





RETHINKING OUR INFRASTRUCTURE FOR AN AGEING POPULATION

A REPORT BY KALI MERCIER

TABLE OF CONTENTS

Executive summary 01

Recommendations 05

Chapter 1: Aotearoa New Zealand is ageing rapidly 11

Chapter 2: Good infrastructure is a public health investment that benefits everyone 29

Chapter 3: Housing: One of the most important factors for healthy ageing 35

Chapter 4: Aged care facilities: Increasing capacity and affordability 45



Chapter 5: Health: An ageing population will put added demands on health facilities 53

Chapter 6: Age-friendly cities for connection, accessibility, and preventative health 61

Chapter 7: Discussion 77

Conclusion 87

References 89





ABOUT MAHI A RONGO / THE HELEN CLARK FOUNDATION ABOUT MAHI A RONGO / THE HELEN CLARK FOUNDATION



The Right Honourable Helen ClarkPhoto credit The Elders/Jeff Moore.

Our Philosophy

New problems confront our society and our environment, both in Aotearoa New Zealand and internationally. Unacceptable levels of inequality persist. Women's interests remain underrepresented. Through new technology we are more connected than ever, yet loneliness is increasing, and civic engagement is declining. Environmental neglect continues despite greater awareness. We aim to address these issues in a manner consistent with the values of former New Zealand Prime Minister Helen Clark ONZ, who serves as our patron.

Our Purpose

The Foundation publishes research that aims to contribute to a more just, sustainable, and peaceful society.

Our goal is to gather, interpret, and communicate evidence in order to both diagnose the

problems we face and propose new solutions to tackle them. We welcome your support.

Please see our website <u>helenclark.foundation</u> for more information about getting involved.



ABOUT WSP ABOUT WSP ABOUT WSP ABOUT WSP





About WSP

WSP is one of the world's leading professional services firms, uniting its engineering, advisory and science-based expertise to shape communities to advance humanity.

With roots in New Zealand's earliest infrastructure projects more than 150 years ago, WSP today has offices and labs in 24 towns and cities across Aotearoa New Zealand – from Whangārei to Invercargill – and employs over 2000 professionals, known as Visioneers.

Together they pioneer solutions and deliver innovative projects across the transport, building, environment, water, energy and advisory sectors.



ACKNOWLEDGEMENTS ACKNOWLEDGEMENTS ACKNOWLEDGEMENTS ACKNOWLEDGEMENTS ACKNOWLEDGEMENTS



To all those who helped with this report in so many different ways, ngā mihi ki a koutou katoa. I'd particularly like to thank Isaac Baxter, who assisted with a range of tasks and research. I hope you enjoy seeing your words and thoughts reflected here.

As always, a huge thank you and grateful acknowledgements to our partners at WSP New Zealand for their help, support and expertise. In particular, thank you to Nadine France, Nic Scrivin, Campbell Gardiner, Jared Thomas, Rachel Lawson, Bill Frith, David Symons, Vivienne Ivory, Chris Davies, Reuben Peterson, Tony Jemmett, Alan Whitely, and the talented WSP Creative Solutions Team.

I'd also like to thank the Helen Clark Foundation staff and board for their encouragement, support and feedback, particularly Murray Bruges, Sarah Bell, and our patron, Rt Hon Helen Clark.

Kali MercierWSP Fellow, and Deputy Director of the Helen Clark Foundation

19 October 2025

I am extremely grateful to the following people, who generously shared their wealth of knowledge on this topic. Thank you to Professor Paul Spoonley, Graham Campbell, Rebecca McLean, Timothy Welch, Nick Brunsdon, Hon Tracey Martin, Christina Robertson, Ingrid Leary, Harry Fenton, George Minton, Miriam Mathews, Rosie Anderson, Tim Garlick, and Angela Curl.

We rely greatly on our partners at AUT for the support that allows us to continue this important work - ngā mihi nui.

EXECUTIVE SUMMARY

The country's population is ageing rapidly. Today, around 17 per cent of the population is over 65; by 2078, up to one third of the population may be 65 or older.



Aotearoa New Zealand's increasing life expectancy is a positive story. People are living longer, healthier lives, with older New Zealanders continuing to work, volunteer, provide family support and contribute actively to their communities. Compared with peers in other OECD countries, New Zealanders aged 65 and over generally enjoy high levels of wellbeing, with strong social support networks, high home ownership rates, and low poverty rates (The Treasury, 2022). Yet, alongside these gains, demographic change poses urgent challenges for infrastructure, health systems, housing,

and social services. Planning for an ageing society is not only a fiscal necessity but also an opportunity to recognise the contributions of older people and to invest in the conditions that will allow them to remain active, connected, and well.

The country's population is ageing rapidly. The number of people aged 65+ stood at around 870,000 in 2024 and is projected to rise to as many as 1.6 million by 2051, and up to 2.5 million by 2078 (Stats NZ, 2024). Today, around 17 per cent of the population is over 65; by 2078, up to onethird of the population may be 65 or over. This change has been driven both by lower birth rates, and longer lives. It has been compounded by internal migration patterns, with younger people concentrated in major cities while many older people move to smaller regional centres such as Tauranga, Nelson, and Thames (Brabyn & Hanson, 2024).

Over time, demographic shifts will be uneven: some regions will see a doubling of older populations in absolute terms.

while others – such as the West Coast, Tasman, Nelson, and Marlborough – will experience 'hyper-ageing', with over 30 per cent of residents expected to be aged 65+ by 2048. For the country as a whole, such demographic change will reshape fiscal priorities, as a smaller working-age population supports proportionally more older people, putting significant pressure on superannuation, healthcare, and infrastructure budgets. For the regions that can expect to see shrinking and ageing populations, there will be challenges ahead to provide increasing services from a dwindling rates base.

Infrastructure is central to quality of life in older age. Housing, healthcare, aged care, transport, social infrastructure (such as parks and libraries), and urban design all play interconnected roles in supporting ageing well. Housing is a critical issue: New

Zealand already faces a shortage of nearly half a million homes by 2043. and older people will be less likely to own homes in the future. Home ownership among over-65s has fallen from 82 per cent in 2001 and is projected to fall to around 50 per cent by 2040 (Saville-Smith et al., n.d.). This raises the risk of housing insecurity and poverty in later life, particularly for renters. At the same time, much existing housing is unsuitable whether too large, inaccessible, or poorly located relative to services. Councils and central government need to ensure zoning, incentives, and investment in both public and private housing enable the development of accessible, affordable homes close to transport and amenities, and in a range of sizes to suit different needs.

Aged care is another major pressure point. Demand is rising steeply, with a projected shortfall of 12,000 aged care beds by 2032 (Moore et al., 2024). Capacity is unevenly distributed: regions such as Northland have only 149 beds per 1,000 people aged 65+, compared with 272 in Canterbury. Funding arrangements for aged care are inadequate and lack transparency, leaving many facilities unable to maintain or expand capacity.

Policy reform and targeted investment could help address these inequities. Australia's capital assistance fund is one promising model for effective reform. Alongside facility-based care, stronger investment in home and community support services would allow more people to 'age in place', delaying or avoiding costly residential care and, in turn, reducing demand on over-stretched hospitals.

Health infrastructure faces similar pressures. Hospital capacity is already under strain, with investment at historic lows over the past decade, despite rising demand. For example, Queenstown Lakes District Hospital was built for 4,500 residents but now serves 80,000, with no clear plan for future growth. Ageing populations drive disproportionate health needs: per-person healthcare spending for someone aged 85+ is 16 times higher than for a 40 year old. Meeting these needs will require investment in physical capacity and workforce,

as well as innovative approaches to healthcare delivery, including greater use of digital health, preventative care, and early interventions. However, without proactive, needs-based planning, the gap between demand and supply will widen, with serious consequences for equity and wellbeing.

Transport, urban design, and social infrastructure also play pivotal roles in enabling independence and social connection. New Zealand's reliance on private cars creates risks of isolation once older people stop driving. Public transport is often inaccessible or unavailable in smaller centres. Investment is needed in community shuttles, safer road infrastructure to extend driving years, and better walking and cycling environments. Age-friendly city initiatives, which adapt urban spaces, parks, libraries, and infrastructure such as footpaths and road crossings to the needs of older residents, benefit all generations and reduce downstream healthcare and aged care costs. Designing communities to be walkable, connected, and socially supportive is one of the most cost-effective ways to promote active ageing and reduce long-term fiscal pressures.

Across these domains, a central theme emerges: Aotearoa New Zealand lacks a coherent, long-term population and infrastructure plan that accounts for ageing. Current migration policy is reactive, population projections that consider ageing are not consistently used in spatial and infrastructure investment planning, and coordination between central and local government is weak. The result is piecemeal responses rather than system-wide solutions. As the Treasury has warned, superannuation and health costs will escalate steeply over the upcoming decades, while the tax base shrinks. The best response is to treat ageing as a system challenge, requiring joined-up action across agencies and all levels of government. Targeted investment in accessible housing, care services, health infrastructure, transport, and urban design can both reduce longterm costs and ensure older New Zealanders continue to live happy, healthy, and connected lives.



