



Dementia Inclusive Community Guide from a Universal Design approach

Creating communities that include and support
people with dementia

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Authors:

Fiona Walsh, BArch FRIAI RIBA ARB.

Greg Walsh, BA (Hons) Bus. Studies, Dip. Bus. Mgt.

Senior Atlantic Fellows for Equity in Brain Health, Global Brain Health Institute

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What is dementia?

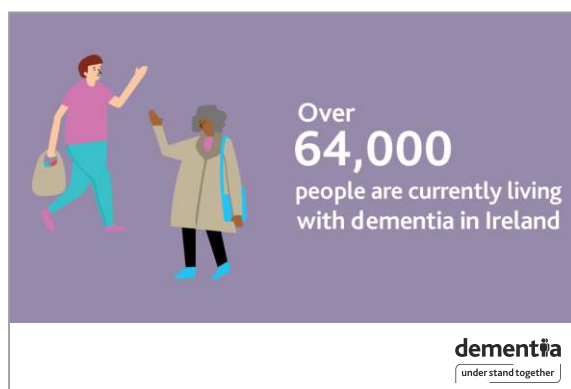
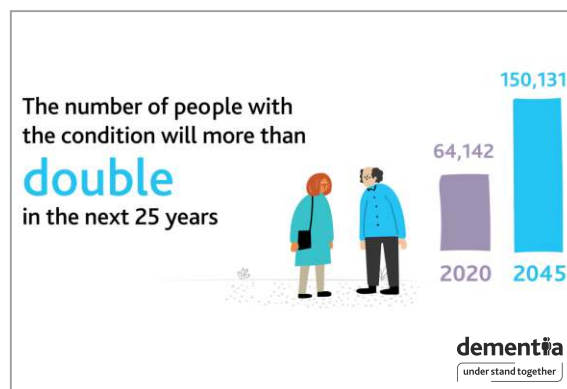
Dementia is the name of a range of conditions that cause changes to the brain. These changes affect memory, thinking, language and the ability to carry out everyday tasks. There are over 400 different forms of dementia. Alzheimer's Disease is the most common, followed by Vascular dementia, Lewy bodies and Frontotemporal dementia.

The symptoms of dementia are different for everyone. They change as the disease progresses.

Alzheimer's is the most common underlying disease accounting for approximately 62% of cases.⁽¹⁾

Incidence and prevalence of dementia⁽²⁾

Every year there are 11,000 new cases of dementia in Ireland with over 64,000 people living with dementia in 2020. This is projected to grow to over 150,000 people by 2045. An estimated 500,000 family members are affected by dementia in Ireland. Most people with dementia live in the community. It is vital that they can participate in community life and access services and public spaces.



Dementia inclusive design

The majority of people with dementia want to stay active, engaged and valued members of their communities.

We have improved and adapted our environment to support people with physical impairments, so they can access places and services on an equal basis.

We now also have the knowledge and expertise to design and improve access for people with dementia.

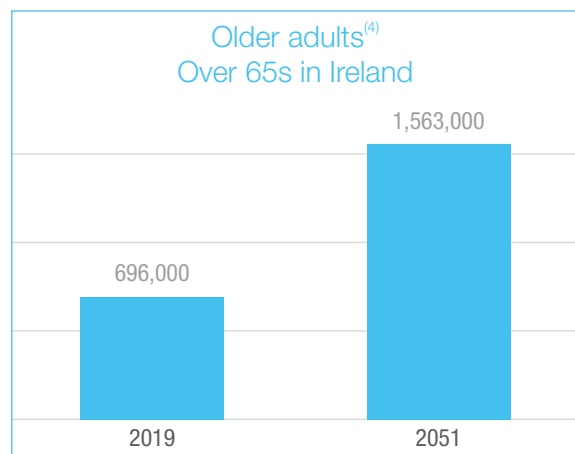
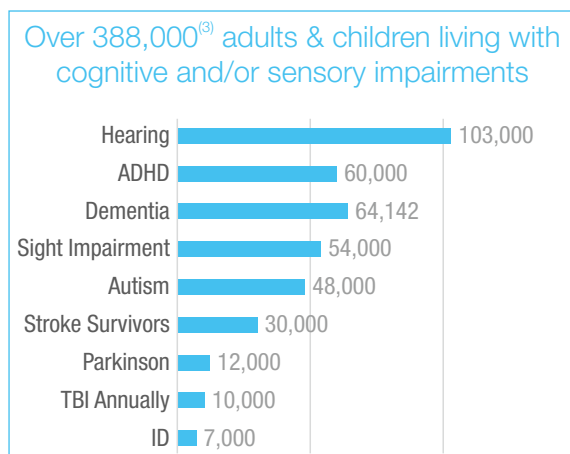
To design and build environments that are accessible and support people with dementia to stay connected, we must understand how the environment can affect a person who may experience physical, sensory and/or cognitive difficulties.

