Equal access is not an optional extra

How inclusive design improves wellbeing in healthcare facilities









Midland Hospital, Perth, Australia Photography by Peter Bennetts **Acknowledgment of Country** We acknowledge and respect Traditional Owners across Australia as the original custodians of our land and waters, their unique ability to care for Country and deep spiritual connection to it. We honour Elders past, present and emerging whose knowledge and wisdom has, and will, ensure the continuation of cultures and traditional practices. Hassell Contact 61 Little Collins Street Michaela Sheahan Η Melbourne 3000 **Senior Researcher** VIC, Australia msheahan@hassellstudio.com hassellstudio.com +61 03 8102 3000 @hassell_studio Inclusive design is good design 1. 4 Design for different abilities 2. 3. 4. 6 7 8 **Design for gender and sexuality Design for Faith and culture** 5. LO The cost myth 6. 11 A journey and a destination 7. Conclusion 12 **References** 8. 13

INCLUSIVE DESIGN IS GOOD DESIGN

Inclusive design is not aspirational, it is fundamental. The places we create should reflect and include the voices of the many different people we encounter in our lives every day. This is particularly true for the essential services our communities expect and need, like healthcare. How can we design hospitals and other healthcare facilities where everyone feels included? The answer is to give people choice.

Inclusive design crosses a broad spectrum of ideas and communities. One particularly clear definition comes from the Victorian Department of Transport in Australia, which explains inclusion as "... an active process of change or integration, as well as an outcome, such as a feeling of belonging. Inclusion recognises, respects and values the inherent worth and dignity of all people. It is about advancing a place that includes everyone and excludes no-one."¹ Inclusive design is also sometimes referred to as universal design, a term coined by wheelchair bound architect Ron Mace, who developed in 1973 the first standards for accessible buildings in the USA.² Universal design is also known, with subtle variations, as design-for-all, human centred design, design for diversity, and user-centred design.

In 2012, the Center for Inclusive Design and Environmental Access at the University of Buffalo developed eight principles of universal design,³ which encompass what we mean by inclusive design in this paper:

Eight principles of universal design

- → Comfort Are actions – like reaching for a hand rail – within desirable limits of body function?
- → Body fit Does the design accommodate a range of body abilities and sizes?
- → Wellness Does the design promote health and protect from germs and hazards?
- → Social integration Are all groups treated with respect?
- → Understanding For things that need to be operated, are the uses clear?
- → Personalisation Are there opportunities for personal choice?
- → Cultural appropriateness Is the design respectful of cultural values?
- → Awareness Is signage easy to see?

Space is just one part of the inclusion equation. Education and training in cultural competencies, workplace policies and anti-discrimination legislation can all contribute to a more inclusive environment, but our focus is designing the physical environment to cater for the broadest possible range of needs.

We could argue that this has always been the goal for designers, but in practice, places and spaces have historically excluded many people – public toilets for women appeared in London in the 1890s, forty years after men's facilities.⁴

In Australia, the first women were elected to Parliament in 1943 but a women's toilet was not provided for female members in the building until 1974.⁵ Disability Discrimination Acts that legislated equal access to buildings came into force in Australia in 1992⁶ and in the UK in 1995.⁷

In more recent times, social movements such as Black Lives Matter and the LGBTIQ+ community have campaigned for minority and marginalised groups, and contributed to public discourse on the right for everyone to feel safe and comfortable in public places. So inclusion has been a moving target, but current approaches in design generally relate to three groupings:

- **1. Different abilities** Age, physical and intellectual disability, medical conditions and neurodiversity
- 2. Gender and sexuality Male/female and LGBTIQ+ identities
- 3. Faith and culture Religion, cultural norms and indigeneity

Each group has its own unique sociopolitical characteristics and histories, but at their heart share common goals: dignified, comfortable and equitable access to spaces and places for all. Hospitals, where the wellbeing of patients is the priority, are the obvious places to embrace the goals of inclusive design.

Demographic variations in a healthcare service will necessitate different design responses. A particular faith or migrant group may be prevalent in the community, or the hospital may serve an area with a large proportion of senior residents. In some regional areas of Australia, for example, indigenous populations are a significant service user, while in metropolitan hospitals the cultural requirements are much broader.

There is no magic formula of course. The important first step in delivering inclusive design is to understand any specific groups' particular needs, and to consult with them about how best to accommodate those requirements.