The ageing of New Zealand's population should not be seen primarily as a crisis, but as a call to act. The majority of older people are thriving, but around one-third experience vulnerabilities and 13 per cent face significant disadvantage. Infrastructure planning must aim not only to expand capacity but also to ensure equitable access, enabling all older people to age with dignity, independence, and connection. With strategic investment and integrated planning, population ageing can be transformed into an opportunity: to build communities that are healthier, more inclusive, and better prepared for the future. Done well, this will not only sustain economic resilience but also make New Zealand one of the best places in the world to grow old.



RECOMMENDATIONS RECOMMENDATIONS RECOMMENDATIONS RECOMMENDATIONS RECOMMENDATIONS







What benefits older people ultimately benefits all New Zealanders. Investing in preventative healthcare, housing, aged care facilities, accessible housing, and age-friendly communities will enhance wellbeing across generations, while reducing long-term fiscal pressure.

01

Given that investment planning to support Aotearoa New Zealand's ageing population is currently piecemeal and lacking in strategic direction, the Government should:

- Seek multi-party agreement, to the extent possible, on a strategic long-term vision for the country's infrastructure needs as they relate to the population becoming older.
- Establish a national crossgovernment leadership body on ageing, mandated to produce a long-term, evidence-based strategy and to supervise its implementation. The group's role would be to align demographic data with service and infrastructure planning and investment, producing a shared roadmap that successive governments can follow.
- Invest in improving data availability and accuracy for population projections, especially at the regional and city levels.

- Establish a national population plan, and require this to include a clear focus on the impacts of an ageing population at the national, regional, and city levels.
- Consider making budget lines across agencies that support the infrastructure (and other) needs of older populations transparent and, ideally, transferable. Costs in one part of the system that lead to significant savings in another should be acknowledged and accounted for, to build political licence for investments that save costs for the system as a whole.
- Address poverty and multiple disadvantage in old age, for example by assessing whether New Zealand Super payments are sufficient, given lower home ownership rates, increasing living costs, and the loss of community housing that previously supported people who needed it.



02

At the regional and local government level:

- Require spatial plans and infrastructure plans to incorporate data on ageing and how this will impact local needs and investment priorities. Plan strategically and in a joined-up way for ageing populations, investing proactively to anticipate future need.
- The Government should enable a greater level of resource transfer to address chronic underinvestment in infrastructure, and to ensure appropriate and adequate infrastructure is affordable for the age demographic in each area. Potential solutions include charging rates on properties owned by central government and/or removing GST from rates. If not, expect rates to continue to rise sharply, with the burden felt most by those with the least ability to pay (older people on fixed incomes, for example).

RECOMMENDATION

03

Given that Aotearoa New Zealand faces a shortage of nearly half a million homes by 2043:

- Central and local government should recognise the human right to decent housing by proactively planning and investing to ensure a sufficient supply of public and community housing suitable for older people. Housing options should be accessible, affordable, and informed by local and regional population projections.
- Local authorities should use planning and zoning rules, and investigate other incentives, to stimulate interest in building more accessible private housing stock for both rental and sale, in a range of formats and sizes.
- The Government should design and implement incentives to increase the uptake of accessibility modifications within the private rental sector to support older renters to 'age in place'.
- The Government should provide stronger pathways to home ownership, especially for Māori, women, and Pacific peoples.

04

In the context of a projected shortfall of 12,000 aged care beds by 2032, and extremely uneven capacity across the country that is already leading to long waitlists for many, the Government should:

- Urgently address affordability and availability issues in the aged care sector, particularly in the less wellserved regions. Focus on ensuring equitable access to standard residential aged care beds for those with low financial means.
- Introduce targeted infrastructure funding to address capacity shortages, especially in rural, regional, or low-income areas, as has been done recently in Australia.
- Introduce evidence-based and transparent funding models for aged care, to ensure existing providers can both adequately maintain services and increase capacity.
- Adequately fund home care support services and other home supports (such as home maintenance, lawn mowing, and safety equipment) to allow people to stay at home longer and to reduce demand for aged care accommodation.

RECOMMENDATION

05

Given existing strain on the health system will be significantly exacerbated as the population ages, the health burden increases, and the workforce shrinks proportionally, the Government should:

- Undertake needs assessments for health infrastructure such as hospitals based on projected population figures at country, regional, and local levels. Proactively and strategically plan investment accordingly, ensuring an equity focus – particularly in rural and underserved areas.
- To reduce future strain on health infrastructure as much as possible, expand telehealth and in-home services for older people (which are extremely cost-effective), enhance preventative care, and invest in public health to reduce health disparities.

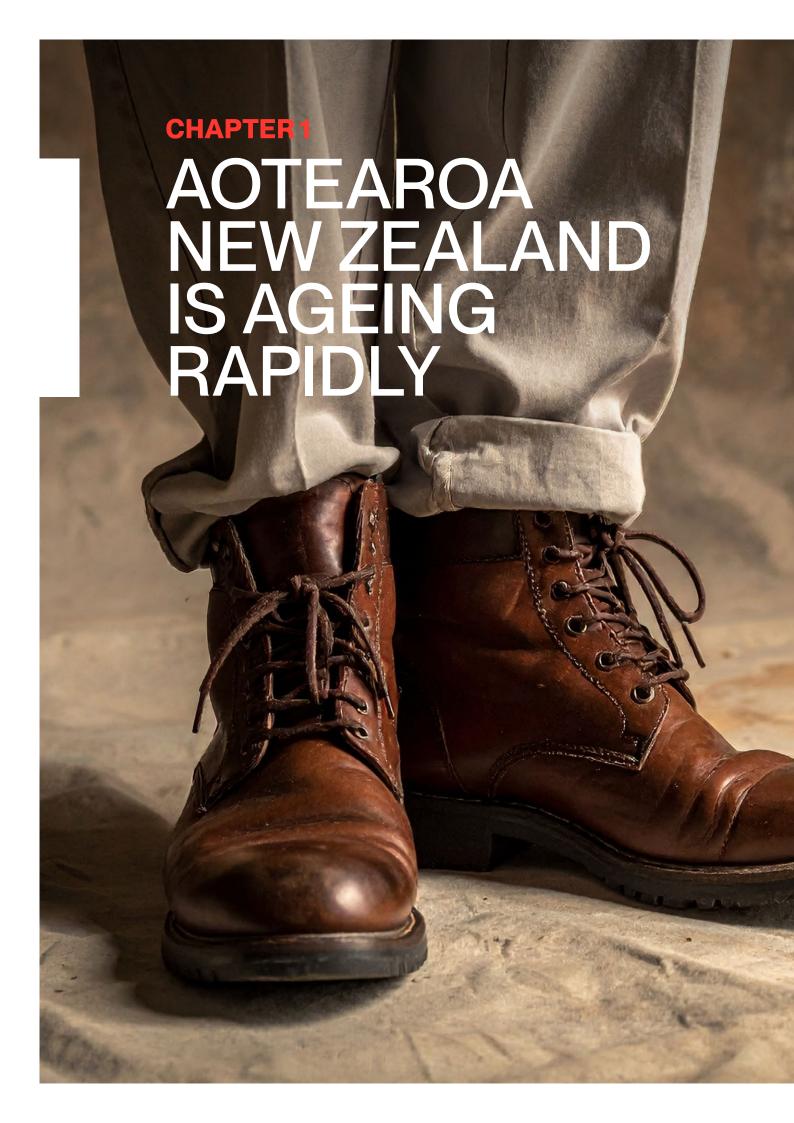


06

To promote active ageing, and enable older people to live happy, healthy, well-connected lives, with good access to services:

- The Government should commit more funding to help regions design and implement age-friendly city plans and put in place proper accountability mechanisms for these.
- Local authorities should zone for mixed use, higher density housing models to avoid sprawl and ensure people can easily access services, even without a private car.
- Expect that, in the future, some communities may need to become more compact as populations shrink and age, or that service provision may need to be limited. The Government should introduce policies to ensure that if and when this happens, any changes are undertaken in a fair and equitable way, with adequate community consultation.
- The Government should invest in initiatives such as regular driver refresher courses, vehicle safety checks and road design improvements to help older people keep driving safely, for longer.
- Local authorities should invest in alternatives to driving, such as more frequent, accessible public transport, community shuttle services, and better pedestrian and cycling infrastructure.
- Local authorities should make streets safer and more pleasant for older people to move around, by improving the quality of pavements and kerbs, making crossings safer, and ensuring the provision of adequate seating and lighting, for example.





Aotearoa New Zealand is entering a period of significant demographic change, with the number of people aged 65+ projected to reach around 1 million by 2028 – up from 870,000 in 2024. Within 25 years, the over 65s cohort will likely exceed 1.4 million (Stats NZ, 2024). This shift will have wide-ranging impacts on housing, employment, health, financial security, and social wellbeing, and will necessarily affect how the country plans and designs infrastructure to be fit for the future.