Design can aid greater dignity, independence and autonomy.

Dementia can affect	Impact on the person	The role of inclusive design
memory, reasoning, judgement, planning, focus and decision making	might find it difficult to find their way and navigate the places they visit	provide cues, prompts and signage to support memory and way-finding
physical mobility and balance	may have difficulty with day-to-day activities such as walking, standing and sitting	well-designed seating and handrails to offer resting places and additional support
ability to see, hear, taste, smell and touch	might have difficulty understanding and using their surroundings	help compensate for a loss of senses and support people to understand and read their environment

Who will benefit from inclusive design?

Everybody benefits, especially older adults and people (including children) living with cognitive, sensory and/or physical impairments.



We can design towns and cities, parks, public buildings, transport hubs, homes, hospitals etc. to support the needs of people with dementia. Accessibility is the foundation on which we can start to build inclusive communities.

Designing inclusive environments benefits everyone.

The impact of poor design

At some point, we have all experienced feeling uncomfortable when we walk into a room, a building or an exterior space. This can be due to excessive noise, bright or dark lighting, or an unpleasant odour. We rarely stop and analyse the feeling, we react. We engage with the spaces we feel comfortable in and we withdraw from the spaces which make us feel uneasy.

Dementia can make people more sensitive to their environment. They can become disorientated, lost and feel agitated or stressed if the environment can't compensate for their needs. This can result in feelings of exclusion, loss of confidence, withdrawal and isolation. When people find an environment too challenging to navigate, they will withdraw from it.

The fear of getting lost or not finding the required facilities can be overwhelming for a person with dementia. Asking for and following directions can also be challenging. This can result in loss of independence and autonomy.

If a sense is impaired, a person will rely on their remaining senses to understand and interpret their surroundings. With auditory and/or visual clutter the eyes and mind are unable to rest. They can have difficulty focusing on the relevant and filtering out irrelevant information. Noisy and cluttered surroundings can cause a sense of chaos, stress, anxiety and disharmony.

Auditory overload can occur in busy crowded spaces and places. Background music can be overwhelming for a person with dementia. Noise can also hinder and/or prevent clear verbal communication.

Poor lighting and lack of contrast can make the environment difficult to interpret and understand. High contrast, if used in the wrong setting, can also be problematic, particularly on floors where it can give the illusion of a step, hole or change in level.

Sometimes older adults will cite 'not enough toilets' as an issue when they are out and about and those that are provided sometimes do not meet their needs. If a person experiences the humiliation of not finding a toilet in time, they will lose their confidence and withdraw from public spaces.



Design interventions

We should consider the following when building inclusive communities.

1. Layout and way-finding

We can design public places and buildings that are easy to navigate and understand. Familiar and predictable layouts help.

