and lower noise levels can help to reduce stress and anxiety.
2. Lighting should be laid out to create even distribution at floor level, and to minimise pools of light or areas of shadow.
3. Lighting levels in internal environments are recommended to be no less than **100 lux**; lighting over directional or informational signage, service counters, usable parts or where specific operations need to be performed, should be no less than **200 lux** at the working, usage or information surface.
4. Ambient air temperature should be designed to operate between **21°C** and **26°C (70°F and 79°F)** at all times of year.
5. Mechanical, ventilation and air-cooling systems should be designed so that the air flow from diffusers/grills is not directed towards people lying in bed or toward permanent seating or working locations.
6. The colour of key items in the room (such as chairs and tables, for example) should contrast with surrounding elements. Using colour and art can reduce the physical and emotional stress of patients and staff. It can also be used to help with wayfinding and reduce the number of signs required. Floor surfaces should be flat, firm, non-slippery and non-glare.
7. Rooms should be clear of obstructions or hazards. Consider obstructions at ground level as well as at a higher level, such as:
 - protruding objects, such as shelves or suspended cabinets
 - grilles, covers or holes in the floor
 - sharp or abrasive surfaces.
8. The ceiling should be at least **203cm** high, and objects suspended more than **68.5cm** from the floor should not protrude more than **10cm**.

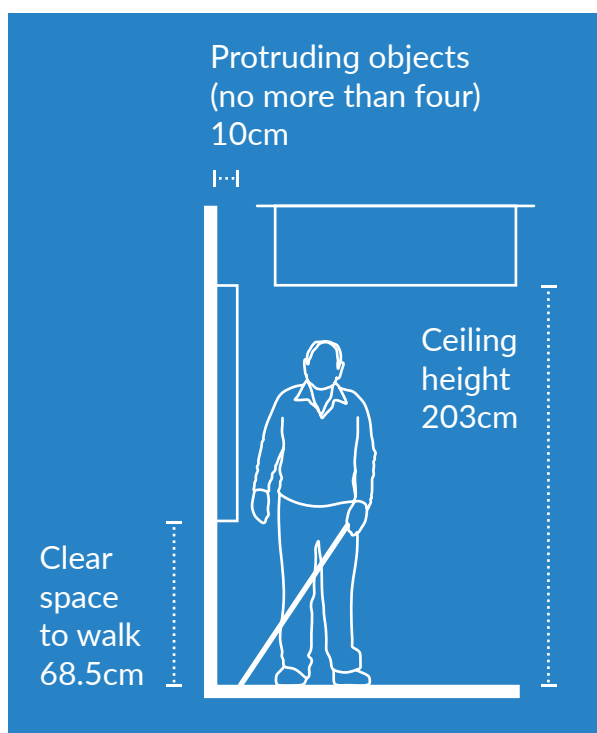


Figure 5: Minimum clearance measurements in rooms and halls

9. Rooms should have a minimum clear space of **150cm** by **150cm** to enable wheelchair users to comfortably manoeuvre through doors, turn and access all parts of the room.
10. Relevant equipment intended for public use, or where patients are required to complete a specific task, should be accessible to everyone, including people with different impairments and body sizes.

Examples of tasks and activities

- Depending on the type of activity, people may be required to reach forward, sideways, above or below. Note that people with dwarfism usually have a shorter reach compared with people of average height using wheelchairs, as they have shorter legs and arms.
- Patients may need to reach forward above an obstruction (such as a table) to perform a task (such as during a slit lamp examination). If standard equipment is not fully accessible, alternative equipment (such as a portable slit lamp) should be used, or an alternative procedure should be used, as long as this does not compromise the quality or scope of the activity.
- Water fountains, food dispensers, switch controls, lockers and baggage storage facilities, mailboxes, telephones, windows and other objects should be accessible to everyone, including wheelchair users and people with dwarfism.
- It is recommended that hearing loops are installed within relevant rooms, such as examination rooms. Portable hearing loops should be available to use within the building.
- If dormitories are provided in the health facility, beds should be accessible to everyone. There should be a clear space at least **150cm** wide in front of the long side of the bed to enable wheelchair users to access it.



People with dwarfism and wheelchair users who rely on their arms to transfer into bed may find it difficult to use beds that are too high. It is recommended that the surface of the bed is no higher than **50cm** from the floor.



Raising beds, stretchers, examination tables and operating tables should be available within the facility.

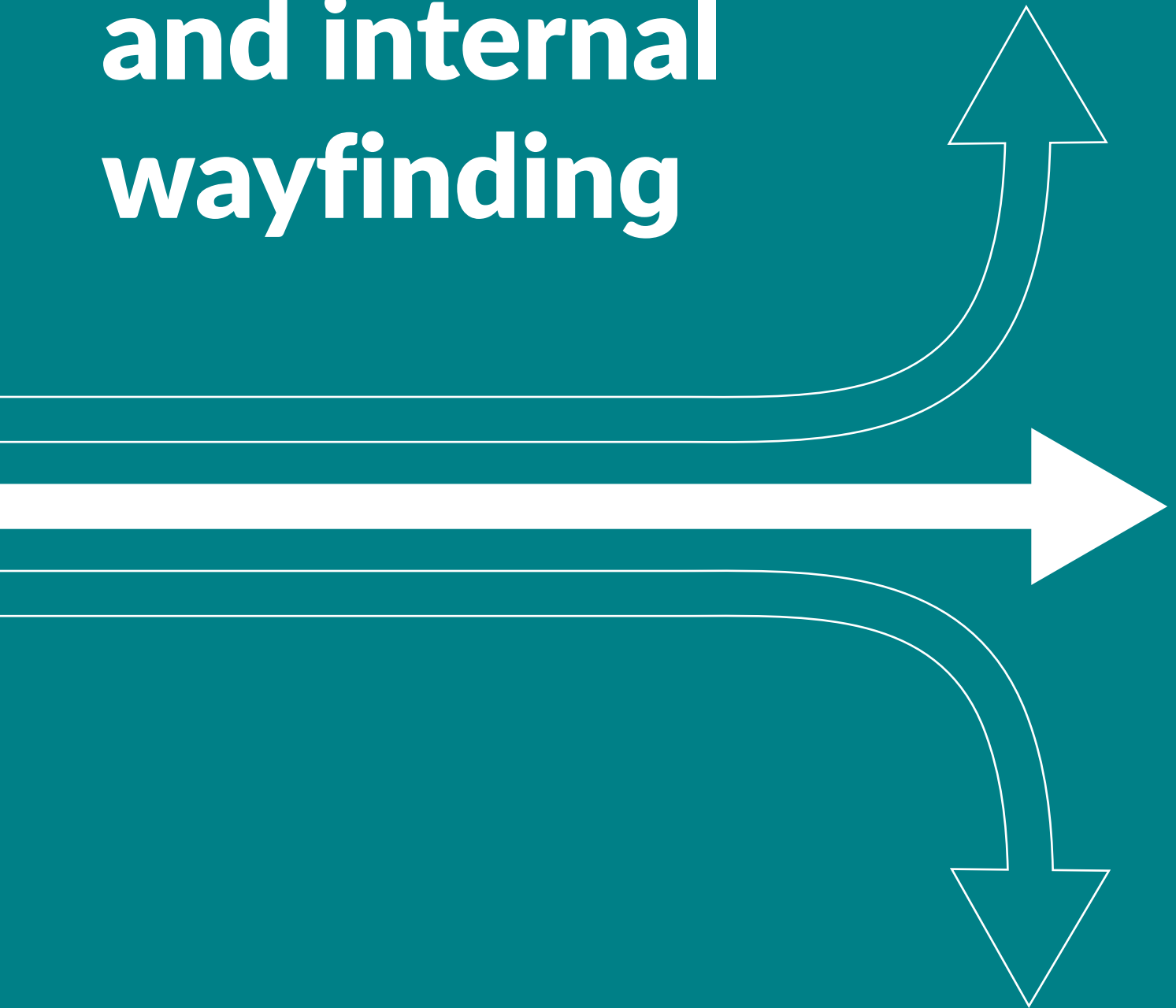
- Some people with limited mobility may not be able to transfer independently from a wheelchair to other seats, and may struggle even with the support of one or more carers. A mobile hoist or ceiling track hoist could be installed in specific rooms, such as in accessible Changing Places, to make transfer easier.



For specific guidelines on Changing Places, see www.changing-places.org

When installing a ceiling track hoist, it is important to consider the structure and weight limits of walls and ceiling.

Circulation paths and internal wayfinding



04

4.1 Circulation paths

1. Pathways should be clear of obstructions and hazards. Consider obstructions at ground level as well as at a higher level.

Examples include:

- protruding objects, such as shelves or suspended cabinets
 - holes on the floor, grilles and manhole covers
 - sharp or abrasive surfaces.
2. The ceiling should be at least **203cm** high, and any objects that are suspended more than **68.5cm** from the floor should not protrude more than **10cm**.



The colour of objects and obstacles in the corridors should contrast with the background. Using colour and art reduces the physical and emotional stress of patients and staff, and can be used to assist wayfinding and reduce the number of signs required.

3. Corridors should have a clear path at least **110cm** wide, as well as turning spaces for wheelchair users that measure at least **150cm** by **150cm**.



4. If the corridor is **15 metres** or longer, there should be a passing place for two wheelchair users that measures at least **180cm** by **180cm**.



5. Floor surfaces should be flat, firm, non-slippery and non-glare. Large, repeating patterns that incorporate bold contrasting colours or simulate steps should not be used for any floor surface.

6. Circulation paths should have sufficient natural or artificial light, good ventilation, and should be free from loud background noises. Flickering lights should be avoided.
7. Lighting should be laid out to create even distribution at floor level, and to minimise pools of light or areas of shadow.
8. Lighting levels in internal environments are recommended to be no less than **100 lux**; lighting over directional or informational signage, service counters, usable parts or where specific operations need to be performed, should be no less than **200 lux** at the working, usage or information surface.
9. Ambient air temperature should be designed to operate between **21°C** and **26°C (70°F and 79°F)** at all times of the year.
10. Mechanical, ventilation and air-cooling systems should be designed so that the air flow from diffusers/grills is not directed towards people lying in bed or toward permanent seating or working locations.
11. In extended-length corridors of **40m** or more, consider providing a bench or other seating, located at intermediate points along the corridor.
12. Handrails should be mounted on the walls along the main circulation paths. For guidance on handrails, see section 9.1: Handrails on stairs (page 62).

4.2 Internal wayfinding

1. Internal signs should conform to standards indicated in section 1.1: External wayfinding (see page 19) in terms of size, colour contrast, typeface, non-glare surface and use of icons, pictures and visual information.