The sheer diversity of any population makes the task of including everyone in every way impossible. The Centre for Architecture and the Built Environment(CABE) UK points out:

"An inclusive environment does not attempt to meet every need, but offers a choice where a single design solution cannot accommodate all users."

By considering people's diversity, however, it can break down barriers and exclusion and will often achieve superior solutions that benefit everyone."⁸



Royal Melbourne Hospital Emergency Department, Melbourne, Australia. Photography by Dianna Snape.

DESIGN FOR DIFFERENT ABILITIES

Age, physical disability, medical conditions and neurodiversity

In the UK, 34% of the adult population have an impairment.⁹ In Australia, it's around 18%.¹⁰ These figures vary (depending on definitions) but are significant none-the-less, and increasing worldwide as populations age.

Accommodating people with physical disabilities and medical conditions is the very purpose of a hospital setting – accessible circulation and amenities are incorporated by law and for practicality in healthcare building standards, as are considerations of patient size (bariatric beds and rooms), age (furniture and equipment for children and the elderly), and mobility (tactile indicators for the vision impaired).

The general effects on patients of environmental factors such as lighting, views, art and acoustics, are well researched and proven, but there are circumstances where individuals may not benefit uniformly, or at all, from these things.

For instance high levels of lighting that help to minimise medical errors can be distressing for patients with some eye conditions. This is why choice is important. Where a space is negatively affecting a patient, options to alter the characteristics (close the blinds, dim the lights, move into a more private space) help to alleviate physical and emotional discomfort.

More recently researchers have begun to explore the effects of environmental design on neurological and other 'invisible' conditions such as autism and dyslexia, as public awareness and diagnoses of these increase. Behavioural and neurological conditions are of particular concern in paediatric settings.

One study into designing health facilities for young people with autism spectrum disorder concluded that sensitive environmental design was particularly important in the Emergency Department because of the volume of activity, noise, light and visual clutter.

The research suggests that to mitigate sensory triggers, designers should provide quiet waiting areas or private patient rooms, dimmed lighting, and distraction items such as toys. ¹¹

Similarly, patients with dyslexia, estimated to be up to 10% of the population in Australia,¹² will benefit from inclusive wayfinding and signage design. Font selection for signage is crucial. Pictograms are also useful and have the added benefit of communicating important information to patients who don't speak the local language.



Autism

Architecture for Autism ASSPECTS Autism Design Index¹³

Dyslexia

British Dyslexic Association Dyslexia-friendly Style Guide¹⁴

Dementia

Health Research Board, Ireland Dementia Friendly Hospitals Design Guidelines ¹⁵

Children

Designing for Children's Rights Design Guide¹⁶

DESIGN FOR GENDER AND SEXUALITY

Male/female and LGBTIQ+ identities

While designing for age and ability differences is well advanced, issues of gender and sexuality are more sensitive, particularly when coupled with faith and cultural practices.

Toilets are often first on the agenda in discussions about inclusive design. The issues of sex, sexuality and gender in these private spaces are critical considerations. Specifically: language (what do we call these spaces?); number (how many do we need to provide?); and category (how do we split different genders and identities without excluding anyone?).

Where space is tight (as it usually is in hospitals) minimum requirements are often the default position. The Building Code of Australia stipulates male and female toilets plus 'unisex' accessible facilities. But there is growing acceptance of the need to take a more inclusive approach to gender.

Choice is the key. Where possible, hospitals should provide separate male, female and all-gender facilities.

This can be achieved by making the accessible toilet 'unisex', and is the approach and terminology stipulated in the Building Code of Australia.¹⁷ Australian Health Facility Guidelines suggest toilet signage with braille tactile nominating 'Unisex Public WC' or 'Unisex Staff WC'.¹⁸

Rainbow Health Australia,a program supporting LGBTIQ+ health, notes that while these communities have only recently developed positive definitions of who they are, there is still debate about these issues within and outside LGBTIQ+ communities. Consensus may not be possible, but it is important for designers to be aware of the need to consult with intended user groups.¹⁹

'All gender' appears to be the least contested terminology as it is more general than uni-sex or gender-neutral,¹⁷ but some inclusion advocates prefer an entirely genderfree approach, where toilets are simply indicated by a toilet pictogram.

While gender neutral, all-gender or unisex toilets are well-intentioned to include previously excluded groups, the unintended consequence of this approach is that those labels can alienate others – namely, women (and some men) who value the privacy and gender separation of toilets, whether for safety, hygiene, cultural or religious reasons.²¹

Parents' rooms provide an illustration of the difficult balancing act of inclusion.