An ageing population is not unique to Aotearoa New Zealand but part of a broader global trend. Around the world, urbanisation, falling birth rates, and longer life expectancies are reshaping societies. More people are living not only longer but healthier lives – longer life expectancy is a positive story.

Many older New Zealanders continue to participate actively in the workforce by choice, and those aged 65+ report the highest life satisfaction of any age cohort (Stats NZ, 2021). Aotearoa New Zealand's policy settings have played an important role in this, with universal superannuation contributing to relatively low rates of poverty among older people compared with other OECD countries historically (Retirement Commission, 2021). That may be beginning to change, however – the country had the largest increase in income poverty for older people in the OECD between 2000 and 2020 (Yadav, 2024; OECD, 2023).

'Older people' are not a homogenous group and have a range of different needs

People aged 65+ in Aotearoa New Zealand are as diverse as any other age group. Older people living in urban and rural areas face different challenges, as do people of different ethnicities, or those living in different parts of the country. Gender, ethnicity, wealth, socioeconomic background, health status, physical health, disabilities, mental health, and personal circumstances all influence how people experience ageing, and shape their aspirations and needs in later life (Office for Seniors, 2019).

This report focuses on people over the age of 65 as that is when retirement commonly begins in this country; however, there is clearly a wide variation of ability and needs within that age cohort. The needs and experiences of a 65 year old are often very different from those of a 90 year old. While capability does not decline in a linear way as a person ages, the older the population, the more likely they will have higher needs on average.

In some territorial authorities – for example, the Kāpiti Coast, Gore, and Thames-Coromandel – more than 5 per cent of the population is already aged over 80 (Stats NZ, 2023). Those areas are likely to experience higher needs for healthcare and aged care facilities than a place with a younger population of over 65s. This underscores the importance of understanding local demographics in detail to tailor services and facilities adequately.

The country's population is increasing but so are both the number and proportion of older people living here

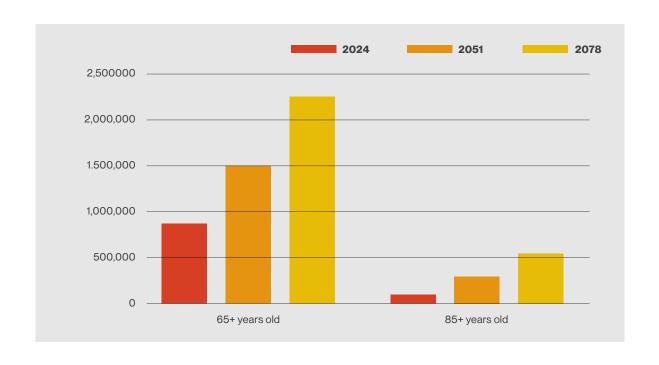
By 2051, Aotearoa New Zealand's population is expected to reach between 6.1 and 7.2 million, from a current population of 5.29 million. However, growth is expected to slow as the country ages, and the gap between the number of births and deaths (known as 'natural increase') will shrink over time (Stats NZ, 2024).

Of the four broad age groups used by Stats NZ (0–14, 15–39, 40–64, and 65+ years), growth is currently highest in the 65+ age band. Significantly, this is the case for all regions in the country (Stats NZ, 2024a).

In 2024, the number of New Zealanders aged 65+ was around 870,000. The size of this cohort is expected to increase very quickly, to 1.4 – 1.6 million in 2051. By 2078 there will likely be between 2 and 2.5 million people in the 65+ age group living here – nearly triple current numbers (Stats NZ, 2024).

Similarly, the cohort of people aged 85+ (which has higher health and care needs on average per individual) is also expected to increase significantly, from 95,000 in 2024 to between 275,000 and 322,000 in 2051. By 2078, over 85s will very likely number between 459,000 and 628,000 – a potential sixfold increase on today's numbers.

Figure 1:The projected number of older people in Aotearoa New Zealand over time (Stats NZ, 2024)



An increase in the total number of older people is clearly important when considering infrastructure needs, because it impacts the quantity and type of infrastructure that may be needed to support that cohort – such as aged care facilities and increased health care facilities, for example.

However, the increasing proportion of older people compared to other age groups is also important, because, in the future, fewer people of working age will be financially supporting a larger population. Population ageing is expected to substantially increase the fiscal cost of superannuation and health care, for example, but there will be proportionally fewer tax payers to cover costs (The Treasury, 2024).

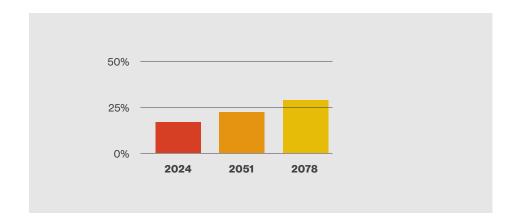
Currently, around 17 per cent of the total population is aged 65+. This proportion is expected to rise to between 21 and 24 per cent by 2051,

and to between 25 and 33 per cent in 2078 (Figure 2). In other words, there is a good likelihood that the proportion of the population aged 65+ will nearly double in 50 years (Stats NZ, 2024).

A population where over 20 per cent of the population is aged 65+ is commonly said to be 'hyperageing' (Jackson & Brabyn, 2017), and Aotearoa New Zealand is rapidly heading towards that position.

Proportional growth in the cohort of those aged 85+ will be even greater. That cohort comprised 2 per cent of the population in 2024, but will make up between 6 and 8 per cent in 2078. The inevitable price pressures resulting from such a steep increase of people in this age group suggest the country must plan carefully to ensure their needs are met.

Figure 2: Projected percentage of Aotearoa New Zealand's population aged 65+ over time.



Population ageing is caused by declining birth rates and extended life expectancies

Between 1945 and 1965, Aotearoa New Zealand had one of the largest and longest-lasting post-war 'baby booms'. This age cohort started to reach the age of 65 in 2010 (Spoonley, 2021). However, the Baby Boomers are only part of the country's demographic shift: once they have moved through the age structure, the country's population will continue to age. This is due to declining birth rates and extended life expectancies (Stats NZ, 2024).

Until relatively recently, Aotearoa New Zealand has experienced replacement levels of fertility (2.1 births per woman or higher), unlike most of southern Europe, Germany, or Japan. However, in 2017, the fertility level fell to a level below replacement for the first time. (Spoonley, 2021). The total fertility rate for Aotearoa New Zealand for births registered in 2022–2024 was 1.60 births per woman (Stats NZ, 2025) – well under replacement level.

Fertility rates differ greatly by region, ranging from 1.25 in Otago and 1.36 in Wellington, through to 2.14 in Northland and Gisborne (Stats NZ, 2025c). By 2048, however, deaths are projected to outnumber births across 75 per cent of Aotearoa New Zealand's regions, and in two thirds of the country's 67 territorial authorities (Stats NZ, 2024a). By 2053, deaths are expected to surpass births for the country as a whole (Stats NZ, 2024a). At current fertility rates, Aotearoa New Zealand's population would eventually decline to zero without immigration in the picture (The Treasury, 2024).

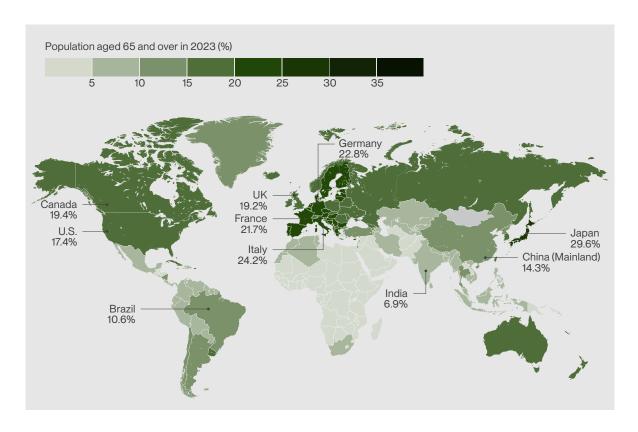
Meanwhile, life expectancies for both men and women have increased by over 10 years since the 1950s (Stats NZ, 2021b). We now have a much larger group of adults surviving into their 80s, 90s and beyond. By 2073, average life expectancy is expected to continue to increase a further six years approximately compared to 2022 (to 90 for women and 87 for men), so this trend will continue (Stats NZ, 2022).