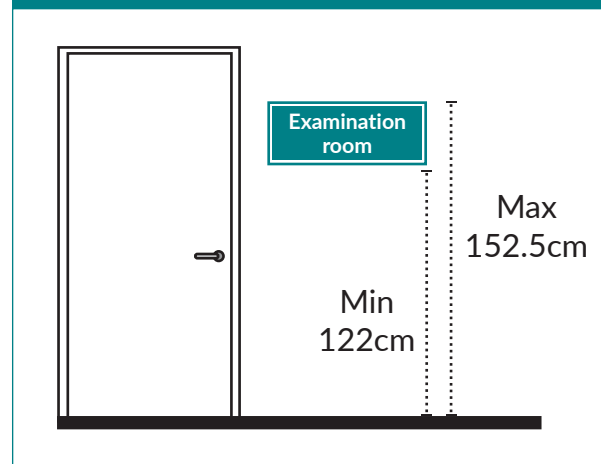


2. Rooms should have signs providing relevant information about the room. For example, the sign could indicate the type of room (examination room or optical shop, for example) or the names of staff members working in the room.
3. Signs should be positioned at a height of no less than **122cm** and no more than **152.5cm** above the floor, on the latch side of the door.



4. For double doors, the sign should be placed on the right side, or can be mounted on the push side of the door, if needed.

Figure 6: Sign positioning



5. It is recommended that internal signs include tactile information through raised characters and braille. Raised characters should not have sharp or abrasive edges.



6. Clear directional signs should be provided in relevant locations within the health facility, such as at the entrance, in large rooms and halls, and in corridors.

7. Directional signs should indicate the location of rooms, toilets and other relevant areas in the health facility.



8. It is recommended that tactile paving is installed in all main circulation pathways connecting rooms, halls, ramps, stairs and other relevant areas of the health facility. The colour of the tactile paving should contrast with the colour of the floor.



For specific guidelines on tactile paving, see www.gov.uk/government/publications/guidance-on-the-use-of-tactile-paving-surfaces

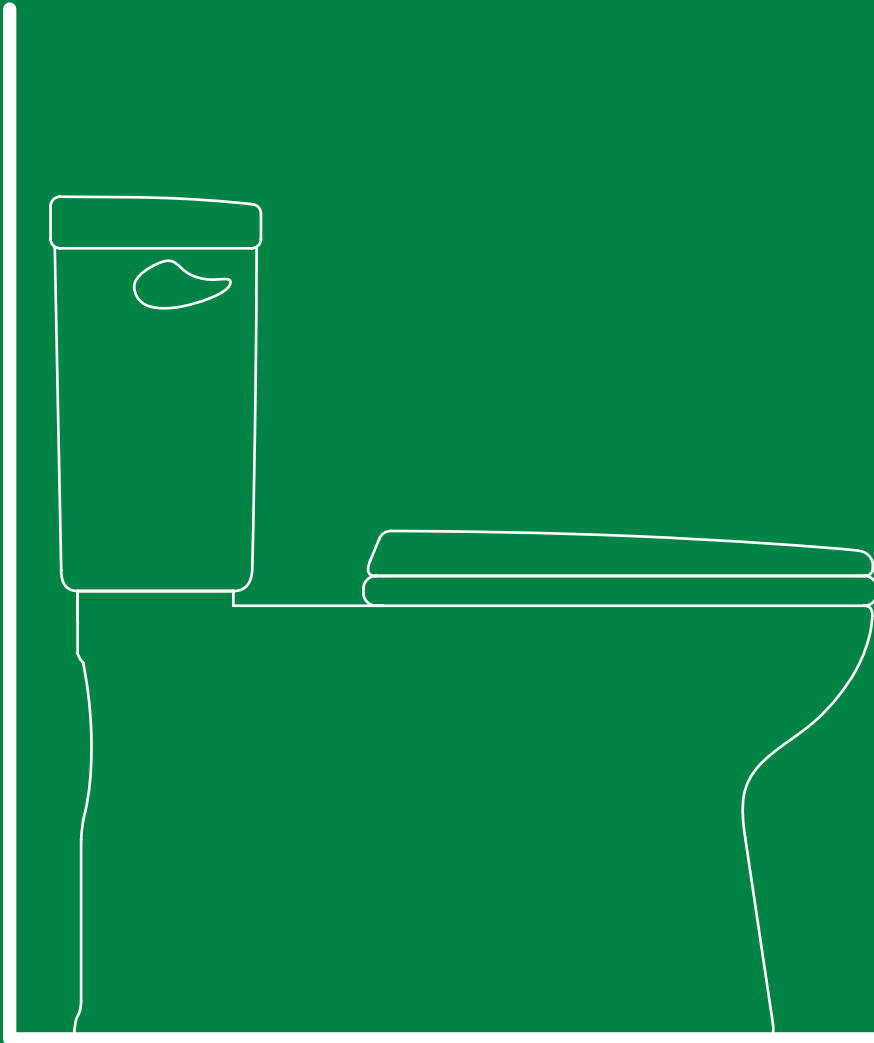


9. It is recommended that visual wayfinding signs are installed on the floor or walls.





General toilets



05

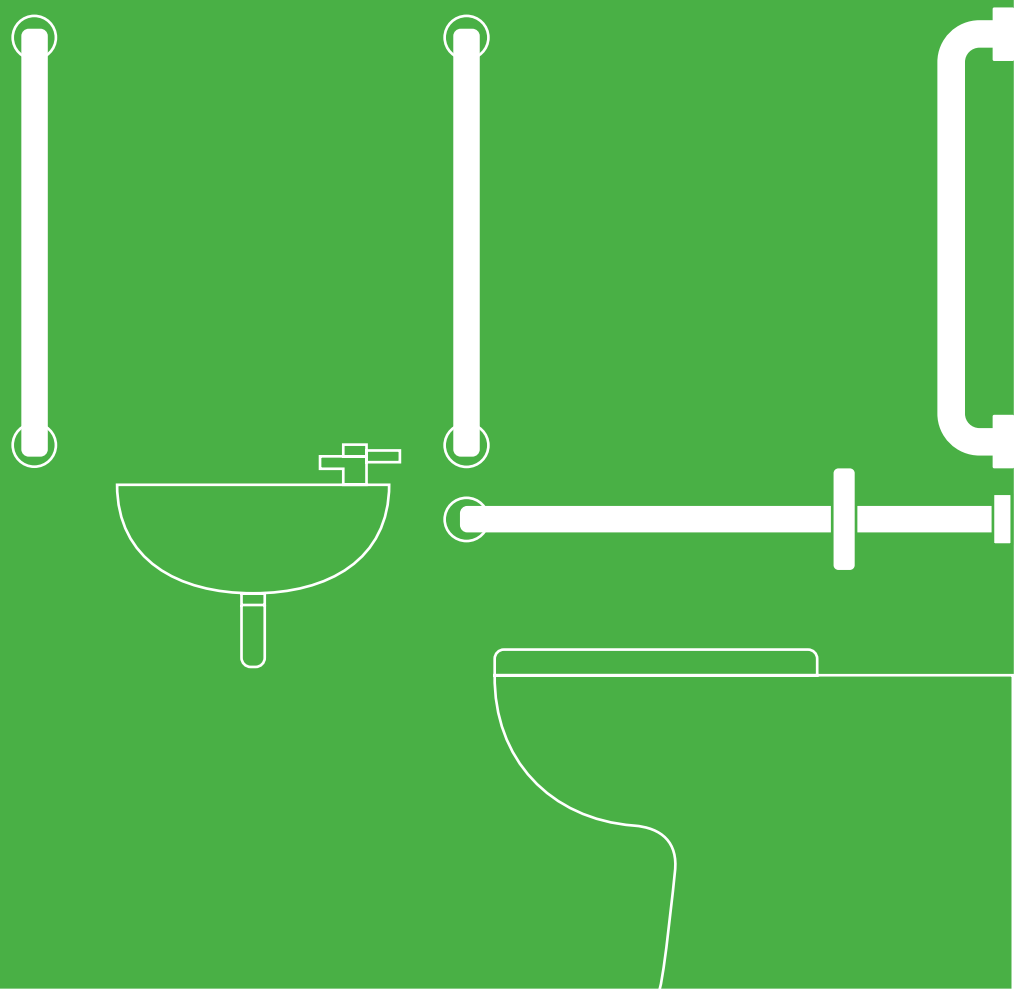
5.1 General toilets

1. Toilets should be separated by gender and clearly signed.
2. Toilets should have doors that can be locked from the inside, and released from the outside by authorised staff in case of emergency.
3. Toilet doors should be easy to use for people with limited strength or dexterity.
4. The floor surface should be well drained, waterproof, non-slippery and non-glare, and the toilets should be clear of any obstructions or hazards, both at ground level and at higher levels.
5. Sanitary bins should be provided.
6. Every toilet should have a functioning flush.
7. Washbasins with running water, soap, paper towels and hand sanitiser should be provided within toilet facilities.
8. The taps should be easy to use for people with limited strength or manual dexterity (for example, using a closed fist). Round taps should be avoided.
9. It is recommended that at least one washbasin is installed at a lower level with tap controls on one side, to increase accessibility for children and people with dwarfism.
10. If urinals are provided in the male toilet, at least one urinal should have a lower rim positioned at a maximum height of **43cm**, to improve accessibility for children and people with dwarfism.
11. The colour of toilets, basins and urinals should contrast with the background.
12. It is recommend that grab bars are installed near toilets, urinals and washbasins (see the information on handrails and grab bars in section 6: Accessible toilets, on page 46).
13. Consideration should be given to the relative number of male and female toilets in the health facility. It is recommended that the number of toilets for women should at least equal the total number of toilets and urinals for men.
14. It is recommended that at least one larger cubicle is installed in the general toilets. This can be useful for some ambulant people with disabilities, as well as parents with children.
15. There should be a functioning fire alarm installed in the toilet, with visual and audible signals.
16. Toilets should have sufficient natural or artificial light, good ventilation, and should be free from loud background noises. Flickering lights should be avoided.
17. Lighting should be laid out to create even distribution at floor level, and to minimise pools of light or areas of shadow.
18. Lighting levels in internal environments are recommended to be no less than **100 lux**; lighting over directional or informational signage, service counters, usable parts or where specific operations need to be performed, should be no less than **200 lux** at the working, usage or information surface.
19. Toilets should be clean, and should be free from strong smells.
20. Ambient air temperature should be designed to operate between **21°C** and **26°C (70°F and 79°F)** at all times of year.
21. Mechanical, ventilation and air-cooling systems should be designed so the air flow from diffusers/grills is not directed towards people using the toilet facilities.





