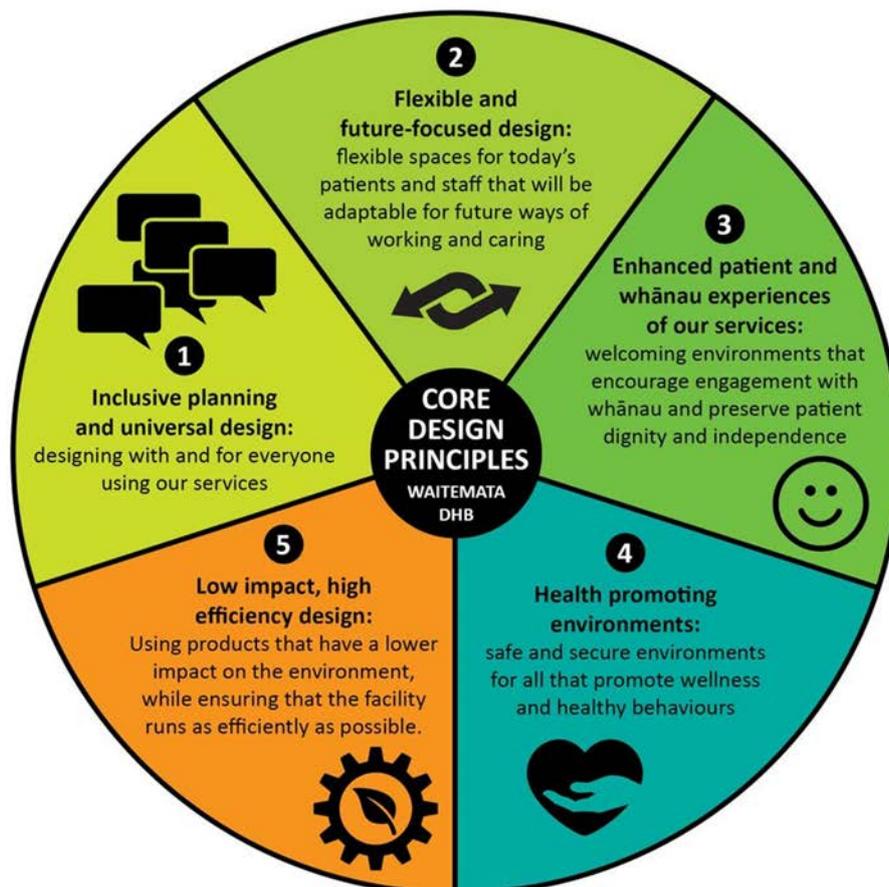




Waitemata
District Health Board

Best Care for Everyone

Waitemata 2025 Core Design Principles



Principles for applying evidence-based healthcare design, innovation and future focus into the Waitemata 2025 Programme

In order to ensure the DHB continues to provide health service facilities that enhance patient and whanau experiences and enable **the best care for everyone**, a core set of principles could be applied to all facilities design projects. This will also, as much as is possible, future-proof current and planned design and redesign projects to be adaptable for changes in the way care is provided.

An initial list of potential domains for consideration were developed based on the Guiding Principles developed for the NSH ward 8 redesign project, Evidence-based Healthcare Design paper (presented to ELT and the board in 2014), other background research being conducted into new models of care, and direct learnings from national/international programmes (such as the new Christchurch hospital, ADHB/AUT design lab, ASPECT tool, Queensland Health documents). A short consultation period was held. Input was provided and was incorporated.

The Waitemata Design Group then reduced the number of separate domains and have come up with the following four domains:

1. **Inclusive planning and universal design: designing with and for everyone using our services**
2. **Flexible and future-focused design: adaptability for future uses and new models of care while providing functional spaces for today's patients and staff; future models of care informed by evidence and inter/national best practice**
3. **Enhanced patient and whanau experiences of our services: including welcoming environments**
4. **Health promoting environments: including safe and secure (real and virtual) environments for all, and promoting independence in patients caring for themselves**
5. **Low impact and high efficiency design: ensuring that our facilities have the lowest possible environmental impact and the highest operational efficiency**

As with everything else we do, facilities design is underpinned by Waitemata DHB's core values: everyone matters; with compassion; connected; better, best, brilliant.

Core Principles in more detail!

1. **Inclusive planning and universal design: designing with and for everyone using our services**

It is important that facilities are deliberately and thoughtfully co-designed with patients, whanau, and staff. Only those with daily experience of the facilities can truly understand the issues created or addressed by the physical design and environment of that facility. There may be other important groups in certain circumstances, such as students. The co-design approach means that you need to involve a representative from key groups within your planning team. You may also need to find other ways of gaining other patients, whanau and staff input. This could include listening events, contribution boards (physical or online), workshops, participation on user groups/governing committees, consultation with patient/community networks, mock-ups of spaces, trials/pilots.