Structural ageing is not reversible

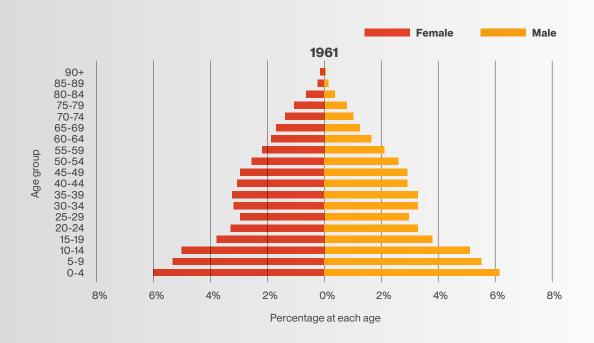
Where the proportion of children and younger people in the population decline relative to older people, this is known as structural ageing. Visually, a young population structure resembles a pyramid – it has a wide base of children and a narrow top of seniors. An older population structure is narrower, and looks more like an obelisk. Aotearoa New Zealand is not as far down this track as some nations (the countries of Western Europe and Japan are notable examples of hyper-aged populations) (Figure 3), but structural ageing is taking place here, and is almost impossible to reverse. While it can be slowed with high immigration levels, those immigrants will eventually also age (Mitchell, 2025). Figure 4 shows the process of structural ageing over time in Aotearoa New Zealand.

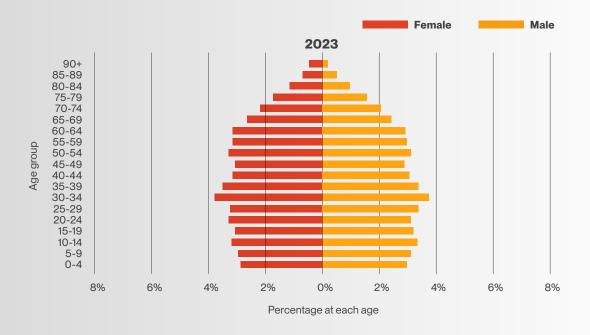


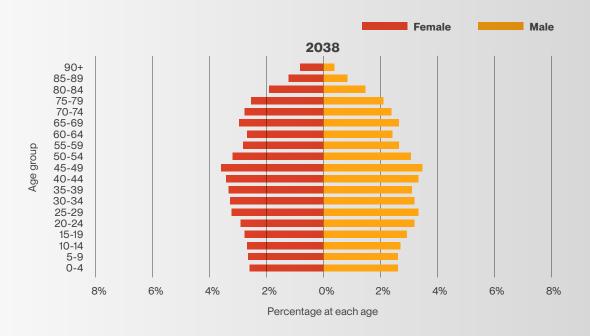
Figure 3:
Population aged 65 and over in 2023 (World Bank & United Nations 2024, cited by Takenaka, 2025).

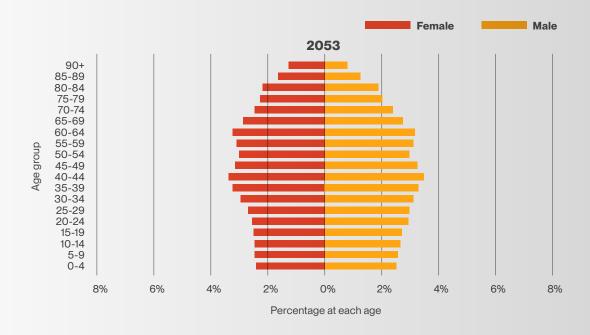












In Aotearoa New Zealand, different ethnic groups are structurally ageing at different rates. Māori and Pacific peoples' population structures have a significantly younger profile for example. However, the number of

people aged 65+ is expected to increase for all the country's main ethnicities. The number of Māori over 65 will double in the decade to 2029, for example (Ministry of Housing and Urban Development, 2023).

By region, population ageing is uneven across the country

Examining the country's age distribution by region reflects that some areas are more popular with older cohorts entering retirement and/or less popular with working age people, leading to higher percentages of those aged 65+ living there.

In Marlborough, Tasman, the West Coast, and Northland those aged 65+ already make up 20 per cent or more of the population, making their population 'hyperaged'. By 2048, those same regions will be heading towards, or have surpassed, a proportion of more than 30 per cent of the population having reached the age of 65 or older. Figures 5 and 6 show the percentage of people aged 65+ within each region of Aotearoa New Zealand in 2023, compared to the projected percentages in 2048 (with the proviso that current regional projections use 2018 census data).



Figure 5:Percentage of population aged 65+ by region in 2023, and projected percentage in 2048 (Stats NZ, 2023a, Stats NZ, 2024a).

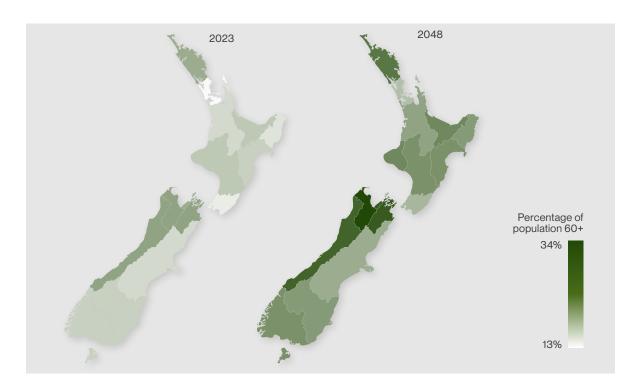


Figure 6:Projected change in percentage of population aged 65+ by region (2023-2048) (Stats NZ, 2023a; Stats NZ, 2024a).

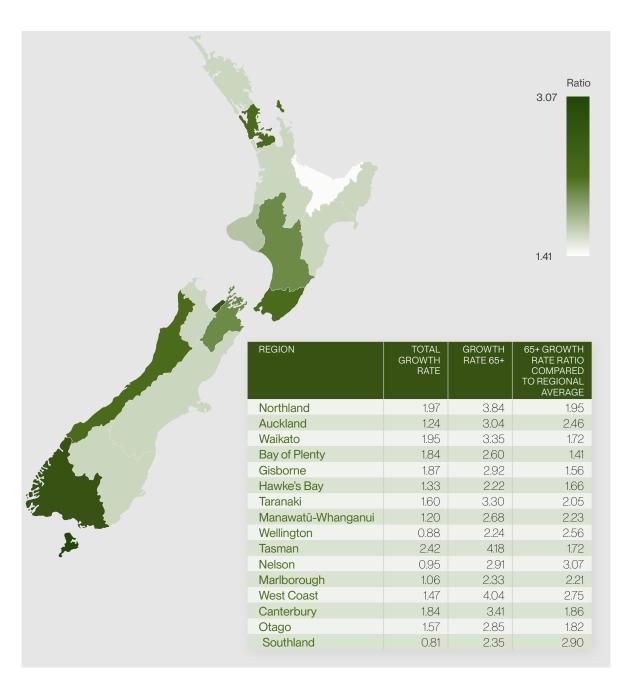
| REGION | 2023 - POPULATION 65+ | 2048 - PROJECTED POPULATION 65+ | 2023 - % OF POPULATION 65+ | 2048 - PROJECTED % OF POPULATION 65+ |
|----------------------------|------------------------------------|--|---|---|
| Northland Region | 43,800 | 69,000 | 22.0% | 28.6% |
| Auckland Region | 225,879 | 426,100 | 13.4% | 20.2% |
| Waikato Region | 88,014 | 146,800 | 17.4% | 23% |
| Bay of Plenty Region | 66,711 | 110,800 | 19.6% | 26.6% |
| Gisborne Region | 8,415 | 13,400 | 16.5% | 24.5% |
| Hawke's Bay Region | 33,711 | 53,600 | 18.9% | 25.9% |
| Taranaki Region | 24,273 | 37,100 | 19.2% | 26.8% |
| Manawatū- Whanganui Region | 49,710 | 72,200 | 19.6% | 25.9% |
| Wellington Region | 83,175 | 129,400 | 15.8% | 21.4% |
| Tasman Region | 14,319 | 23,000 | 23.3% | 33.9% |
| Nelson Region | 11,931 | 18,100 | 22% | 31.5% |
| Marlborough Region | 12,558 | 17,500 | 23.8% | 31.7% |
| West Coast Region | 8,670 | 9,200 | 23.8% | 30.7% |
| Canterbury Region | 117,756 | 176,200 | 17.7% | 22.5% |
| Otago Region | 46,716 | 69,000 | 18.3% | 24.5% |
| Southland Region | 19,698 | 27,200 | 18.9% | 25.6% |

In the period 2018–2023, the 65+ age group grew at a faster rate than any other age cohort in all 16 regions of the country, meaning every region in Aotearoa New Zealand is ageing – though at different speeds.

Regions often thought of as older, such as Nelson, continue to age at a fast rate, with over triple the growth rate in the 65+ category compared to the average across all ages. Meanwhile, regions that have skewed younger in the past – such as Auckland and

Otago – are also growing older, though more slowly. In both those places, the growth rate in the oldest age bracket is more than 80 per cent higher than the average rate for the general population. Figure 7 shows the ratio of growth in the 65+ population compared to the regional average.

Figure 7:Growth rate ratio of over 65s compared to total growth rate, by region, 2018–2023.