Accessible toilets








06

6.1 General accessibility



1. Accessible toilet facilities for people with disabilities, built according to the standards presented in this section, should be available in the health facility.
 - Accessible toilets may be integrated within general toilet facilities. At least one accessible facility for men and one for women should be provided.
 - Accessible toilets may be separated from general toilets. These should be available for people of all genders to use, and should be located near the entrance and waiting areas.
 - In multi-storey buildings, at least one accessible toilet should be available on each floor.
2. Accessible toilets should be reached via accessible circulation paths with clear directional signs. See section 4: Circulation paths and internal wayfinding (page 33).
3. The accessible toilet should be clearly labelled with the international symbol of accessibility, alongside relevant written and tactile information. It is useful to incorporate a reminder that not all disabilities are visible.
4. The accessible toilet should have a sliding door or a door that opens outwards, to allow more space for a wheelchair to be manoeuvred inside. The door should not open inwards.
5. Toilets should have doors that can be locked from the inside, and released from the outside by staff in case of emergency.
6. Doors should be easy to use for people with limited strength or manual dexterity.
7. There should be a clear turning space of **150cm by 150cm** to ensure that a wheelchair user can go in and out, turn around, and use elements in the toilet.
8. Floor surfaces should be well drained, waterproof, non-slippery and non-glare.
9. The facilities should have sufficient natural or artificial light, good ventilation, and should be free from loud background noises. Flickering lights should be avoided.
10. Lighting should be laid out to create even distribution at floor level, and to minimise pools of light or areas of shadow.
11. Lighting levels in internal environments are recommended to be no less than **100 lux**; lighting over directional or informational signage, service counters, usable parts or where specific operations need to be performed, should be no less than **200 lux** at the working, usage or information surface.
12. Ambient air temperature should be designed to operate between **21°C** and **26°C (70°F and 79°F)** at all times.
13. Mechanical, ventilation and air-cooling systems should be designed so the air flow from diffusers/grills is not directed towards people using the toilet facilities.
14. The accessible toilet should be clean and free from strong smells.
15. The colour of key elements in the toilet should contrast with the background.
16. There should be a pull alarm system mounted on the ceiling and suspended at a height of **10cm** from the floor.
17. The emergency alarm system should be positioned near the toilet itself, easy to reach and easy to operate.
18. There should be a functioning fire alarm installed in the accessible toilet with visual and audible signals.



6.2 Toilet

1. The toilet should be positioned in the corner of the room.
2. The centre line of the toilet should be positioned no more than **50cm** from the side wall.
 
3. There should be a clear space of at least **90cm** on the open side of the toilet.
 
4. The toilet seat should be at a maximum height of **48cm** and a minimum height of **43cm**.
 
5. The following equipment should be easy to operate and should be positioned near the toilet, at a maximum height of **110cm** above the floor:
 - a. toilet paper dispenser
 - b. flush control (if hand operated)
 - c. detachable bidet shower head.
 
6. A sanitary bin should be located near the toilet.
7. The toilet should have a grab bar measuring **60cm** long on the side wall, located no more than **25cm** from the rear wall and at a maximum height of **68cm**. There should also be a moveable U-grab bar on the open side of the toilet, and a grab bar on the rear wall.
 

6.3 Washbasins

1. A washbasin, soap, paper towel dispenser and hand sanitiser should be provided near the toilet, at a maximum height of **110cm** from the floor.
 
2. The rim of the washbasin should be no more than **74cm** from the floor.
 
3. There should be a knee space underneath the washbasin.
4. The taps should be easy to use for people with limited strength or manual dexterity (for example, using a closed fist). Round taps should not be used.



5. It is recommended that tap controls are installed on one side of the washbasin, to increase accessibility for people with dwarfism and children with disabilities.
6. Vertical grab bars should be mounted around the washbasin.
7. A mirror can be mounted above the washbasin, with the lower edge no higher than **60cm** from the floor.

Figure 7: Accessible toilet, overhead view

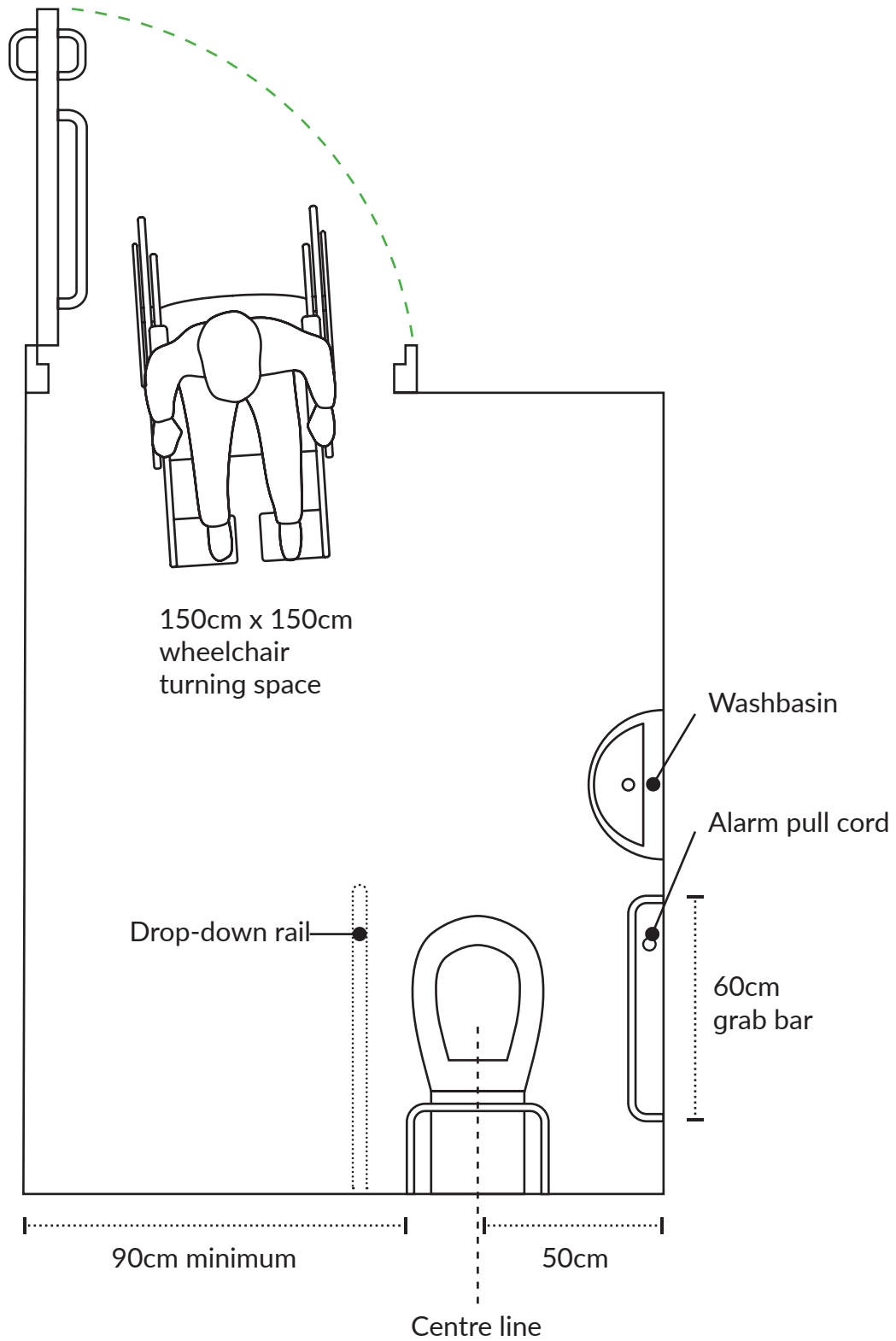
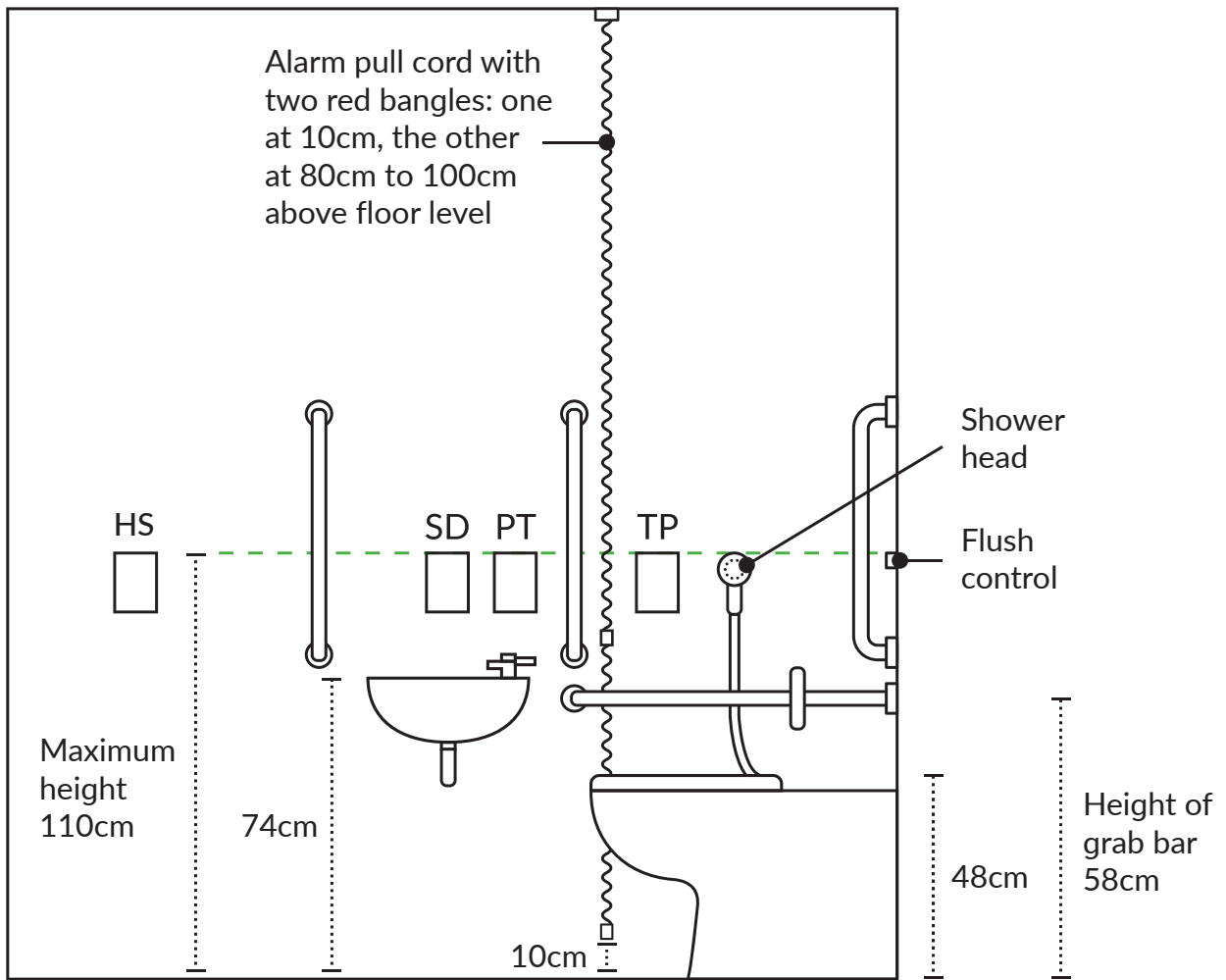
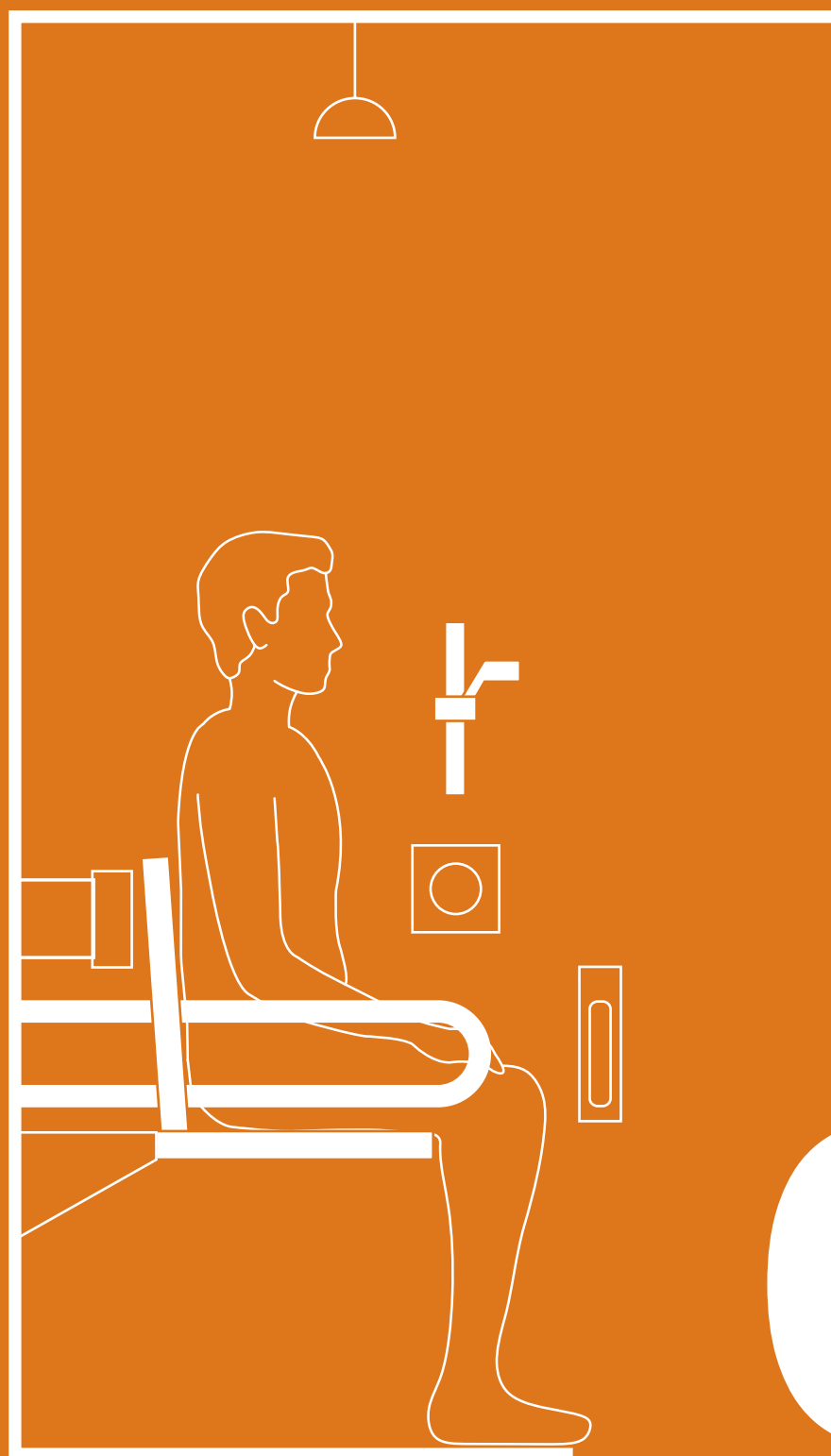