A universal design approach broadens consideration beyond disability and recognises other life scenarios such as pregnancy, childhood, injury, and old age. In the built environment this means developing places,

products and services that are accessible to, and usable by, as many people as is reasonably possible, without the need for special adaptation or specialised design.

2. Flexible and future-focused design: adaptability for future uses and new models of care while providing functional spaces for today's patients and staff; future models of care informed by evidence and inter/national best practice

It is vitally important that spaces designed and built today are flexible enough to cope with other potential uses that may be required in the future. This recognizes changes in demand (patient demographics in hospitals changing to be older, more unwell, more frail) and changes in the way we might deliver health care (more continuous monitoring, new equipment, future technologies, new roles using new processes in different places).

Current trends include a move away from hospital-based care to early assisted discharge, ambulatory care from satellite community clinics, and home-based care. These predict a different hospital of the future that is dedicated to high acuity, intensive care beds, serving an inpatient population that is on average older and even more vulnerable to hospital-acquired infection and other unintended injury. Acuity-adaptable rooms allow for changes in future patient groups that may allow more highly monitored/high acuity patients to be housed in an area where that is currently not required, or even a complete change to an ambulatory service. It can also mean the ability for individual patients to go from acute care to critical care and vice versa while remaining in the same place, ie. the patient stays in the same room while the level of care (monitoring, nursing etc) changes around them. A reduction in transfers may reduce errors and adverse events that occur at the point of transfer, time spent waiting for transfers, and operational efficiencies in functions like cleaning.

The principle here focuses on being prepared for change by maximizing flexibility and adaptability. Teams need to be future-focused and informed by evidence – national and international. There may be some balance required here in terms of smart spending where adaptability is more expensive in the short term, although this is not always the case (i.e. modular materials can be cheaper). Also in terms of ensuring layouts still make today's workflow easier for staff, for example having consistency across layout of wards for staff moving between them.

3. Enhanced patient and whanau experiences of our services: including welcoming environments

Enhancing the patient and whanau experience of care is a core priority for Waitemata DHB and this needs to be reflected in the physical environment of our services. In particular, this means providing a welcoming environment in all our services.

There are many ways that this can be demonstrated including providing appropriate and pleasant spaces for families and visitors in patient rooms, in clinics and on wards, and furniture/facilities that encourage whanau to stay and care for their family member. Considering the patient room as a place for patient/whanau engagement and learning, as well as for clinical interactions and care of the patient, will allow us to think differently about how we design and use the space. Ensuring personal dignity at all times.

Aspects that have been shown to improve patient satisfaction in hospitals include single bed rooms, flexible patient room layouts, universal rooms to reduce the need for transfers, positive visual and audio distractions, a no-institutional look, noise reduction measures, intuitive and easy to use furniture/fixtures/environmental controls. Personal space, accessibility and welcoming environments were also seen as important to patients in listening events held at Waitemata DHB in 2014.

4. Health promoting environments: including safe and secure (real and virtual) environments for all, and promoting independence in patients caring for themselves

This principle covers a variety of aspects that are often taken for granted but that need to be carefully thought through in all designs for all staff, patients, and visitors.

Some of these are:

- Access to natural light, views of nature out of windows in line of sight, and nature-themed artwork with unambiguous clear and culturally appropriate content in patients line of sight have been demonstrated to reduce patient stress and anxiety, and to enhance staff satisfaction with the work environment. In hospitals lighting can reduce depression in patients, decrease length of stay, improve sleep, lessen agitation in people with dementia, ease pain and improve adjustment to night shift work in staff. The important considerations are windows for natural light, adequate light for visual tasks (particularly for staff and for elderly patients/with cognitive issues), variation (i.e. reduced at night) to maintain circadian rhythms, and allowing some patient-controlled light.
- Supporting patients to move and transfer, and providing the facilities to support staff helping patients move, including easy access and room to provide care. Some hospitals are working towards a 'no lift' policy for staff by providing the equipment necessary to help transfer patients
- Design to ensure personal privacy may include providing toilets within patient rooms (rather than having to use public areas to access bathrooms), and the layout of the room allowing patients to see when people are about to enter. This also should include the security and confidentiality of personal health information on paper, on screens and in electronic systems.
- Ensuring personal safety at all times
- Preventing the spread of infection
- Cultural safety
- Supporting wellness behaviours, for example, no smoking
- Promoting good sleep as essential for the restoration of health and wellbeing, including maintaining natural circadian rhythms (through lighting, noise policies, processes)
- Promoting healthy eating behaviours through facilities such as beverage bays and whanau/day rooms
- Consider line of sight and visibility so that patients feel connected to staff (not isolated) and so that staff have visibility of patients who may require assistance
- Materials to reduce noise to reduce stress levels and improve sleep
- Promoting independence by supporting patients to manage their own care, enabling active participation and ownership of their health, promoting independence through the physical environment such as personal control and choice over comfort (light, temperature, posture, noise, airflow) and the ability to engage/disengage with others, and ensuring dignity at all times.
- The promotion of safe activity and exercise (as appropriate) is another important consideration - examples internationally include internal 'walking tracks' with seats to rest, corridors with views, rehabilitation equipment and spaces on the wards, and attractive external walking areas.
- Privacy of the person and health information in whatever form it's shown.
- Pro-privacy work spaces
- Pro-privacy patient spaces