Both the proportion and the total number of older people is relevant for regions and local authorities

As noted above, the proportion of older people in an area tells only part of the story when assessing infrastructure needs – the total number of older people who may require access to services such as health and aged care is also important. For example, Auckland City has around 226,000 people aged 65+, though they make up only 13.4 per cent of the total population (Stats NZ, 2023). Although the Auckland region has the youngest population structure of any region, and this is not expected to change, the region can expect nearly 200,000 extra people aged 65+ to be living there by 2048.

In fact, the regions with the biggest cities in Aotearoa New Zealand can each expect to be supporting tens of thousands more people aged 65+ by 2048 (Figure 6), even while the proportion of older people remains lower than it does for smaller regions. This level of growth will place significant fiscal pressure on infrastructure such as aged care and housing in bigger cities (Ministry for Housing and Urban Development, 2023; Stats NZ, 2024a).

By contrast, Marlborough currently has a high proportion of people aged 65+ (23.8 per cent), but a relatively low number of seniors in total (12,500). By 2048, the proportion of those aged 65+ is likely to rise to 31.7 per cent – but this comprises a projected increase of just 5,000 people. Despite the high proportion of older people, less new infrastructure will be needed in Marlborough than in Auckland for example. However, paying for what is needed will likely still be a struggle, due to smaller rates base in the area.

Within regions there is also significant variation

The percentages of older people at the regional level hide significant variation within those areas. For example, in the Otago region, Queenstown Lakes attracts a younger workforce and has a lower than average percentage of people aged 65+ (14.8 per cent). By contrast, Central Otago has a very high proportion of older people (24.9 per cent). This poses challenges for regional and local councils, which must grapple with different ageing dynamics across the areas they are responsible for. Figure 8 shows the percentage of those aged 65+ in each of the 67 territorial authorities, and the growth rate of that age group in each area.

In general, cities are more likely to have lower proportions of people aged 65+ than districts, with Hamilton, Wellington, Lower Hutt, and Christchurch cities all projected to have fewer than 20 per cent of people aged 65+ in 2048 (Stats NZ, 2024a)

Figure 8: Annual growth rate (2018–2023) and current proportion of over 65s in territorial authorities (Stats NZ, 2023).

| GROWTH STATS | | | PERCENTAGE OF 65+ IN TA |
|----------------------------|----------------|------------|----------------------------|
| REGION | GENERAL GROWTH | 65+ GROWTH | 65+ % |
| Thames-Coromandel District | 0.6 | 2.5 | 33.7 |
| Kaikōura District | 1.7 | 8.2 | 29.2 |
| Buller District | 2.0 | 5.0 | 26.9 |
| Kāpiti Coast District | 0.8 | 1.3 | 26.8 |
| Hauraki District | 1.5 | 3.2 | 25.8 |

| GROWTH STATS | | | PERCENTAGE OF 65+ IN TA |
|--------------------------------|----------------|------------|----------------------------|
| REGION | GENERAL GROWTH | 65+ GROWTH | 65+% |
| Central Otago District | 2.7 | 4.5 | 24.9 |
| Carterton District | 2.0 | 3.7 | 24.8 |
| Horowhenua District | 2.2 | 2.3 | 24.8 |
| Waitaki District | 0.9 | 2.3 | 24.4 |
| Kaipara District | 2.7 | 4.4 | 24.3 |
| Waimate District | 1.1 | 2.1 | 24.0 |
| Westland District | -1.0 | 3.3 | 23.9 |
| Marlborough District | 0.8 | 2.2 | 23.8 |
| Hurunui District | 1.9 | 5.6 | 23.7 |
| South Wairarapa District | 2.5 | 3.7 | 23.6 |
| Tasman District | 2.2 | 4.5 | 23.3 |
| Timaru District | 0.4 | 1.5 | 22.9 |
| Western Bay of Plenty District | 2.3 | 3.8 | 22.7 |
| Masterton District | 1.6 | 3.3 | 22.6 |
| Far North District | 1.8 | 4.4 | 22.5 |
| Whanganui District | 1.0 | 2.7 | 22.2 |
| Mackenzie District | -1.6 | 4.2 | 22.1 |
| Nelson City | 0.5 | 3.0 | 22.0 |
| Waimakariri District | 2.2 | 4.8 | 21.6 |
| Matamata-Piako District | 1.6 | 3.4 | 21.6 |
| Gore District | 0.6 | 1.8 | 21.5 |
| Taupō District | 1.2 | 3.2 | 21.4 |
| Grey District | 1.0 | 3.6 | 21.3 |
| Whangārei District | 1.3 | 3.2 | 21.1 |
| Central Hawke's Bay District | 1.6 | 3.1 | 21.0 |
| Chatham Islands Territory | -1.3 | 6.7 | 20.9 |
| Napier City | 0.4 | 1.4 | 20.8 |
| Tararua District | 1.1 | 3.3 | 20.7 |
| Rangitīkei District | 0.9 | 2.6 | 20.4 |
| Ashburton District | 1.0 | 3.1 | 20.1 |
| Kawerau District | 1.1 | 1.2 | 20.0 |
| Ōpōtiki District | 2.0 | 3.5 | 20.0 |
| Tauranga City | 2.4 | 2.6 | 20.0 |
| New Plymouth District | 1.5 | 3.5 | 19.8 |
| Whakatāne District | 0.9 | 3.1 | 19.6 |

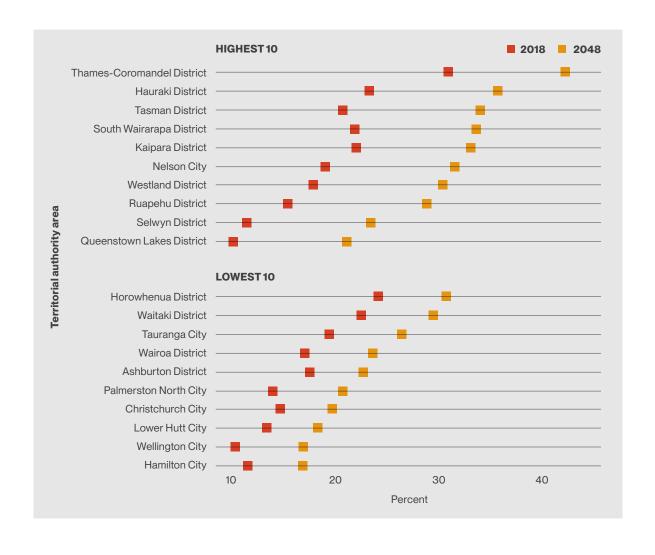
| GROWTH STATS | | | PERCENTAGE OF 65+ IN TA |
|---------------------------|----------------|------------|----------------------------|
| REGION | GENERAL GROWTH | 65+ GROWTH | 65+% |
| Clutha District | 0.6 | 2.7 | 19.5 |
| Manawatū District | 1.4 | 3.2 | 19.5 |
| Waipa District | 1.9 | 4.0 | 19.4 |
| Ruapehu District | 0.3 | 4.8 | 18.6 |
| Southland District | 0.5 | 3.4 | 18.6 |
| Invercargill City | 0.5 | 1.8 | 18.6 |
| Wairoa District | 1.2 | 2.4 | 18.3 |
| Stratford District | 1.1 | 2.0 | 18.2 |
| Waitomo District | 0.6 | 3.4 | 18.1 |
| South Taranaki District | 1.1 | 3.5 | 17.8 |
| Dunedin City | 0.3 | 1.6 | 17.4 |
| South Waikato District | 1.1 | 1.9 | 17.3 |
| Hastings District | 1.0 | 2.0 | 17.3 |
| Ōtorohanga District | O.1 | 3.4 | 17.1 |
| Christchurch City | 1.0 | 2.5 | 16.6 |
| Gisborne District | 1.4 | 2.4 | 16.5 |
| Rotorua District | 0.2 | 1.9 | 16.1 |
| Upper Hutt City | 0.8 | 2.4 | 16.0 |
| Palmerston North City | 0.6 | 2.6 | 15.8 |
| Lower Hutt City | 0.6 | 2.3 | 14.9 |
| Queenstown Lakes District | 3.4 | 5.9 | 14.8 |
| Waikato District | 2.7 | 5.1 | 14.2 |
| Auckland | 1.2 | 3.1 | 13.4 |
| Selwyn District | 5.3 | 7.9 | 13.2 |
| Porirua City | 1.1 | 3,3 | 13.1 |
| Hamilton City | 1.6 | 2.8 | 12.6 |
| Wellington City | -O.4 | 2.2 | 12.1 |

Focusing on districts rather than regions, Thames-Coromandel district (in Waikato) is expected to have the highest proportion of the population aged 65+ in 2048 (as it does today), with just over two in every five people in this age group by 2048 (42 per cent). Other districts where more than one in three people will be aged 65+ in 2048 include Hauraki, Tasman, and South Wairarapa (Stats NZ, 2024a).

Figure 9 shows the territorial authorities projected to have the fastest and slowest change in their percentage of population aged over 65 between 2018 and 2048 (with medium probability) (Stats NZ, 2024a).