Figure 8: Accessible toilet, side view




- SD: Soap dispenser
- PT: Paper towel dispenser
- TP: Toilet paper dispenser
- HS: Hand sanitiser dispenser

Accessible showers



07

7.1 General accessibility

1. If showers are provided within the health facility for use by patients and staff, at least one accessible shower should also be available. This could be a standalone accessible shower, or could be incorporated within an accessible toilet.
 2. The accessible shower room should be reached via an accessible path.
 3. The accessible shower room should be provided for people of all genders to use, unless separate accessible facilities are provided for men and women.
 4. There should be clear directional signs to the room.
 5. The room should be clearly labelled with the international symbol of accessibility and relevant written information.
- 

**Male toilet
and shower**
6. The accessible shower room should have a sliding door or a door that opens outwards, to allow more space for a wheelchair to be manoeuvred inside. The door of the accessible shower should not open inwards.
 7. Doors should be lockable from the inside, and should be able to be released from the outside by staff in case of emergency.
 8. The shower room should be at least **200cm by 220cm** in size, with a clear turning space of **150cm by 150cm** to enable a wheelchair user to go in, out, turn around, and get close to the shower compartment.
-
9. Floor surfaces should be well drained, waterproof, non-slippery and non-glare, and the shower room should be clear of any obstructions or hazards at ground and higher level.
 10. The accessible shower should have sufficient natural or artificial light, good ventilation, and should be free from loud background noises. Flickering lights should be avoided.
 11. Lighting should be laid out to create even distribution at floor level, and to minimise pools of light or areas of shadow.
 12. Lighting levels in internal environments are recommended to be no less than **100 lux**; lighting over directional or informational signage, service counters, usable parts or where specific operations need to be performed, should be no less than **200 lux** at the working, usage or information surface.
 13. Ambient air temperature should be designed to operate between **21°C** and **26°C (70°F and 79°F)** at all times.
 14. Mechanical, ventilation and air-cooling systems should be designed so the air flow from diffusers/grills is not directed towards people using the facilities.
 15. The accessible shower should be clean and free from strong smells.

7.2 Shower compartment








1. The shower compartment should have inside dimensions of at least **120cm** by **120cm**.

2. There should be a folding seat at a maximum height of **48cm**, with a back rest. The centre line of the seat should be positioned no more than **50cm** from the side wall.

3. A folding grab bar should be positioned on the open side of the shower seat, at a distance of **82cm** from the side wall, and at a maximum height of **68cm**. A second folding grab bar should be positioned in front of the shower seat at a distance of **90cm** from the rear wall. A third grab bar should be fixed on the wall on the side of the seat.

4. A shower curtain should be able to be used from the shower seat. It should turn and close the entire shower compartment.
5. A fixed shower head should be positioned at a distance of **50cm** from the rear wall.

6. A detachable shower head should be positioned at a maximum height of **110cm**, and at a distance of **50cm** from the rear wall.

7. Shower controls should be located on the wall on side of the seat, at a maximum height of **100cm**, and at a distance of **50cm** from the rear wall.

8. The shower controls should be easy to use for people with limited strength or manual dexterity (for example, using a closed fist). Lever controls are more accessible than round controls.
9. Shower controls should include pressure controls and an automatic mixing valve so that hot water temperature does not exceed **49°C**, to minimise accidental scalding.
10. There should be a pull alarm system mounted on the ceiling and suspended at a height of **10cm** from the floor.

11. The emergency alarm system should be positioned inside the shower compartment. It should be easy to reach and easy to operate.
12. A shelf should be provided for toiletries, and should be accessible from a wheelchair and from the shower seat.
13. A towel rail should be positioned outside the shower compartment.

