

A New Standard of Care

What is the future of design for aged care environments?







Introduction

Whether due to improvements in healthcare, nutrition and education, or a rising quality of life, more Australians are living longer. In 2016, 15% of Australians – around 3.7 million people – were aged 65 and over.¹ This segment of the population is projected to grow to 22% (8.7 million people) by 2056.² This trend creates both pressures and opportunities for Australia's aged care sector.

There is an evolving reliance on the built environment to support an aged care system to provide a high standard of care and dignity for all Australians as they age while facing new economic and social challenges. Most recently, the COVID-19 pandemic has highlighted the limitations of infection control measures in traditional aged care design. In addition, there is growing awareness of the complex needs of residents living with co-morbidities and dementia, and the logistical challenges of providing high-level care to people who require more assistance with daily activities.

At the same time, the cost of aged care 'per bed' is on the rise, driven by high upfront costs in the design and construction of aged care facilities, and an increasingly complex regulatory landscape. High operational costs for staffing and utilities further highlight the need for aged care design to evolve to ensure service improvement and business sustainability.

In response to these challenges, design and construction professionals have an opportunity to incorporate innovative configurations and operator models to create environments that enable high levels of care while providing an enriching living space for residents. Both functionality and aesthetics are integral aspects of good environmental design to achieve a warm, enriching and residential feel that helps residents feel at home and reduces physical and mental health challenges in the longer term.

In this whitepaper, we look at the changing landscape of aged care design, some emerging design trends in the sector, and take a focused look at design solutions that are essential for the modern aged care bathroom.

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The Changing Landscape of Aged Care

In recent years, there has been a shift away from institutional models of care to person-centred care set in a home environment. Residential aged care facilities cater for residents with high-care needs, while retirement living or independent living apartments are the conventional low-care option. A third category, “ageing in place”, has grown in popularity in recent years with 78% to 81% of Australians aged 55 years or older (depending on their age cohort) expressing a preference to stay in their own home as they age, according to recent studies.³

In this landscape, the design intent of aged care projects has changed due to cross-pollination between multi-residential accommodation, retirement living and aged care. Whereas in the past, the decision to enter aged care was one made by the children of the family, nowadays we are seeing an increased demand for luxury

and affordable accommodation driven by a generation of Australians who plan to enter aged care. The decision to move into a more supportive and better designed housing is a type of future proofing that ideally will remove the need to move into high level care.

The challenge for architects and designers is to make residential aged care facilities more home-like while still providing high levels of care to residents, especially those with co-morbidities and dementia. In 2019, over half of people in residential aged care suffered from dementia. Over the next two decades, the number of people with Alzheimer’s disease in residential aged care facilities is expected to increase to 72%, requiring dementia-friendly design to be an important component of new builds.⁴

Where Are We Headed?

FACTORS DRIVING CHANGE

THE ROYAL COMMISSION AND THE 'SMALL HOUSEHOLD' MODEL

In early 2021, The Royal Commission into Aged Care Quality and Safety's final report into aged care highlighted challenges within the sector. Among the issues raised was poor governance across the industry, and the prominence of 'reactive' or 'task-based' models of care that focused on standardised processes rather than planning around the needs of the individual.

The Royal Commission also heard evidence that 57.6% of all Australian residents in aged care live in aged care homes with inadequate staff.⁵ A lack of staff poses a serious risk in aged care, with carers having no or limited time to help residents with daily tasks, such as going to the toilet, eating meals, or attending to their clinical care,⁶ and residents with dementia not receiving adequate attention.⁷

To address some of these issues, the Royal Commission recommended the 'small household' model of care in its final report. 'Small household' environments consist of around 8 to 12 residents living in a home-like environment with a separate kitchen, intimate dining, and small-scale living spaces, enabling person-centred care. Studies indicate that smaller homes increase the quality of life of residents, and result in fewer hospital visits for residents,⁸ often at similar or lower cost than conventional models of care.