Figure 9:
Projection of the percentage of the population aged 65+ (2018–2048), in the 10 territorial authorities with fastest and slowest growth rates (Stats NZ, 2024a).





As birth rates fall, migration has become the primary driver of Aotearoa New Zealand's population growth

Migration is a key part of the demographic story of Aotearoa New Zealand. Between 2013 and 2024, the country gained more than half a million people from net migration (Stats NZ, 2025). Other than a small net loss in 2021 due to the COVID-19 border restrictions, this period comprised both the most sustained period of net gain, and the highest annual net gains from migration in the nation's history (Spoonley, 2021; Stats NZ, 2025). This stands in stark contrast to the modest gain of just 35,000 between 2006 and 2013.

Historically, population growth in Aotearoa New Zealand has been due mostly to natural increase (via high birthrates), but declining fertility rates have meant migration now plays a far greater role. Recent analysis suggests migration is expected to account for around two-thirds of population growth as the country moves toward a population of 6 million (Reid, 2025). In a scenario with no migration, the population would peak in the early 2040s and then start to decline as deaths outnumber births

However, migration into and out of the country is highly volatile. Flows respond quickly to global and domestic economic conditions and policy shifts, and a free movement arrangement with Australia enables large numbers of New Zealanders to move abroad and return again with relative ease (New Zealand Productivity Commission, 2022). Sudden changes, such as unexpectedly high numbers leaving or returning, can have significant impacts on Aotearoa New Zealand's population size and correspondingly, on its infrastructure needs. Recent figures highlight this volatility. Record numbers of Aotearoa New Zealand migrants left the country through 2023 and into 2024 (McKenzie, 2024). Figures remain high, with 69,100 leaving in the year to February 2025 (Stats NZ, 2025a).

Internal migration is also shaping the look of the country

Alongside international migration, internal migration patterns are reshaping the demographic profile of regions. Working age people, and particularly young people aged 15–24, are moving from rural areas towards the larger cities (Figure 10). By contrast, those over 65 tend to leave bigger cities and disperse across the country - though with a preference for places in the north and south of the North Island and the north of the South Island (Figure 11).

All regions other than the West Coast are likely to have more people in 2048 than in 2018 (based on medium projections) (Stats NZ, 2024a). However, this disguises the fact that in many regions key towns are growing while the surrounding rural areas and

smaller towns are both ageing, and declining in numbers (Spoonley, 2021).

As the century progresses, some territorial authorities can expect to experience the double whammy of natural decline (deaths exceeding births) and net loss from migration (Jackson & Cameron, 2018). Jackson and Brabyn (2017) note that towns are more likely to be hyperageing than rural areas, suggesting that lifestyle and amenity factors incentivise older people to move both from larger towns but also from more remote rural areas into smaller town hubs. These trends have therefore placed particular pressure on rural towns (Duff, October 13 2025).

Figure 10: Average annual net migration of people aged 15-24 (CaDDANZ, n.d.)

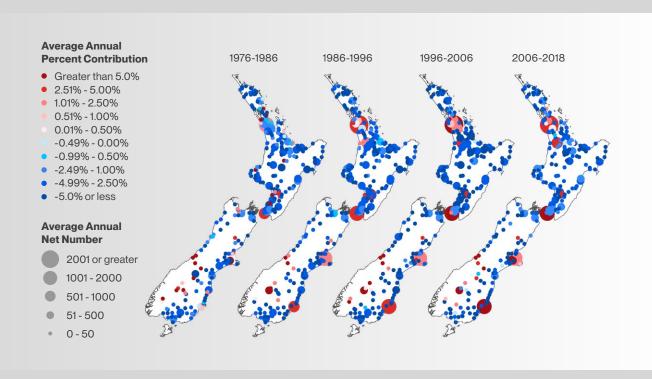
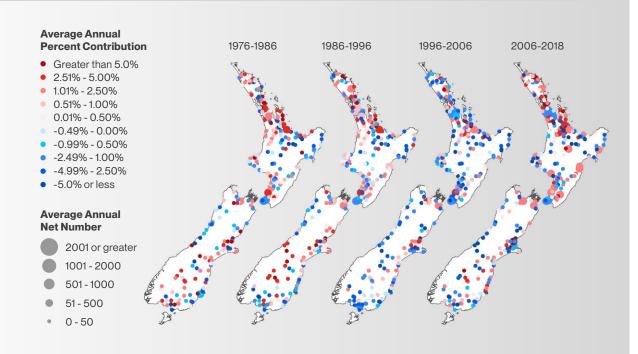


Figure 11:

Average annual net migration of people aged 65+ (CaDDANZ, n.d.)



Population stagnation or decline in many territorial authorities over the next decade and beyond is likely to put extreme fiscal pressure on areas that are already struggling to pay for much-needed infrastructure.

The demographic trends covered in this chapter are significant, both in terms of the fiscal impact they will place on the country (discussed in more detail in Chapter 7), but also in terms of the type and quantity of infrastructure that will be needed to support health and happy ageing. The following chapters examine the extent to which we are preparing to match these demographic challenges in healthcare, housing, aged care, and the way we design urban areas.



'Infrastructure' in this report means the full range of physical (built and natural), social, and technological foundations Aotearoa New Zealand will need to adapt and strengthen to meet the challenges and opportunities of an ageing society.



Discussions about ageing populations often frame demographic change as a crisis, with a focus on what it will cost and how the country will pay (Davey & Glasgow, 2006). It is true there are significant financial challenges on the horizon. As the country's population ages, there will be more strain on health services, and on aged care, in a system already creaking under the strain. Superannuation costs will continue to increase, but likely so will financial hardship, as fewer people reach retirement owning their own homes (Retirement Commission, 2021). And proportionally there will be far fewer people of working age to pay these increased costs in the future. These issues are covered in more depth in the following chapter.

Yet there is another side to the story: planning for an ageing society creates opportunities to recognise the significant contributions older people already make, and to consider how they can be supported to remain active, healthy, and engaged well into old age. By doing so we not only strengthen communities but also help reduce costs in healthcare and social care.



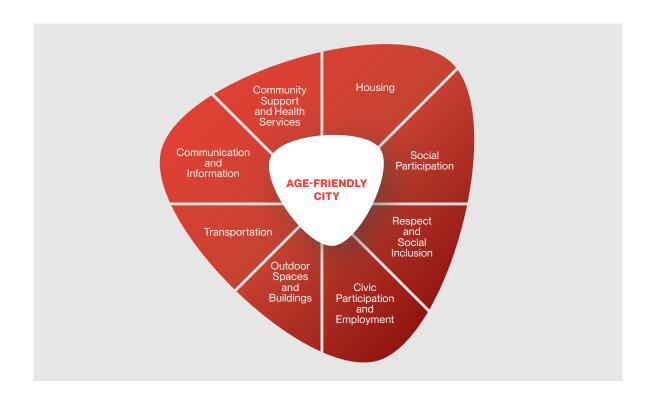
The determinants of healthy ageing

Active and healthy ageing depends on a variety of social, cultural, and economic determinants that surround individuals, families and nations (Figure 12) (World Health Organization, 2007). These determinants make most sense if seen as part of a life-course perspective that recognises that older people are not a homogeneous group and that individual diversity increases with age.

The determinants that relate most closely to infrastructure are investigated in more depth in this chapter under four topic areas:

- Housing
- · Aged care
- Health
- Urban design and transport for active ageing

Figure 12: Social and cultural determinants of age-friendly cities (World Health Organization, 2007).



Each of these topic areas is interconnected, and the challenges older people face – such as reduced mobility or no longer being able to drive – can be addressed in multiple ways. These range from the very specific (more visible road signage for example), through to the more holistic (tackling poverty to improve access to housing).

For example, an approach to ageproofing transport networks might include policies to extend safe driving years, or improve public transport. Equally, it might take a life-course approach by embedding accessible transport options into urban design from the outset and ensuring these are widely affordable.

Wider social and environmental issues are also extremely relevant. Wealth and poverty significantly shape opportunities for older people, influencing access to housing, healthcare, and community participation. Tackling inequities in old age is therefore inseparable from addressing the causes of poverty as people age.

Infrastructure is an investment in quality of life

When surveyed, the factors older New Zealanders say are important for a good life include:

- · an adequate income
- a place to live

- social connectedness
- being able to move freely around their community and
- access to affordable health care (Office for Seniors, 2019).

Figure 13:Factors for a good life as people age:



A large Australian survey similarly found that the top two priorities for over 65s for ageing well were staying active and being able to access health services (Bolton Clarke, 2023). Good infrastructure, including walkable neighbourhoods, parks, accessible public transport, and well-planned roads can help a greater number of older people remain healthy and independent for as long as possible, while being engaged meaningfully in their communities. It can reduce feelings of isolation and loneliness and help older people feel valued and respected.

This connects directly to broader planning issues: the way we organise cities, provide housing, and ensure access to healthcare all influence how well people can remain active and independent in later life. Well-considered spatial planning and fit-for-purpose infrastructure is not just a cost, but an investment in public health, with direct benefits for the wider population.