Figure 9: Accessible shower, overhead view

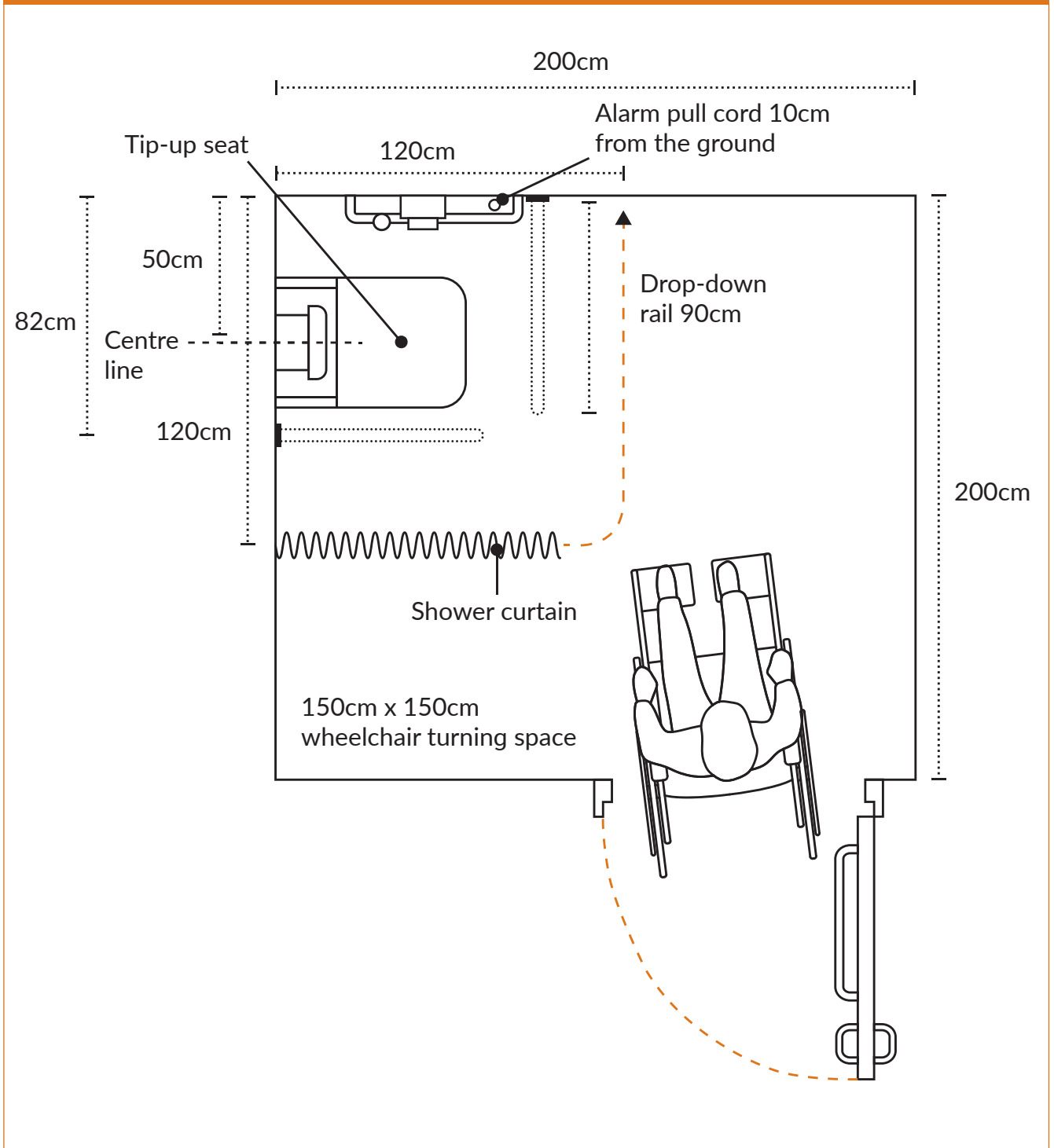
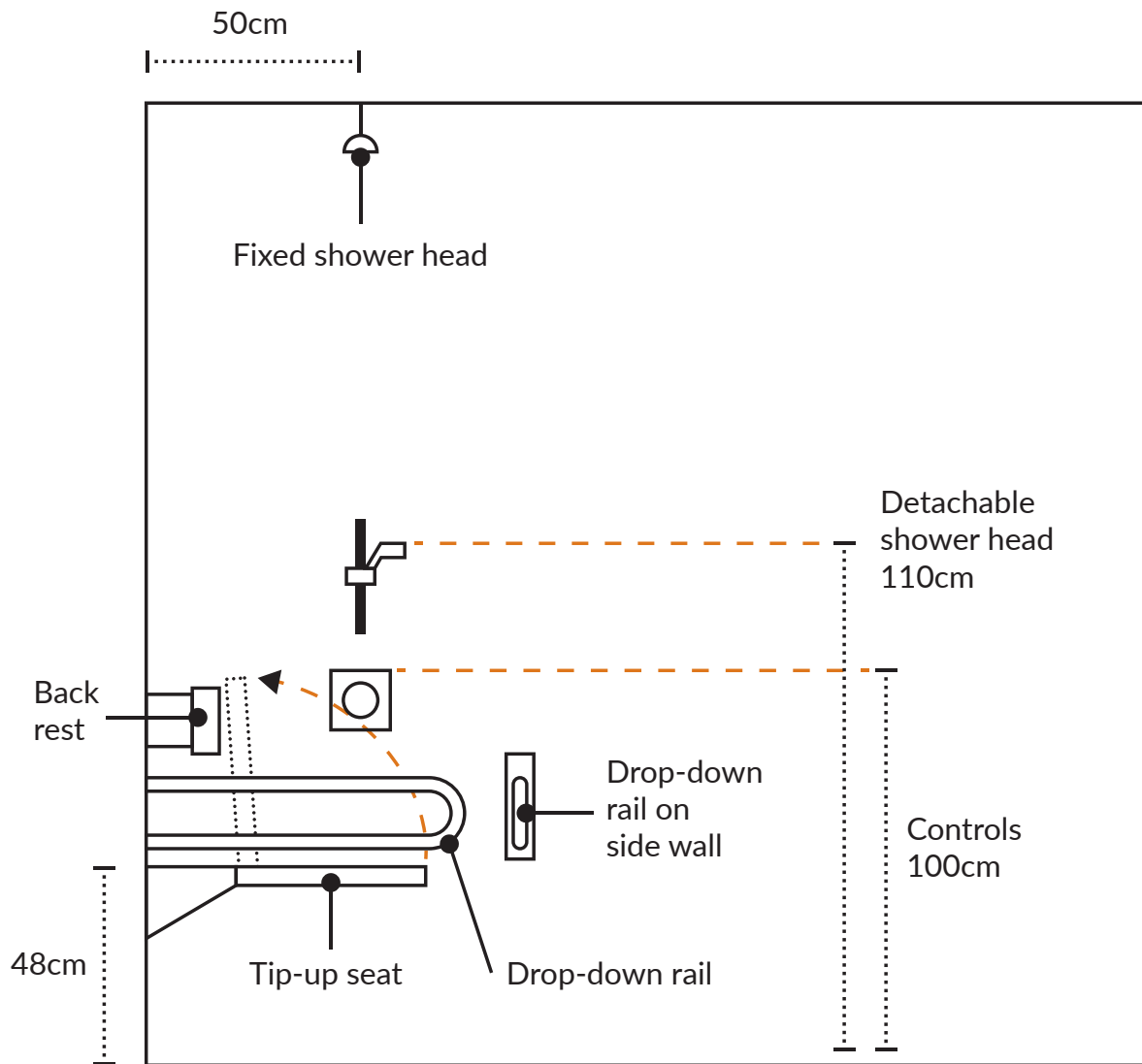


Figure 10: Accessible shower, side view



Lifts and wheelchair platform stairlifts



08

8.1 Lifts and wheelchair platform stairlifts

1. Multi-storey buildings should have accessible passenger lifts.
2. For existing buildings, and in exceptional circumstances where a lift cannot be installed, a wheelchair platform stairlift can be installed.

8.2 Lifts






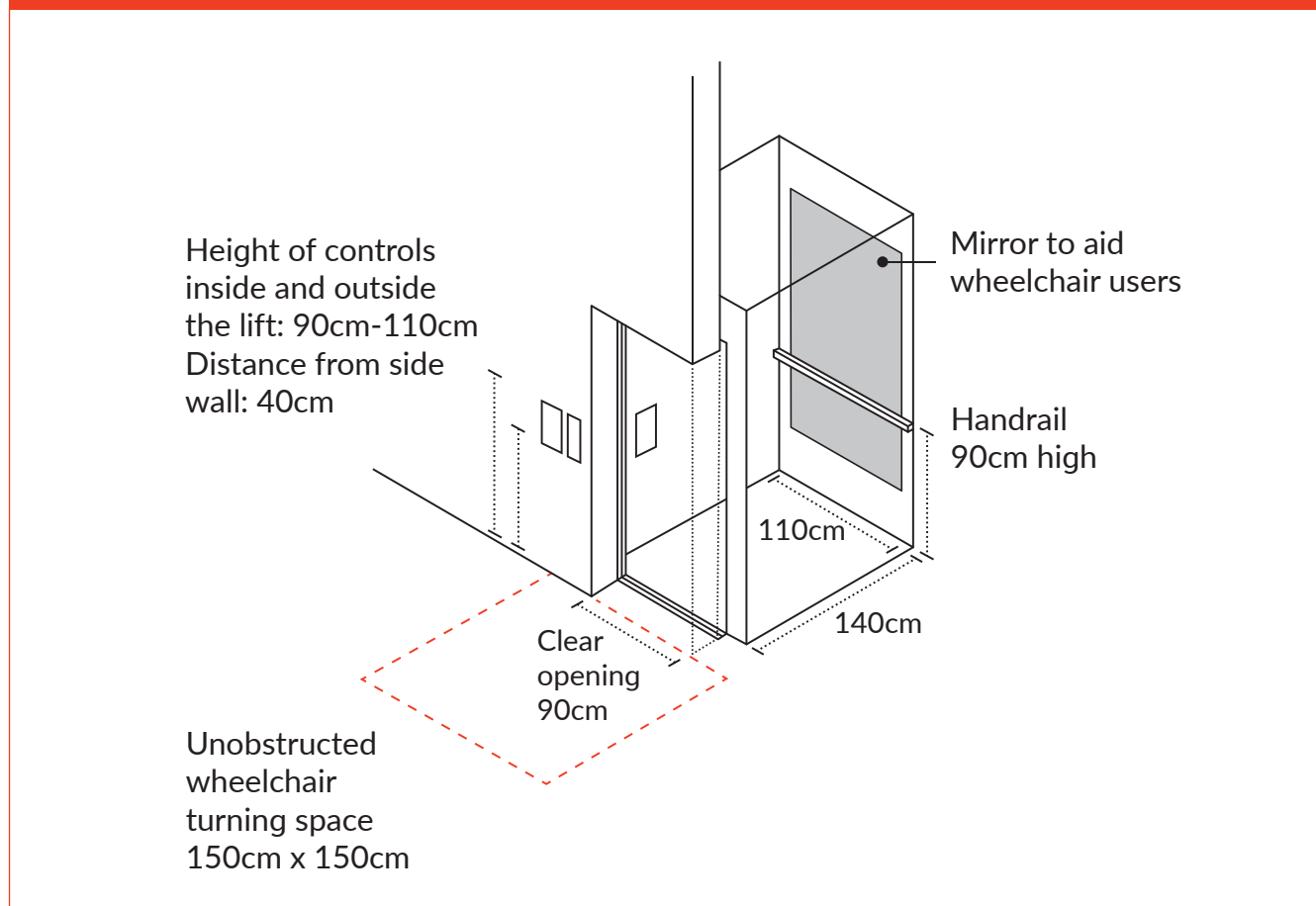
1. The entrance of the lift should have a clear opening width of at least **81.5cm**.

2. In front of the lift, there should be an unobstructed manoeuvring space of **150cm by 150cm**.

3. The internal space of the lift should have minimal clear width of **110cm** and minimal clear depth of **140cm**.

4. If the lift is smaller than these minimum dimensions and does not allow wheelchair users to turn around, a mirror should be mounted on the rear wall of the lift to enable wheelchair users to see the space behind them when leaving.
5. Lift controls inside and outside should be located at a height of between **90cm** and **110cm**, and at least **40cm** from any side wall. Buttons should be at least **1.9cm**.

6. The colour of the lift and of lift controls should contrast with the background.
7. Control buttons should have raised tactile characters to improve accessibility for people with visual impairments.
8. At least one handrail should be provided inside the lift, at a height of **90cm**. It should not obstruct lift controls.

9. The lift should have sufficient natural or artificial light and good ventilation, and should be free from loud background noises. Flickering lights should be avoided.
10. Lighting should be laid out to create even distribution at floor level, and to minimise pools of light or areas of shadow.
11. Lighting levels in internal environments should be no less than **100 lux**; lighting over directional or informational signage, service counters, usable parts or where specific operations need to be performed, should be no less than **200 lux** at the working, usage or information surface.
12. Ambient air temperature should be designed to operate between **21°C** and **26°C (70°F and 79°F)** at all times.
13. Mechanical, ventilation and air-cooling systems should be designed so that the air flow from diffusers/grills is not directed towards people using the lift.
14. Floor surfaces should be flat, firm, non-slippery and non-glare.
15. A suitable emergency communication system should be installed in the lift.
16. Lift door systems should be designed to allow at least **20 seconds** for people to enter or leave the lift without coming into contact with closing doors, and should be fitted with re-opening activators.
17. The lift should provide audible information to people using or waiting for the lift, indicating the arrival and departure of the lift, and the floor it has reached.
18. A fixed or folding seat should be provided within the lift.