THE IMPACT OF COVID-19

The COVID-19 pandemic has changed the way we look at the built environment forever, even more so in aged care facilities. In the 12 months since April 2020, confirmed cases in residential aged care made up 75% of Australian deaths from COVID-19, despite only making up 7% of the total number of cases.⁹

The pandemic has highlighted that the design of aged care settings is often conducive to spreading disease. In such settings, people are living close together with a lot of shared spaces and amenities. The soft furnishings used to create a home-like atmosphere are often more difficult to clean and thus can harbor germs and bacteria. There are operational issues as well, with staff working across multiple facilities and caring for many residents, and often lacking the right protective equipment and training.

There is an opportunity for designers and architects to incorporate infection control measures into new builds

and renovations. This may include a focus on easy-to-clean surfaces, more outdoor spaces, improved ventilation and reduced shared touchpoints using sensor-operated technologies. Handwashing facilities can also be strategically placed between areas to reduce transmission within the building.

The 'small household' model lends itself to infection control as it is easier to minimise potential exposure to a smaller group of residents and implement effective design strategies across a smaller building footprint. Designers may also want to consider incorporating smart tapware and bathroom technology to enable facility managers to monitor usage and optimise cleaning schedules (e.g. allocate more cleaning resources after high usage spikes).

THE ROLE OF NEW TECHNOLOGY

The role of technology is increasing in the aged care sector to improve operational efficiency and standards of care. New solutions are being introduced that let residents be themselves, while ensuring their safety (especially if they are suffering from dementia or another cognitive impairment). For example, real-time locator services allow carers to monitor residents without the need to physically contain residents within a small space. Note, however, that the benefits of surveillance technology must be balanced against the resident's right to privacy and consent.¹⁰

Smart bathroom fixtures also have useful applications in aged residences. For example, real-time fixture data can enable nurses to monitor if a resident has used the toilet in the morning or is showering regularly. Smart toilets can be programmed to flush automatically. Residents with dementia may be agitated or startled by toilets flushing automatically, so it would be ideal for this function to activate after the resident has left the room.

Other technologies are designed to assist staff deliver optimal levels of care, more efficiently. Such solutions include nurse call systems that ensure residents have access to quick and timely care as required. Alerts can be sent directly to nurses in real-time, reducing the risk of accidents while providing residents privacy and independence. Digital information systems for rostering, clinical management and medication are also being utilised to reduce error and harm to residents.

Good architecture and interior design that successfully balances resident wellbeing, inclusion and happiness while enabling aged care providers to deliver care effectively and efficiently, will achieve better residential outcomes in the long-term.

A FOCUS ON SUSTAINABILITY

The global concerns over climate change are touching every industry – aged care is no different. Stakeholders are demanding more sustainable, energy-efficient facilities as natural resources become scarcer. This is being supported by eco-conscious clients who want to reduce their environmental footprint even into old age. There is also a cost imperative as energy-efficient designs might cost more upfront, but can result in operational savings due to reduced energy and water consumption over the building's lifespan.

In line with current sustainable design trends, aged care designs are incorporating more sustainable, renewable materials that are non-toxic and contribute to a healthier indoor environment. Building envelopes are being improved with better thermal performance, and an emphasis on natural lighting and ventilation, all of which can reduce the dependence on artificial lighting, heating and cooling, as well as creating more enjoyable places to live in line with biophilic principles. Water and energy conservation is being addressed through specification of efficient fixtures as well as smart building systems that allow facility managers to monitor and optimise usage.

RISING CONSTRUCTION COSTS

Aged care providers do not receive enough government funding, so small standalone facilities face difficulties generating enough profit to expand their offering. At the same time, building an aged care facility is only getting more expensive due to more stringent building codes and higher upfront costs for new technology and sustainable design features. Without factoring land cost, it can cost a provider between \$250,000 to \$350,000 per bed to build a facility that meets all regulatory and client requirements.

New construction techniques are being implemented to reduce upfront costs without sacrificing quality or features. Prefabrication and modular building methods have emerged to make building faster and more cost-effective. For example, fully-featured, prefabricated bathroom pods can be manufactured offsite in parallel

to, or ahead of, onsite construction. The pods simply need to be transported and installed onsite, significantly reducing installation time and cost. This method of construction is particularly useful for remote locations where transporting materials, labour and equipment would be difficult.

CREATING A PLACE THAT FEELS LIKE HOME

There is a shift away from the perception of aged care facilities as isolated 'gated enclaves' towards embedding residential aged care 'households' within an active community. The latter ensures residents remain part of a broader social and physical fabric in which they can build support networks and connect with local culture.