Designing for older people means designing for everyone – safe streets, efficient public transport, and local facilities work better for people with disabilities and neurodivergencies, as well as families with young children. Better walking and public transport options also reduce emissions and pollution, and more green spaces benefit biodiversity, as well as feeding back into better public health outcomes for all.

As noted previously, older people are not a homogenous group and people have different needs at different ages. In the Australian survey (Bolton Clarke, 2023), responses around priorities changed with age. Staying active and access to health services became an increasingly high priority for respondents as they aged, above financial security.

With this in mind, infrastructure investment and planning choices that enable older people to live independently, to stay active and connected, and to access essential services such as healthcare must be key priority areas when planning for an ageing population.

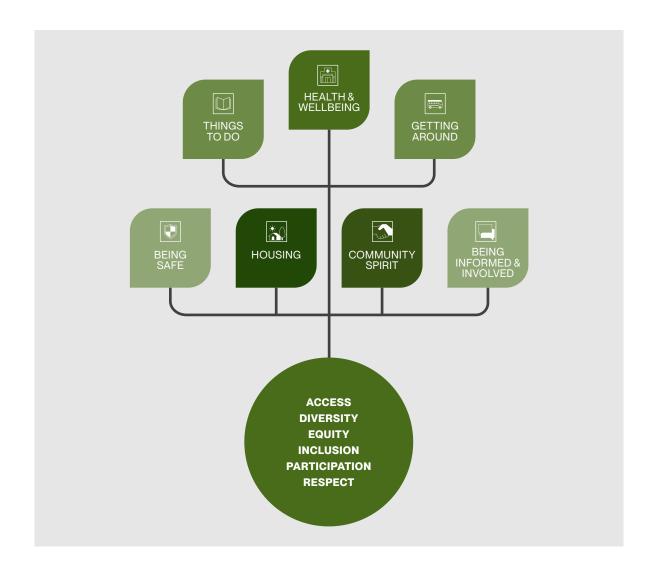
The next chapters provide an overview of some of the key types of infrastructure that will be most impacted by the ageing population. We have chosen to focus on housing, aged care facilities, healthcare, and active ageing through urban design and transport – four areas that are

particularly important for the wellbeing of older people.

The provision of other types of infrastructure, such as that needed for development in cities that are growing at pace (new roads, water, and sewerage, for example) is less of a focus here given it is not specifically relevant to an ageing population. However, it is clearly relevant to the context in which any kind of new investment will happen and will necessarily impact the amount of resources available to pay for infrastructure across the board.

Figure 14:

Napier Positive Ageing Strategy – a framework for happy ageing (Napier City Council, 2020).







Aotearoa New Zealand policy promotes 'ageing in place'

Since the late 1990s, Aotearoa New Zealand has embraced a policy of 'ageing in place', following a concept developed by OECD countries:

"Elderly people, including those in need of care and support should, wherever possible, be enabled to continue living in their own homes, and where this is not possible, they should be enabled to live in a sheltered and supportive environment which is as close to their community as possible, in both the social and geographical sense." (OECD, 1994)

Ageing in place comprises a raft of approaches to support older adults to live independently in their own homes and communities for as long as possible, rather than entering residential care or medicalised institutions. In this country, it is currently implemented under the 'Better Later Life Strategy, He Oranga Kaumātua 2019 to 2034', which promotes "valued, connected and fulfilling lives" for older New Zealanders (Office for Seniors, 2019).

The strategy is focused on ensuring accessible environments, creating diverse housing options to enable independent ageing in place, enhancing opportunities for participation and social connections, promoting healthy ageing, and fostering financial security and economic participation (Office for Seniors, 2019). Accessible and fit-forpurpose infrastructure is relevant to all those focus areas.



Housing is a particularly important contributor to quality of life for older people, and is essential to safety and wellbeing. Older people typically spend more hours at home than other age groups. Safe, warm, and accessible housing reduces risk such as falls, illnesses, or hospitalisation, which become more common with age. And suitable housing allows people to stay independent for longer, delaying the need for residential care (World Health Organization, 2007).



Evidence suggests that Aotearoa New Zealand's policies encouraging ageing in place – such as home care support services – have been successful in allowing older adults to stay in their homes longer. Slightly less than 5 per cent of older New Zealanders live in aged residential care (primarily those over 85), while the overwhelming majority live in private dwellings (Stats NZ, 2025b). Most seniors (more than eight in 10 of those living in a private home) own their home or hold it in a family trust. This means the majority have a reasonable amount of security over their living situation. At the 2023 Census, just 33,417 people were living in residential care for older people. (Stats NZ, 2025b).

The country has a serious housing shortage

As Aotearoa New Zealand's population ages, however, the country's existing housing shortage will have increasing impacts for older people. According to Stats NZ (2021a), by 2043, nearly 474,000 new homes will be needed throughout New Zealand, with 33 per cent of those in the Auckland region. The housing shortage will impact both older renters and home owners, as shortages push up prices and make it harder to find appropriate housing across the board.

Research by the NZ Initiative (Hong, 2021) analysed how demographic pressures such as migration, fertility, and ageing are increasingly placing pressure on housing demand. Fewer people are living with children, and populations are ageing and living longer (Hong, 2021). Household sizes are shrinking, and will continue to reduce as the median age of the population rises. This means the country's housing needs will rise much faster than population growth (Hong, 2021).

26,246-34,556 ADDITIONAL HOUSES NEEDED YEARLY TO 2038. According to the NZ Initiative's research, from 2019 to 2038, the average additional number of dwellings needed each year over and above the country's current stock will most likely be between 26,246 and 34,556 (under medium life expectancy, fertility, and migration scenarios). Since 1992, Aotearoa New Zealand has added just 21,445 net private dwellings annually to the housing stock. This means the country is likely to have a significant – and rapidly increasing – shortfall in housing (Hong, 2021).

"The current housing crisis is just the tip of the iceberg – if the government does not change course, future generations will face abysmal housing affordability prospects."

(Hong 2021)



More older people will be renting in the future and housing poverty is an increasing challenge

In addition to the pressure caused by a shortage of housing, more older New Zealanders are finding themselves squeezed from home ownership into the rental market as house prices rise faster than incomes (Saville-Smith et al., n.d.). An increasing number of New Zealanders reaching retirement age will not own their own homes outright, as highlighted by a 2024 report by the University of Auckland Economic Policy Centre (Dale, 2024).

Ageing Well Principal Investigator Dr Kay Saville-Smith predicts that by 2040, only half of all New Zealanders over 65 years will own their own home – in 2001, that figure was significantly higher, at 82 per cent. Homelessness among the over 65 group is also increasing more rapidly than for other age groups (Saville-Smith et al., n.d.).

Population ageing will increase demand for accessible housing across all tenure types in Aotearoa New Zealand including rental,

owner occupied, and social housing (Retirement Commission, 2024).

A report commissioned by the Retirement Commission (2024) suggests the private rental sector is unlikely to provide sufficient accessible housing to meet growing demand or to support older renters to 'age in place'. Estimates suggest more than 600,000 New Zealanders aged 65 and over may be renting in the private rental sector by 2048, a 100 per cent increase on 2022 levels (Retirement Commission, 2024).

Renting generally offers less security of tenure than homeownership. Housing stock in the private rental sector is also generally in poorer condition than homes in private ownership, and older renters also tend to be economically disadvantaged and in poorer health than those who own their own home.

Research undertaken for the National Science Challenge shows that older renters are twice as likely as homeowners to live in poorly maintained housing and to experience health issues such as asthma, anxiety, and depression. They are also more likely to move into residential aged care rather than remain supported in the community (Saville-Smith et al, n.d.).

A recent report by Berl (Yadav, 2024) highlighted the combined impacts of an ageing population, growing inequality, and Aotearoa New Zealand's housing crisis in driving up the risk of poverty for older people, with risks even higher for women, and Māori and Pacific peoples. The report calls out an 'impending crisis'.

N 2001, **82%**

OF PEOPLE 65+
OWNED THEIR OWN
HOME. BY 2040,
ONLY HALF WILL.
(Saville-Smith et al., n.d.)



There is increasing pressure on council and state housing

The failure of housing to keep up with demand is of particular concern in the context of reducing numbers of state houses, which have acted as a safety net for older people in the past. The number of older applicants for public housing increased by 215 per cent between 2015 and 2024, the fastest increase among all age groups (Yadav, 2024).

Government policies in the early 1990s and 2010s included reducing the numbers of state houses, and there are now only 149 per 10,000 people of the population compared to the peak of 203 per 10,000 people in 1990. These numbers do not include local government (council) houses, which have also decreased substantially in number over the past decades (Olssen et al., 2010; Human Rights Commission, 2022).