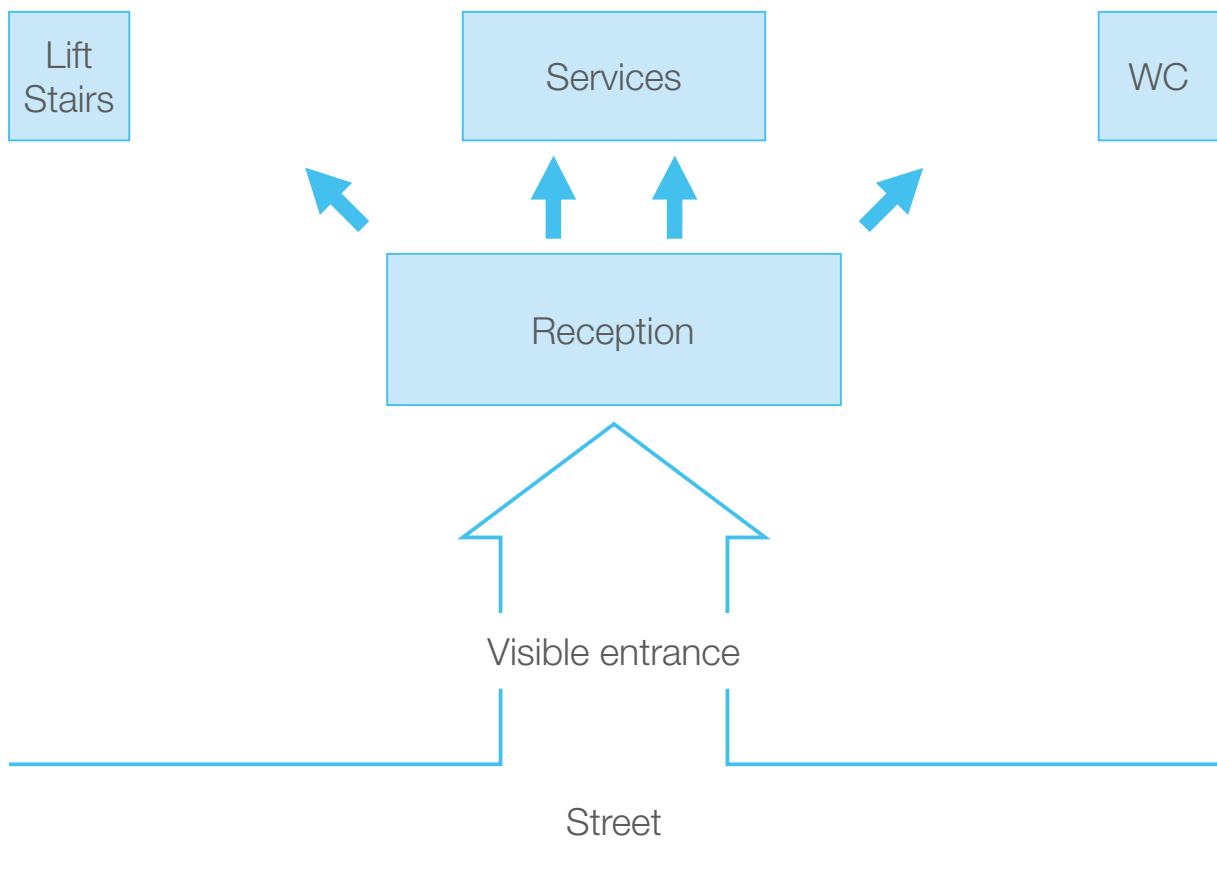
Good layout and way-finding is:

- A familiar layout with easy access to essential services and facilities such as information, reception, toilets, seating, lifts and stairs.
- Cues, prompts and signage to support memory, orientation and way-finding.

From the outset of the design project, an inclusive layout should be considered.

The route to and through a building should be intuitive.

Support facilities and services should be easily identified and/or clearly signposted.



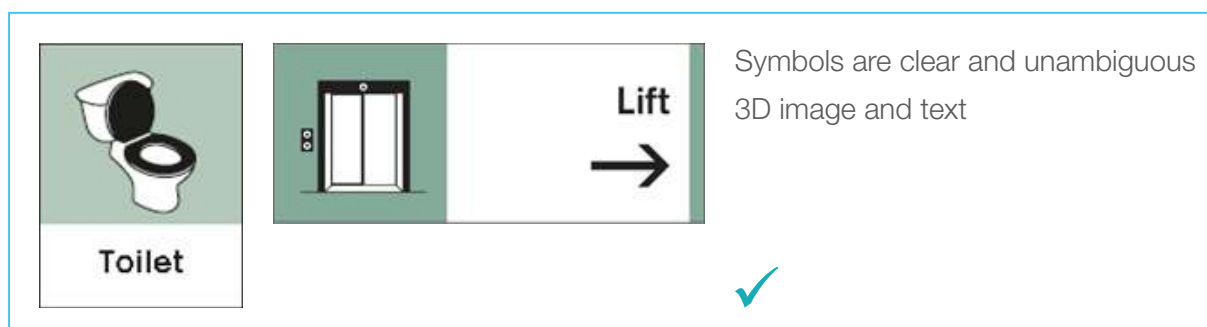
2. Signage

A core principle of inclusion is to be able to find your way around without assistance.

Good signage is:

- Consistent in style and design.
- Providing directional signage at all decision points and changes of direction.
- The correct font, colour, size, position, height, frequency and contrast with the surroundings.

Signage designed for people with dementia is a science that has advanced in understanding in recent years.