Rather than large, imposing structures, residential aged care households could be smaller buildings that are indistinguishable from neighbouring homes. To smooth the transition from home to person-centered care facilities, aged care designs should aim to create a home-like aesthetic with less-institutional design features, such as smaller communal rooms that resemble a home; access to external gardens; ample storage to allow medical equipment to be hidden from view; increased natural light and ventilation; and domestic-looking hallways, entryways and corridors.

Designers can make use of furniture fabrics, styles and colours to create warm, home-like environments that promote comfort and wellbeing. Ensuites should include fittings and fixtures that make the space resemble a traditional bathroom found in a home, rather than a hospital. There are several product ranges available that offer supportive bathroom products and fixtures that are both accessible for older residents and attractive within a home aesthetic.

Aesthetics also fulfill a functional purpose by helping improve environmental visual literacy, improve resident engagement, support orientation and wayfinding, and assist with the safe operation of daily activities. Visual design elements to support navigation and a focus on creating a calming interior environment is especially important for residents with dementia.

Redesigning aged care for the future

The impact of an ageing population will undoubtedly pose huge social, economic and environmental challenges for Australian society. It is critical that the built environment is designed to assist aged care providers in addressing these emerging challenges within a sustainable framework of development.

It is clear that the design and aesthetic of modern aged care environments must incorporate a range of different considerations to allow people to live an independent and fulfilling life as they age. This holistic approach should incorporate the qualitative aspects of getting older beyond merely functional aspects such as fall

prevention or hygiene. Aged care workers must also be considered, with environments that enable staff to provide care safely, efficiently and with a sense that their work is valued.

Designers and architects are instrumental in implementing new models of care that support people with complex needs. Good architecture and interior design that successfully balances resident wellbeing, inclusion and happiness while enabling aged care providers to deliver care effectively, will achieve better residential outcomes in the long-term.



Focus On: The Modern Aged Care Bathroom

BY CAROMA LIVEWELL

Caroma LiveWell has worked closely with health and aged-care specialists to deliver innovative bathroom solutions that surpass current industry standards. LiveWell includes a versatile range of products that enable you to create a unique space that provides residents with dignity and independence.

The **Opal Collection** is a comprehensive and versatile range that is specifically designed to enhance independence in the bathroom without having to compromise on style. Available in Chrome, Matte Black and Brushed Nickel, this collection offers a selection of toilets, basins, tapware, shower and support rails that have been meticulously colour matched to provide a complete coordinated design solution for retirement and independent living through to high-care accommodation and AS1428.1 accessible applications. Discreet design features such as raised height toilet pans and integrated shelf space on basins are just some of the simple additions offered to reduce challenges for the elderly while leaving residents relaxed and comfortable in their modern and home-like bathroom.

Caroma Cleanflush® technology is Caroma's most effective and hygienic toilet flushing system incorporated into industry-leading toilet suites. The patented rimless design of the modern Opal Cleanflush® collection brings style, ease of cleaning and functionality to the bathroom.

Additional features such as integrated armrests with optional nurse call function and a range of single flap and high contrast seats are designed to improve independence and wellbeing for users and carers. Designed for wet environments, the fully-integrated nurse call button is located on the side of the armrest to minimise unintentional triggers and has a LED response light. The stainless steel armrests have been load tested to 160kg on each arm with an inbuilt safety locking system. The armrests do not require a structural wall for installation and can be removed if necessary.

Caravelle Classic is a traditionally-designed cross or lever three-piece tapware range to enhance the look of any bathroom. It includes a unique combination of features such as familiar styling, easy-turn ceramic disc operation and extra-large indicators for those with arthritis, dementia or poor eyesight.

To increase hygiene and prevent the spread of infection, **GermGard®** protection is available on selected Caroma products. GermGard® antimicrobial formula is integrated into the specially-designed nitrile rubber seals on Caroma Care Support Grab Rails, making cleaning even the concealed flange easier and preventing infection while providing support to people when they need it. GermGard® is also integrated into the glaze of Caroma Vogue Toilet Seat that is used on Urbane II toilets.

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