5. Low impact and high efficiency design: ensuring that our facilities have the lowest possible environmental impact and the highest operational efficiency

The materials used and design principles applied to new buildings can greatly impact on the natural environment, both upstream, from the raw materials used and the manufacturing process, as well as through their operation. Ensuring that we are utilising, wherever possible, low impact materials and products can

greatly reduce this potential impact. Equally, the design principles used can also greatly determine the operational efficiency of a facility, from energy requirements to water usage, all of which incur expenditure, Ensuring that buildings are designed to run as operationally efficiently as possible can greatly reduce these operational costs.

Aspects included within this core principle include, but are not limited to:

- Embodied energy of construction materials
- Environmental Choice New Zealand certification for internal fittings (e.g. paints and furniture)
- Indoor air quality aspects of internal materials (e.g. eliminating volatile organic compounds)
- High efficiency lighting and fittings (e.g. use of LED lighting)
- Whole-of-life (WoL) cost comparisons to ensure we account for the total cost of ownership, not just capital cost
- New Zealand Green Building Council (NZGBC) 'Green Star' rating tool design principles, regardless of intent to gain certification

How might these principles be used?

The intention is that a core set of principles will be applied through-out the design process for all new building and re-design projects across Waitemata DHB. This will mean the consideration of the principles in the work up of all design briefs by the services and facilities, inclusion of the principles in design briefs given to architects/designers, requirements to include consideration of/responses to the principles in design documents from contracted designers/architects and others, and inclusion of consideration of the principles in all business cases including justification for how these principles have been addressed or not addressed as appropriate. Links to more detailed information on the topics discussed here and how to apply them will also be made available via this document.

Checklists:

These checklists may be inserted into Waitemata DHB documents in order to demonstrate how design projects have addressed the domains.

Checklist A (short)

Domain	Description	How project aligns
Inclusive planning & universal design	Designing for everyone using our services	<i>To be completed by each project...</i>
Flexible & future-focused design	Flexibility for future uses of the facility, including consideration of future models of care such as more community/home-based care	
Enhanced patient & whanau experience	Providing a welcoming environment that encourages engagement with whanau and preserves patient dignity and independence	
Health-promoting environments for patients, whanau and staff	Environments that promote wellness and healthy behaviours, such as safe activity, sleep, good nutrition, the use of natural light, nature views or artwork	
	Ensuring personal and cultural safety, including supporting patients to move and transfer, preventing the spread of infection	
Low impact & high efficiency design	Impact on the environment in materials and operational requirements considered alongside operational efficiency	
DHB Values	Everyone matters With compassion Connected Better, best brilliant	

Checklist B (specific questions)

Domain	Specific questions	Justification
Inclusive planning & universal design	How does the design address needs of all patients using our services	
	Describe how patients, communities and/or staff been involved in the design process	
Flexible & future-focused design	Does the overall design allow flexibility for future uses of the facility	
	How does the design allow adaptability for changes in models of care (eg. acuity-adaptable)	

	rooms, modularity, changes in technology uses)	
	Was background research into potential new models of care conducted	
Enhanced patient & whanau experience	How does the design provide a welcoming environment	
	Does the design incorporate appropriate spaces for families and visitors that encourage their engagement	
	How does the design ensure patient dignity and privacy is maintained	
Health-promoting environments for patients, whanau and staff	Has the design attempted to include natural light and nature views	
	How will patients be supported to move and transfer	
	Does the design consider personal and cultural safety for patients, visitors and staff	
	What design features assist in preventing the spread of infection	
	How will this design promote wellness behaviours including good sleep, safe activity and exercise/rehabilitation, nutrition	
	Promoting independence	
	Protecting privacy including of health information	
Low impact & high efficiency design	Have low impact materials for construction and internal fitout been considered in the design	
	How does the design ensure that the facility will run as operationally efficiently as possible	
	Has whole-of-life (WoL) cost comparisons been looked at to account for the total cost of ownership	
DHB Values	How does this project align with the DHB's values of Everyone matters, With compassion, Connected, Better, best brilliant	

Notes:

Waitemata DHB Design Group

These initial 'strawman' principles were developed by the Waitemata Design Group consisting of representation from consumers, Innovation, Patient experience, Community engagement, Disability support, Facilities, Moving & Handling, Pacific health and Asian health.

Leapfrog Programme

This is a programme of work in areas that have been identified as strategically important to achieving Waitemata DHB's purpose and priorities. Best Facilities Design for Waitemata DHB is one of the projects in the Leapfrog Programme. This programme is led by Dr Robyn Whittaker: robyn.whittaker@waitematadhb.govt.nz