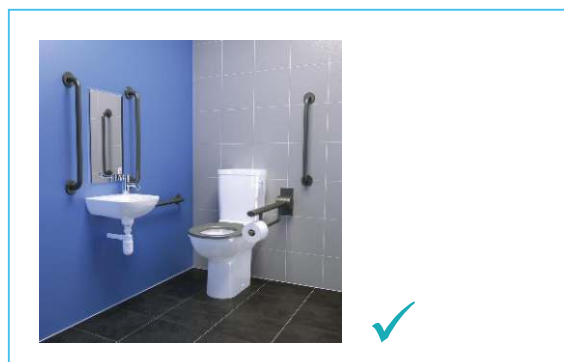
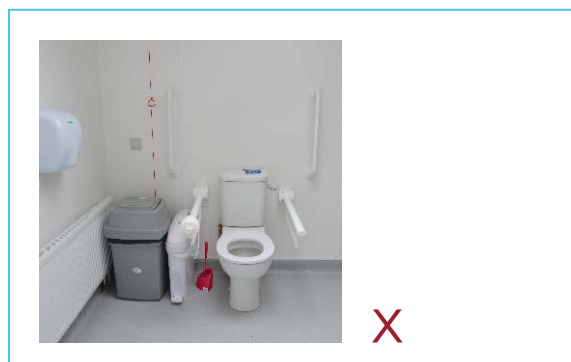


3. Toilets

Provide independently accessible toilet facilities that meet the needs of people with a wide range of abilities.

Good toilets have:

- Accessible toilet facilities and they are clearly identifiable.
- Surface finishes and colour contrast to help identify key objects and support spatial orientation.
- A unisex toilet facility available for use by people with complex and multiple needs.

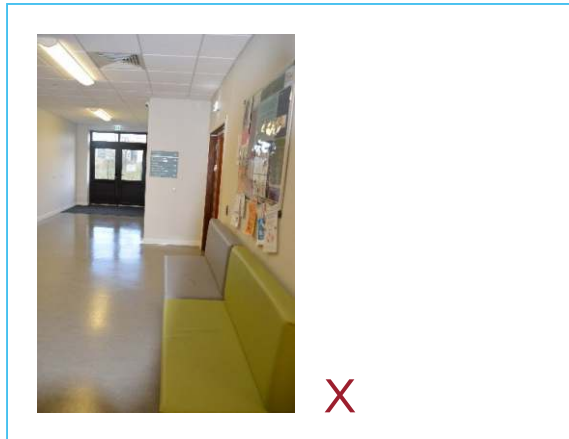


4. Seating

Seating is an essential amenity which provides somewhere to stop and rest. It also provides social spaces for people to gather. Seating, in a welcoming environment, will encourage people to use our public spaces and services.

Good seating:

- Is recommended in regularly used pedestrian areas at 50m intervals and at the top and bottom of an incline on a route.
- Has back support and arms to support unassisted use.
- Contrasts visually with the background against which it is seen.



5. Steps and ramps

By their very nature changes in level present a hazard. It is important that ramps and steps are designed and built to provide safe access to all users.

Building Regulations 2010, Technical Guidance Document M, Access and Use provides clear and detailed guidance for the design of steps, stairs and ramps. This guidance must be followed in detail if we want to provide safe environments for all users.



6. Light, colours and visual contrast

Ageing eyes need brighter light to support vision and it can take more time to adjust to marked changes in light levels. Contrast between objects supports visual clarity. For example, white on white is difficult to see. Contrast and lighting, if used correctly, can support inclusion and access.

Good light, colour and visual contrast:

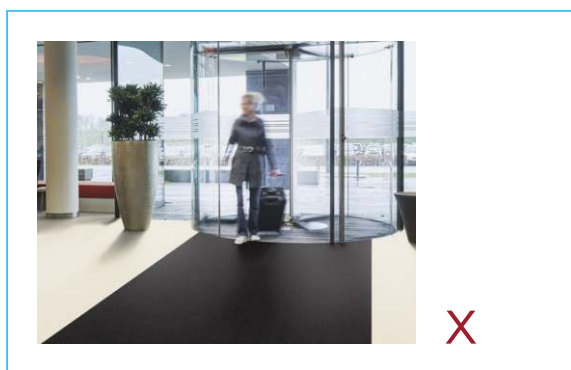
- Use contrast between surfaces to enhance the three-dimensional appearance of a room. This supports depth perception and orientation.
- Use contrast between objects to aid vision, understanding and clarity.
- Passes the black and white photo test. Take a black and white photo of the area. If elements are clearly visible, there is good contrast.
- Ensures lighting is bright and even. Shadows and uneven lighting can make it difficult for a person with dementia to see clearly and understand their surroundings.