Figure 11: Lift positioning and measurements



8.3 Wheelchair platform stairlifts

1. Wheelchair platform stairlifts should enable wheelchair users to move independently up and down stairs in buildings where passenger lifts are not available and cannot be installed.
2. There should be instructions in place to tell wheelchair users how to safely use the platform, combining written and visual information. These should be clearly visible on the platform.
3. The platform should be folded when in the parked or stationary position.
4. The platform should have minimum clear dimensions of **80cm by 125cm**.
5. Folding safety bars should be provided around the perimeter of the platform.
6. The speed of the platform should not exceed **15cm per second**.
7. The platform should be operated through continuous pressure on the controls. The controls should be easy to use for people with limited strength or manual dexterity.



Steps and stairs



09

9.1 Steps and stairs

1. When there are at least three or more steps, the steps or stairs should have uniform closed vertical risers. The height of the risers should be between **10cm** and **18cm**. Open risers should not be used.



2. All steps should have uniform horizontal treads. The depth of the treads should be between **28cm** and **42.5cm**.



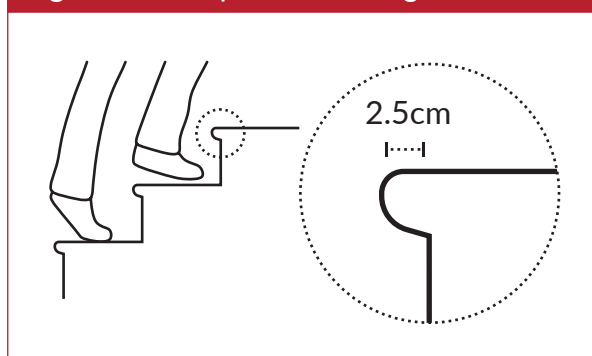
3. The steps or stairs should be at least **120cm** wide.



4. If steps have nosing at the edge of each tread, it should be less than **2.5cm**.



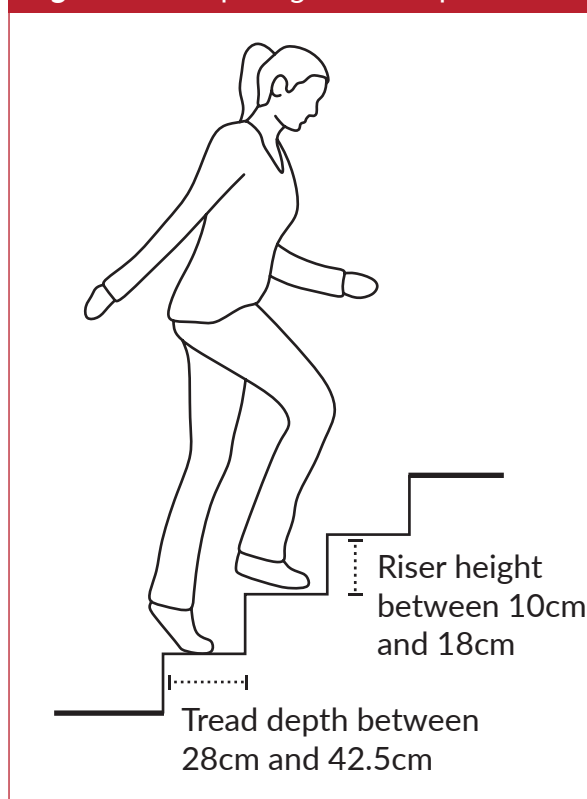
Figure 12: Step tread nosing



5. Step edges should be of a contrasting colour and be made from anti-slip material.



Figure 13: Step height and depth



6. The landing at the top and bottom of the stairs should measure at least **120cm** by **120cm**. The landing should be clear of any door swings or other obstructions.



7. Tactile warning blocks at least **91.5cm** deep should be installed at the landing of each flight of stairs (top and bottom).



8. All stairs should have handrails. For guidance, see section 9.2: Handrails on stairs (page 62).

9.2 Handrails on stairs

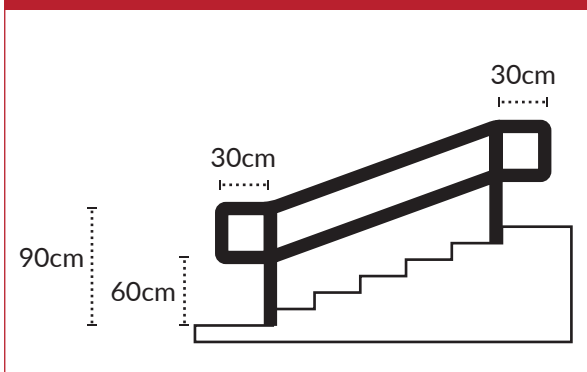
1. Stairs should have a double-height handrail on both sides, at a height of between **60-70cm** and **80-90cm**.



2. Handrails should extend **30cm** horizontally past the ends of the stairs.



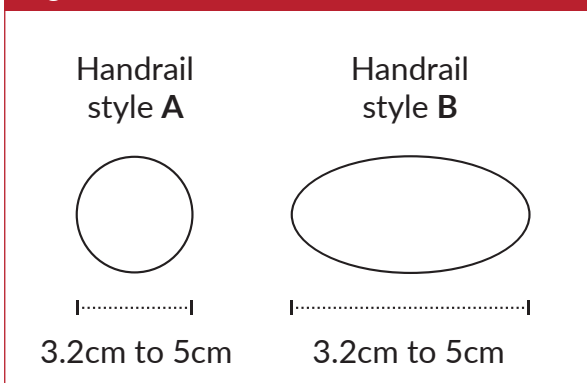
Figure 14: Handrail height and position



3. The colour of the handrails should contrast with the background.
4. The diameter of the handrails should be between **3.2cm** and **5cm**.



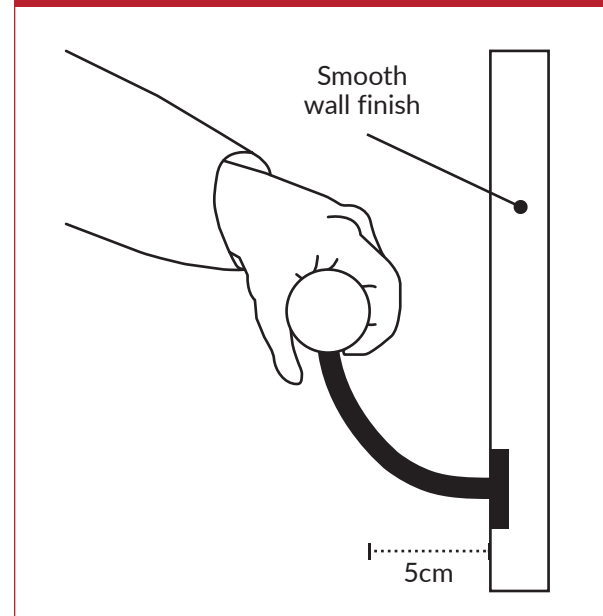
Figure 15: Handrail cross-section



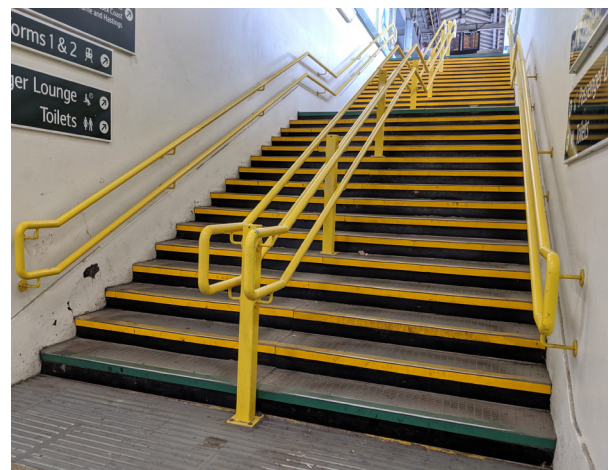
5. If the handrail is near a wall, there should be a minimum distance of **5cm** between the handrail and the wall.



Figure 16: Handrail wall clearance

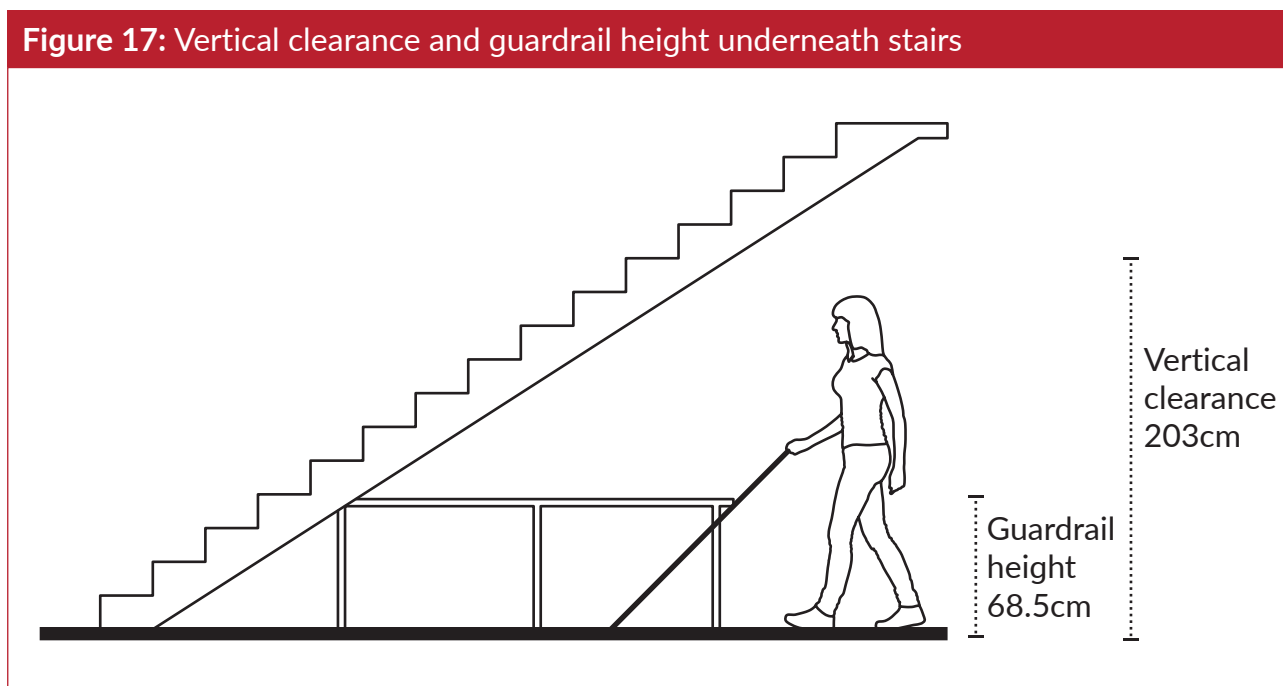


6. If the stairs are more than **300cm** wide, a handrail should be installed in the centre.



7. If stairs have space underneath, the vertical clearance should be at least **203cm**.

Figure 17: Vertical clearance and guardrail height underneath stairs



8. Where the vertical clearance is less than **203cm**, guardrails or other barriers should be installed to prevent people walking underneath. The leading edge of the guardrail or barrier should be positioned at least **68.5cm** above the floor.