A small study in Australia concluded that parenting rooms in public places such as shopping centres were considered unsafe spaces for women because they are often poorly maintained and hidden away down long corridors, away from passive surveillance by others.

Some women also feel unsafe sharing spaces with men while breastfeeding.²² Conscious of, and reflecting this anxiety, men can feel uncomfortable entering parent rooms (despite the name change from mothers' room) in response.

One solution to this is to have a separate or secluded space within the parent room for breastfeeding only, and to make entries to parent rooms more visible.

Alternatively, change facilities or children's toilets can be provided in both male and female toilet facilities, or in a single occupant gender neutral space.



Gender Equity

Municipal Association of Victoria <u>Gender Equity in Design</u> <u>Guidelines</u>²³

Gender-Haas Institute (US) Creating Bathroom Access and a Gender Inclusive Society²⁴

DESIGN FOR FAITH AND CULTURE

Religion, cultural norms and indigeneity

The third type of inclusive design issues relate to social practices for faith and cultural groups, including migrants and indigenous communities. Cultural competency of staff is critical in making people feel comfortable, but this must be supported by spaces that enable cultural practices – large family waiting areas (or patient rooms), Muslim prayer rooms, multi-faith spaces, death and birth ritual spaces etc.

In Australia, the greater burden of disease for Aboriginal and Torres Strait Islanders compared to the non-Indigenous population underscores the need for specific policies that improve the health of Indigenous people through increasing cultural safety. Indigenous Australians don't feel safe in hospitals²⁵ and if an environment doesn't feel safe, it's not.²⁶

Hospital data shows that Indigenous Australians are more likely than non-Indigenous Australians to leave hospitals without completing treatment. Thirty two percent of Indigenous Australians who did not access health services when they needed to indicated this was due to cultural reasons, such as language problems, discrimination and cultural appropriateness.²⁷ Research of patient rooms for Indigenous Australians showed preferences for a two-bed patient room, a balcony rather than a window only, Indigenous art, and view of a park rather than an urban environment. Important factors in these preferences are cultural recognition, the desire for company of family members, and connection to life outdoors.²⁸

A public policy change in New South Wales in 2018 encouraged hospitals to provide for a "culturally appropriate space" and may also display Aboriginal artwork as one way of being more inclusive and welcoming.²⁹



Issues of faith cross over with cultural practices, and often relate to spaces for worship and ritual, and importantly, access for families. Faith-based healthcare facilities provide worship and reflection spaces as a matter of course, but publiclyfunded hospitals also often provide a chapel or multi-faith spaces for prayer and reflection.

Globally, Muslims represent substantial portions of society and encompass several ethnicities with diverse views regarding illness and healthcare. Islamic faith can influence decision-making, family dynamics, health practices, and the use of healthcare.³⁰ One research study identified that cultural competence for Muslim patients requires knowledge of three specific elements of faith: gender-concordant care, halal food and a neutral prayer space. Gender concordance was requested based on Islamic conceptions of modesty and privacy. Halal food was deemed to be health-promoting and therefore integral to the healing process, and a prayer space was preferred to ensure security and privacy during worship.³¹

In some instances, designing for faith may be specific (a chapel with stained glass windows), or more general (generous indoor or outdoor waiting areas for large families). And quite apart from providing spatial solutions, improving inclusive practices in healthcare will take time and education of staff. Other ethnic groups and nationalities also have specific needs that can be identified through consultation and local knowledge.

Cultural competency training has a tendency toward lists of cultural traits and practices, which can lead to stereotyping. A better alternative is to transform the culture of care so that cultural, religious and individual diversity is genuinely encouraged and accommodated.³²



Cultural Safety

Australia's National Research Organisation for Women's Safety <u>Culturally and Linguistically</u> <u>Diverse Cultural Safety ³³</u>

Indigeneity

Victorian Department of Health Aboriginal and Torres Strait Islander Cultural Safety ³⁴





- 1. Karratha Health Campus, Karratha, Australia Photography by Robert Frith/ Acorn Photo 2. Midland Hospital, Perth, Australia,
- Photography by Peter Bennetts

3. Australian Catholic University Multi-Faith Space, Melbourne Australia Photography by Trevor Mein

THE COST MYTH

Inclusive design is a cost efficiency, not a burden. And it assists many more people than just those it is designed for.