Glare and white on white make it difficult to read the depth, shape and size of the room



Colour and contrast can aid visual understanding and depth perception



Contrasting mat could be misinterpreted as a hole or change in level



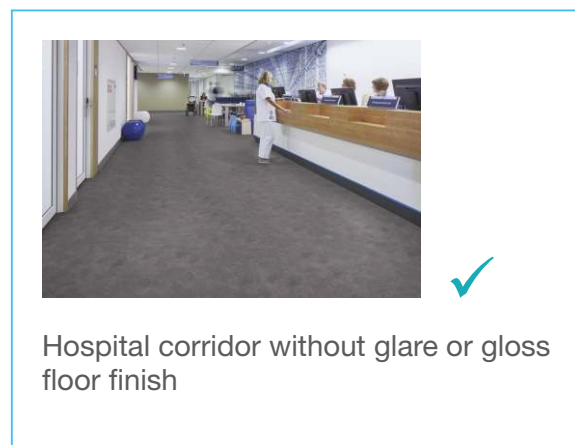
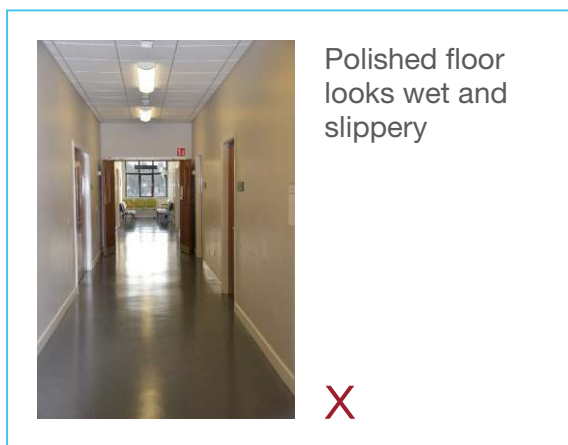
Reducing contrast between the mat and flooring support inclusion and visual understanding

7. Surface finishes and materials

The surface finishes and materials used in a building or external space give clues and prompts that can be seen, heard or felt. This can help a person to orientate themselves and find their way around. The selection of materials can support a person with dementia to feel comfortable and calm in their surroundings.

Good use of surface finishes and materials:

- Avoid visual clutter.
- Avoid shiny, polished, reflective and gloss finishes. People with dementia can have a lower tolerance of glare, and reflections can be misinterpreted.
- Use a matt floor finish to reduce glare and reflection.
- Patterned surfaces should be used sparingly. They can add to the visual complexity of an environment and can be misinterpreted.



8. Noise and acoustics

The acoustic environment is important.

To reduce noise:

- Consider using materials that reduce reverberation and reflected sound.
- Minimise background music and noise where possible.



Summary

Designing enabling and inclusive environments does not result in additional costs for new build projects, refurbishments and planned upgrades. It requires knowledge and informed choices to plan an environment and select materials and finishes that can support people as they age. Through inclusive design we enable people with dementia to live independently, with dignity and autonomy for longer⁽⁵⁾. We can use capital expenditure to build according to best practice design guidance. This will create sustainable and functional buildings and environments for the future.

For people with dementia, we need to honour the UN Convention on the Rights of Persons with Disabilities:

Article 9, Accessibility

Article 19, Living independently and be included in the community

The knowledge and skills to design and build to support the needs of people with dementia is available, and today we can build truly inclusive communities.



Dementia: Understand Together

Led by the HSE in partnership with the Alzheimer Society of Ireland and Age Friendly Ireland, the campaign addresses one of six key priorities of the Irish National Dementia Strategy and was initiated in 2016 through a funding partnership between the HSE and Atlantic Philanthropies. Dementia: Understand Together is now supported by over 40 partner organisations across Ireland, including in the retail, transport, banking, health, voluntary and community sectors. These organisations, together with over 340 community champions, are leading the way in creating communities that actively embrace and include those living with dementia and their families.

Authors

Fiona Walsh is co-founder and principal architect at DDS Architects Ltd (www.ddsarchitects.org). Fiona is a specialist in inclusive dementia design and is a Fellow of the RIAI (Royal Institute of the Architects of Ireland), a member of the RIBA (Royal Institute of British Architects) and a Senior Fellow for Equity in Brain Health at the GBHI (Global Brain Health Institute) www.gbhi.org which is based at Trinity College, Dublin, Ireland, and UCSF (University College of San Francisco, USA).

Greg Walsh is co-founder and managing director of DDS Architects. Greg is a former senior life science executive who worked with US multi nationals for over 20 years. He now specialises in inclusive design. He is also a Senior Fellow for Equity in Brain Health at the GBHI.

Greg and Fiona work actively with the World Dementia Council, Alzheimer's Disease International, National Dementia Office, NHS on promoting a greater understanding of dementia inclusive design. They have a number of publications on the topic.

Advice and Training

Designing inclusive environments requires expert knowledge and understanding. Inclusive design is a developing science and as awareness increases, we will see our built environment further adapt and change to support the needs of people living with cognitive, sensory and/or physical impairments.

For more information on the campaign and inclusive design training and expertise, please visit www.understandtogether.ie

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