Ramps



10

10.1 Ramps

1. All spaces outside and inside the health facility should be independently accessible to wheelchair users. If an area is accessed via steps or stairs, alternative access via a ramp or lift should also be provided. For information on lifts, see section 8: Lifts and wheelchair platform stairlifts (page 55).
2. Some people who can walk but have restricted mobility may find using a ramp more difficult than using stairs. Adverse weather conditions may also make external and internal ramps more dangerous. It is therefore recommended that both a ramp and stairs are provided.
3. Gradients of ramps should be as shallow as possible. Steep ramps create difficulties and are potentially dangerous for some wheelchair users, who may not have sufficient strength to propel themselves up a slope or to slow down or stop when going down a slope.
4. The recommended gradient for ramps is **1:20**. For short ramps up to **200cm**, the maximum gradient is **1:12**.



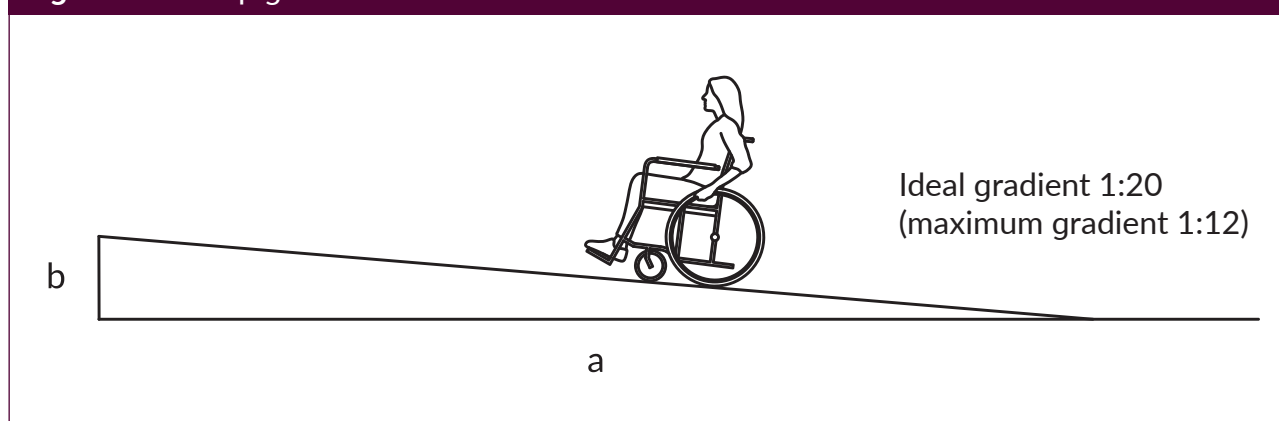
To calculate the gradient (see figure 18):

- Measure the length along the bottom of the ramp in cm (a).
- Measure the height in cm (b).
- Divide the length by the height ($a \div b$).
- If the answer is 20 or higher, then the gradient meets the standards.
- If the answer is less than 20, then the gradient does not meet the standards and is too steep.

For example:

- $a = 570\text{cm}$
- $b = 25\text{cm}$
- $570 \div 25 = 22.8$ (higher than 20)
- The gradient meets the standards.

Figure 18: Ramp gradient



5. The ramp should be at least **120cm** wide.



6. At the top, bottom and resting points of the ramp, there should be a level area of **167cm** by **167cm** to enable a wheelchair user to turn. The space should be clear of any swing doors or other obstructions.



7. Tactile warning blocks should be installed at the landing of each flight of stairs (top and bottom).

8. If the ramp is longer than **10m**, it should feature a resting point measuring at least **167cm** by **167cm**.



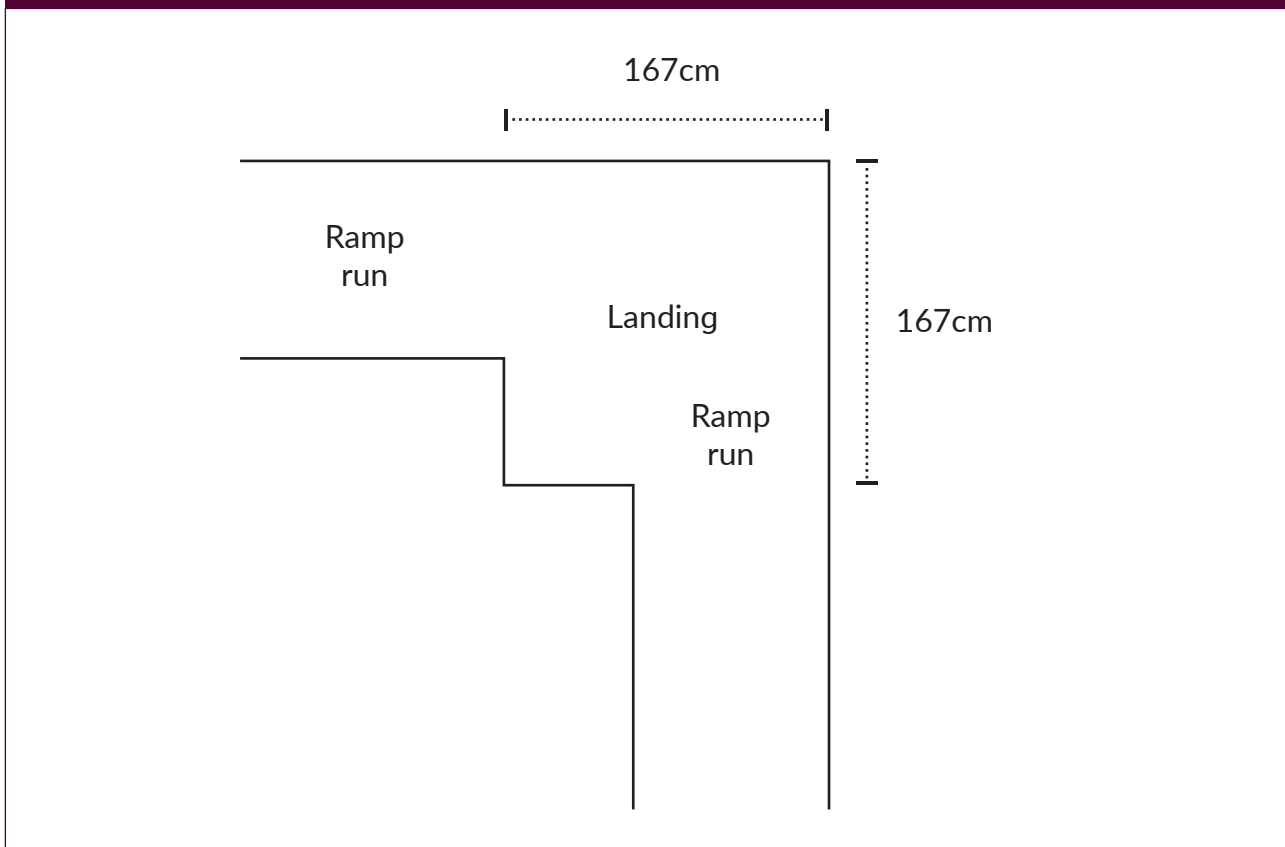
9. Where ramps return upon themselves, or where doors open out onto the ramp, the level platform area should be at least **167cm** by **167cm**, and an additional distance for any doors opening on to the landing.

10. If there is a change of direction, a landing measuring at least **167cm** by **167cm** should be provided.



11. All ramps should have handrails. For guidance on handrails, see section 10.2: Handrails on ramps (page 69).

Figure 19: Ramp landing areas



10.2 Handrails on ramps

1. Ramps should have a double-height handrail on both sides at a height of between **60-70cm** and **80-90cm**.



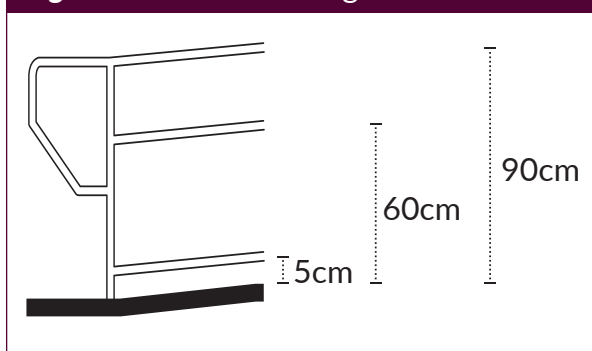
2. There should be a clear space of at least **120cm** between handrails.



3. If the ramp is not between two walls, it should have an edge protection (such as a small kerb or bar) at least **5cm** tall.