There are countless products and services we all benefit from that have been designed for disabled users, like electric toothbrushes, and pinch screen zoom on mobile phones for the vision impaired.⁹

Subtitles were created for people who are deaf but are used appreciatively by people in noisy or busy places like airports and hospital waiting areas. And ramps were designed for wheelchairs, but anyone pushing a pram uphill understands their value.

PwC estimate that most inclusive design innovations are likely to benefit up to four times the number of people initially targeted.³⁵

So, with quadrupling the audience in mind, an all-gender amenity that meets accessibility standards provides a comfortable experience for a wheelchair user, a stress-free public toilet option for a transgender person, and allows a dad to help his small daughter wash hands after a sticky ice-cream. That's value-added design.

In retail design, Coles supermarkets in Australia have introduced an autism spectrum-friendly low-sensory "Quiet Hour" in several locations. Reduced noise, lighting, and other in-store distractions are attracting many users beyond the initial target group of shoppers.³⁵ Similarly, calm spaces in emergency departments for autistic patients and mental health presentations aid not only the patients, but the staff, and other waiting patients and visitors.

Quite apart from the convenience of, and moral imperative for, inclusive facilities, design that excludes users is now a legal and financial liability. A landmark legal case in Australia has ruled in favour of a visionimpaired man who was discriminated against through the design of the Sunshine Coast University Hospital.

The judge ruled that the hospital, which only opened in 2017, must rectify a range of features including signage (braille and higher contrast lettering), flooring materials (lower glare from polished surfaces, tactile indicators) and wall colours (increase contrast between floor and wall planes) to allow independent access to all parts of the hospital. The cost of these changes is estimated to be around \$AU5 million.³⁶ But this case also illustrates the difficulties of accommodating all users. Strong colour contrast in this case is necessary for wayfinding for the blind, but in other circumstances is argued against for the benefit of neuro-diverse users.

Tactile indicators on floors for the vision- impaired will aid wayfinding also, but these are problematic for the many different types of mobile equipment required in a hospital setting.

All of which points to the importance of understanding your users, and engaging as many different perspectives as possible in the design process to minimise design risks and unintended consequences.



Karratha Health Campus, Karratha, Australia Photography by Robert Frith/Acorn Photo

A JOURNEY AND A DESTINATION

Harking back to the initial definition in this paper, inclusion "is an active process of change, as well as an outcome." It is an opportunity for designers to understand, to educate, and to work with users to deliver the best outcomes, and in the process, raise the level of both physical and social wellbeing of all users of a health facility – staff, patients and families.

Consultation through the early stage of design may take a number of forms: stakeholder surveys or interviews, co-design workshops or a design review – for example, a gender or social audit in the early stages of design, either with an expert consultant, user groups, or ideally, both.

Hassell is exploring inclusion through specific consultation groups (LGBTIQ+, cultural and language, disability and clinical users) on projects ranging from hospitals to rail stations, through surveys, regular meetings, site visits and design reviews between community users, designers and the client. As much as legislation and standards help to guide architects and provide consistency, they can't replace local knowledge and the experiences of real people in real places.

These groups encourage design to stretch beyond regulatory compliance to a proactive approach, resulting in additional design elements that afford dignity to sometimes marginalised groups.

Examples of suggestions from community design reviews in Hassell projects include the specification of full-length mirrors in disabled toilets to allow wheelchair users to see their legs (regulations stipulate only a half-length mirror), additional braille signage on train platforms for the vision impaired, and the development of flooring infill strips to smooth transitions for wheelchairs.

And it doesn't end when the ribbon is cut on a project. Ongoing discussion and adjustments are inevitable and necessary in response to changing user needs and profiles, as is always the case in a hospital development.

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Designing for everyone

PwC and the Center for Inclusive Design <u>The Benefit of Designing for</u> Everyone ³⁵

Centre for Architecture and the Built Environment (CABE) UK Principles of Inclusive Design ⁸

Victorian Health Building Authority <u>Universal Design Policy</u>³⁷

Designing for Dignity <u>Principles for Beyond</u> <u>Compliance Accessibility in</u> <u>Urban Regeneration</u>³⁸

CONCLUSION

Great design should be judged by whether it achieves an inclusive environment. It doesn't mean every individual's needs are met exactly, but by designing spaces with a choice of settings, including diverse user groups early in the design process, and applying consistently high design standards to meet the requirements of all users, design can embrace everyone on equal terms.



Busselton Hospital, Busselton, Australia Photography by Robert Frith/Acorn Photo

Section 8

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