Figure 20: Handrail height

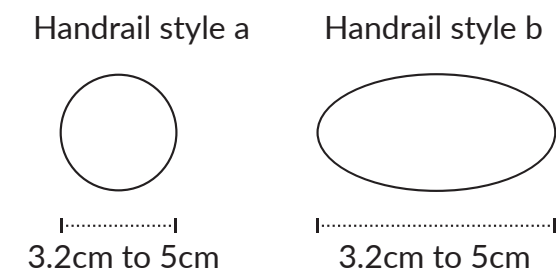


4. The colour of the handrail should contrast with the background.

5. The diameter of the handrails should be between **3.2cm** and **5cm**.



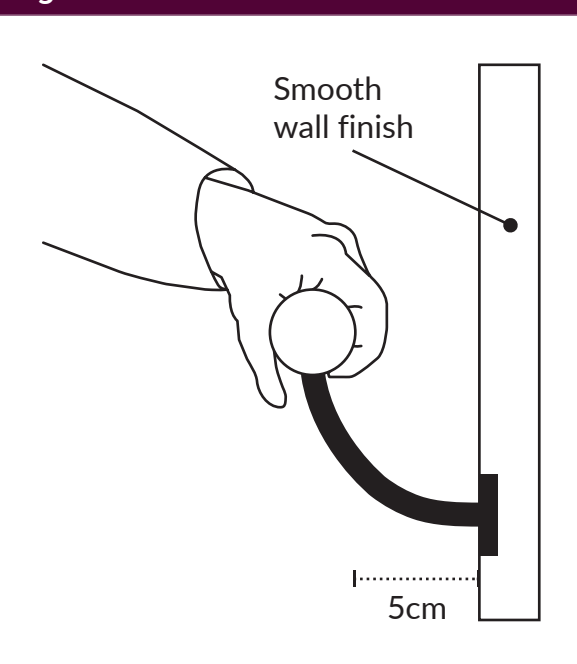
Figure 21: Handrail cross-section



6. If the handrail is near a wall, there should be a minimum distance of **5cm** between the handrail and the wall.



Figure 22: Handrail wall clearance



EYE WARD



Doors



11

11.1 Doors






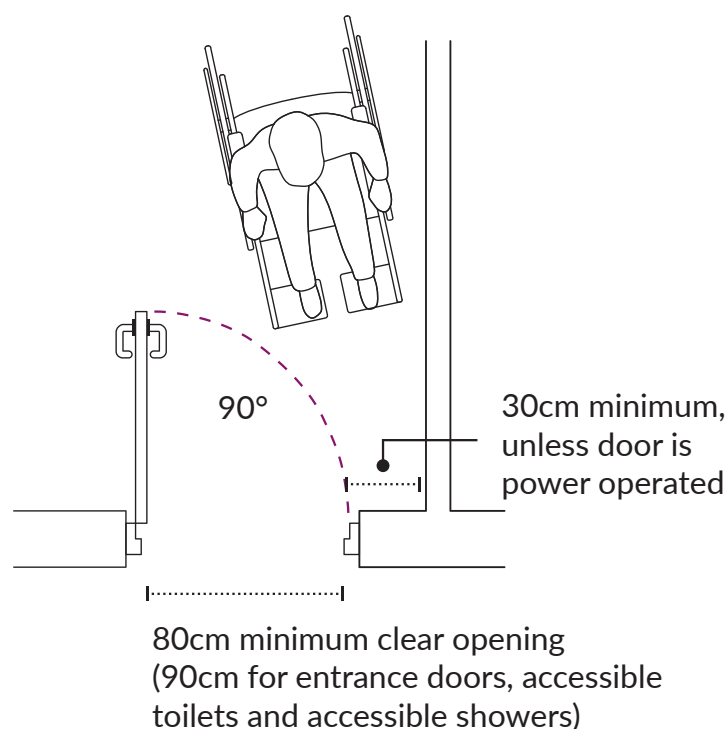
1. Doors should have a clear opening width of at least **81.5cm**.

2. For double doors, at least one of the doors should have a clear opening width of at least **81cm**.

3. Entrance doors and doors of accessible toilets and showers should have a clear opening width of at least **91.5cm**.

4. There should be unobstructed space of at least **30cm** on the pull side of the door, between the internal edge of the door frame on the opening side and the perpendicular wall, to allow sufficient space for a wheelchair user to manoeuvre and open the door (see figure 23). The height of the door should be at least **203cm**.

5. If the door has a threshold (raised surface), it should not be higher than **1.3cm**. Thresholds **1.9cm** high are allowed when they have a bevelled edge on each side with a slope not steeper than 1:2. If raised, the threshold should have as few upstands and slopes as practicable. Any upstand more than **0.5cm** high should have exposed edges chamfered or pencil rounded.

6. There should be sufficient manoeuvring space around the door. A wheelchair user must be able to manoeuvre to open and close it, pass through and turn around.
7. Doormats should be level with the floor surface and secured to the floor at all edges.
8. The colour of the door and the door frame should contrast with the surrounding wall.
9. If the door is transparent, it should be marked with red bands or stickers at multiple eye levels.

Figure 23: Door measurements

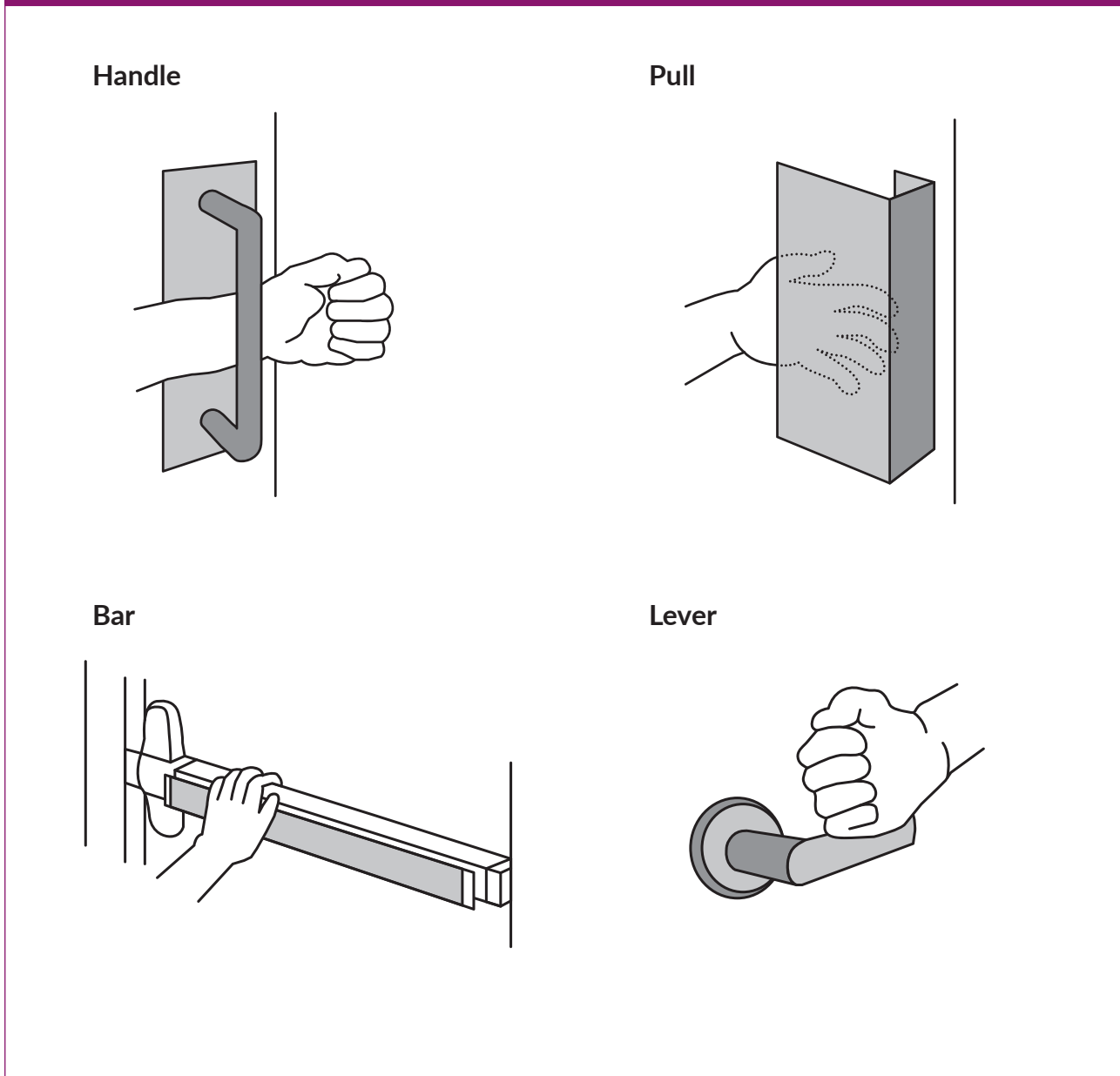


11.2 Manual doors

1. Doors should not be too heavy and must swing easily.
2. Operable parts (such as handles) should be between **91.5cm** and **116.5cm** above the floor. They should be able to be used with a closed fist, and should not require tight grasping, pinching, or twisting of the wrist. Round knobs should be avoided.



Figure 24: Examples of accessible handles



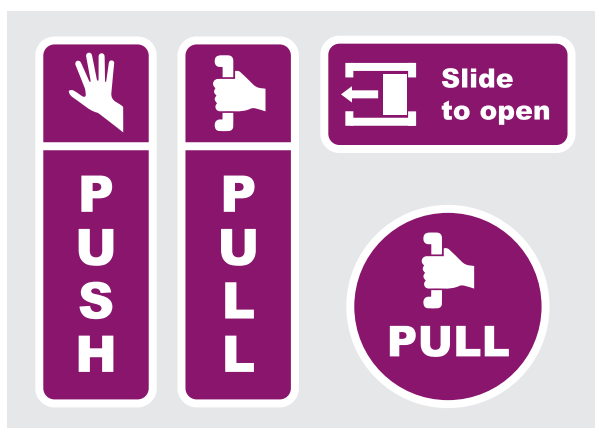
3. If the door closes independently, it should have a sufficiently slow closing speed. From the open position of **70 degrees**, the door should move to the closed position in at least **1.5 seconds**.
6. If the door is a swing door, the glazing panel should be two thirds of the width of the door. The glazing should be located at least **20cm** from the floor, and should be between **50cm** and **120cm** high.



4. Corridor doors should have kick plates at the bottom.



5. Visual information should be included to explain how to use the door.



7. Revolving doors are not considered to be accessible. If there is a revolving door, an accessible door (manual or automatic) should be positioned next to the revolving door.

11.3 Powered doors

1. Powered doors should have a sufficiently long opening interval (at least **5 seconds** is recommended) to allow everyone, including people who cannot react quickly, to safely operate and use the door.
2. Powered doors can be activated automatically, using sensors; or manually, using controls or buttons.
3. The manual control, such as a push button, should be located at a height of between **90cm** and **110cm**. It should be easy to use for people with limited strength or manual dexterity (for example, using a closed fist).



4. The manual control should be located **140cm** from the edge of the open door, so the person activating the control does not need to move to avoid contact with the opening door.



5. The colour of the manual control should contrast with the background.
6. An audible signal should be used to indicate when the door is opening or closing.
7. The powered door should incorporate a safety stop mechanism that is activated if the door starts to close when a person is passing through.
8. The powered door should be manually operable in case of power failure.
9. Where automatic doors open towards users with disabilities, the swing pattern of such doors should be defined by a highly contrasting and textured surface (or mat) at grade, which projects a minimum of **30.5cm** beyond the door swing. Alternatively, suitable guards, which project a minimum of **30.5cm** beyond the door swing, should be provided as an aid to persons with visual impairments. A minimum **30.5cm** clearance should be provided between the guard and the opened door.

Fire alarms and escape routes



12

12.1 Fire alarms and escape routes

1. In case of fire or other emergency, exit doors must be wheelchair accessible and clearly marked.



2. A functioning fire alarm should be installed, incorporating both visual and audible signals.



3. Safe refuge points should be provided on all upper floors. These should be clearly signed and easily identifiable.

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