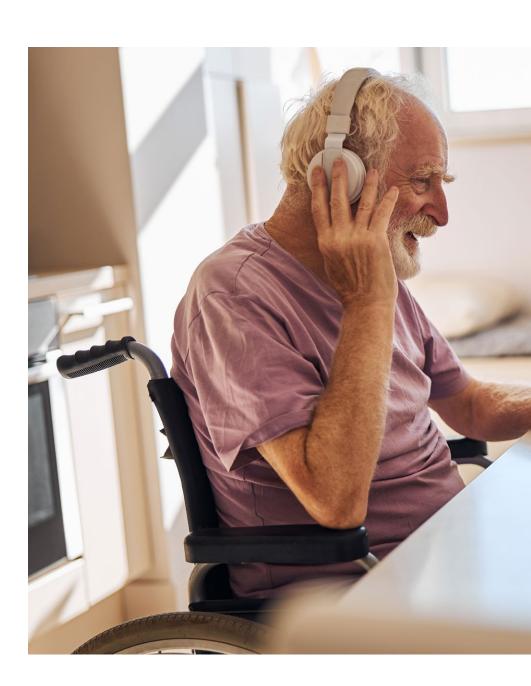
Historically, central government focused on delivering social housing to younger families, with local councils looking after seniors (Saville-Smith et al., n.d.). Since the 1990s, the government largely halted capital finance for social housing to councils and since then the stock of councilowned public housing has also declined rapidly.

There has been no comprehensive social plan to house the increasing numbers of people living well into old age. Dedicated seniors' housing is in short supply in many cities and waiting times can be long. Instead, the majority of accommodation available to older renters is provided by a private rental market that is already under pressure (Saville-Smith et al., n.d.).

Better housing accessibility would support ageing in place

Importantly, ageing in place does not always mean remaining in the same home – some individuals may relocate to other private housing better suited to their care needs. A range of housing options in the local area to accommodate changing needs is therefore regarded as an important age-friendly feature (World Health Organization, 2007)

Use of occupational therapy, and tailored home modifications were found in a recent American study (Washington et al., 2025) to be



extremely cost effective at enabling older people to remain at home rather than move to aged care. Participants experienced increased independence and reduced home hazards where tailored solutions were provided to allow them to remain at home.

Accessible housing refers to housing that is built or modified to be safer and easier to use, including for people with limited mobility, temporary injuries, or permanent disability (Retirement Commission, 2024a). Accessibility features can support older people to 'age in place'. Other terms like 'universal design', 'future-proofing', and 'age-friendly housing' are also used to describe accessible housing (Retirement Commission, 2024).

Accessible housing is especially an issue for older people with existing or new disabilities. Much of the housing available in the rental market is unsuitable for older people, and most houses are not built incorporating the principles of universal design (i.e. accessible and inclusive for all users (Saville-Smith et al., n.d.). Only 5 per cent of rental housing in Aotearoa New Zealand is accessible, for example (Judkins, 2023).

Those aged 65 or over are much more likely to be disabled (59 per cent) than adults under 65 years (21 per cent) (Kāinga Ora, 2019). In fact, over a third of New Zealanders with a disability are aged 65 or over. This percentage is projected to increase significantly in the coming years (Kāinga Ora, 2019).

Older people are more likely to have mobility, agility, and sight-related disabilities than other age cohorts. People with disabilities generally are also significantly less likely to own their own homes than others (Human Rights Commission, 2021). Living with a disability over the age of 65 can present particular challenges and potential barriers when it comes to living well and independently (Kāinga Ora, 2019).

Evidence suggests many New Zealanders with physical disabilities, including renters and homeowners, have an unmet need for modifications to improve the accessibility of their home (such as wheelchair access, and level floors). Aotearoa New Zealand's existing housing stock is not well configured to support those with disabilities, and the cost of modifying existing dwellings can be high (Retirement Commission, 2024)

The best time to incorporate accessibility and universal design is during new builds or renovations. In fact, the cost of implementing 100 per cent of accessibility standards at the design stage has been calculated to be less than one twentieth of the cost of retrofitting the features in an existing home, according to the New Zealand Disability Support Network (2022).



THE COST OF
IMPLEMENTING
ACCESSIBILITY
STANDARDS AT THE
DESIGN STAGE IS LESS
THAN

ONE TWENTIETH

THE COST OF RETROFITTING AN EXISTING HOME.

While Aotearoa New Zealand has legislation covering access to buildings, these requirements generally apply to spaces with public access rather than private housing. Private and residential buildings are not required to follow universal design standards under the Building Act 2004, though specific requirements are provided about access routes, ramps, stairs, and handrails, for example.

For public housing, Kāinga Ora (2019) has had an accessibility policy since 2019 targeted at meeting the needs of people with disabilities. This sets out their commitment to ensure 15 per cent of its new-build public housing meets full universal design standards, while the rest should meet "as many of our universal design standards as possible" (Kāinga Ora, 2019).

While an official information release in 2023 (Shivas, 2023) found only 1.5 per cent of new builds at that time were meeting the required standards, the number of new builds built to sufficient standards appears to have been improving since then. In 2022/23, 19 percent of the total number of eligible new-build Kāinga Ora homes met full universal design standards, as did 20 per cent in 2023/24. As well as building homes, Kāinga Ora works with funding agencies to modify existing properties to meet individual needs of clients. As at 31 January 2025, there were 15,828 Kāinga Ora homes with modifications, such as ramps and handrails (Kāinga Ora. 2025).

"Poverty is... an issue for many disabled people, but the lack of accessible homes means even those with sufficient income cannot buy their way out of the problem."

Disability Rights Commissioner Paul Tesoriero (Human Rights Commission, 2021)



While more accessible public housing is being built now than in the past, the country is a long way from keeping up with current demand, much less future demand (Human Rights Commission, 2021). Experts including the Human Rights Commission have called for the government to commit to a target of 100 per cent accessibility for new build public housing, and to also introduce mandatory accessibility requirements for new housing constructed by the private sector.



A literature review for the National Science Challenge (James et al., 2024) noted that improving mainstream housing stock for accessibility is critically important to meet the challenges of an ageing population and the growing prevalence of disability: "Accessibility is ... a key determinant of whether health and social services, care and support can be provided in the home". Because the vast majority of new stock is built by the private sector in this country, improving its accessibility will be essential to meet the needs of the ageing population. This must happen alongside efforts to improve the quantity, and accessibility of public housing.

Type and size of housing needs to be more flexible

The best way to promote ageing at home is to ensure a good range of affordable, accessible properties are available, with good access to public transport and other services, in a range of sizes to accommodate the diversity of people as they age (Office for Seniors, 2019). Housing options that can work well for older people, in addition to stand alone houses include:

- · co-housing
- tiny homes
- · granny flats
- · studio apartments
- · multigenerational housing options.

Unfortunately, different options are not always readily available, or affordable. Developers also often favour stand alone homes on their own sections as there is a good return on investment for these. Options such as tiny homes, can face additional barriers in terms of zoning, and time-consuming consenting processes or face outright bans from some councils (Dale, 2024). Exacerbating the problem is the shortage in smaller houses and flats. While 50 per cent of people on the housing register require a onebedroom home (including many older people), just 11 per cent of public housing, and 13.6 per cent of private housing, is made up of one-bedroom homes (Yadav, 2024).

Similarly, multigenerational housing – often favoured by Māori and Pacific families – is housing (one or more houses on a single site) occupied by related adults from more than one generation. This type of housing can be challenging for developers to design in a profitable way, and sometimes the consenting process presents additional challenges (Allen et al., 2025).

The Government has recently moved to make it easier to build a granny flat on an existing property, which may make more of this type of accommodation available.

Moving to make different types of accommodation not just easier to build in terms of consent processes, but proactively encouraging a range of housing types and sizes through planning and zoning rules will be crucial to meet future demands.





RECOMMENDATIONS

- Recognise the human right to decent housing at both central and local government level by proactively planning and investing to ensure a sufficient supply of public and community housing suitable for older people. Housing options should be accessible, affordable, and informed by local and regional population projections.
- Increase the percentage of public housing new builds that are required to be fully accessible and compliant with universal design standards from 15 per cent to 85 per cent (or more), as recommended by the Disability Support Network, to catch up with the backlog.
- Use planning and zoning rules, and investigate other incentives, to stimulate interest in building more accessible private housing stock for both rental and sale, in a range of sizes. Plan for good access to public transport and services to accommodate the diversity of people as they age, as recommended by the Better Later Life Strategy (Office for Seniors, 2019).
- Provide stronger pathways to home ownership, especially for Māori, women, and Pacific peoples, as recommended by the Retirement Commission (2024).
- Investigate incentives to increase the uptake of accessibility modifications within the private rental sector to support older renters to 'age in place', as recommended by the Retirement Commission (2024).



Aged care facilities, sometimes referred to as nursing homes, rest homes, or residential care facilities, include more than 40,000 beds in this country (JLL, 2023). They are distinct from retirement villages, which are funded by individuals as a lifestyle choice, with an average age of entry of mid-70s (Broad et al., 2020). The average entry age for aged care facilities by contrast is 85 (Aged Care Association, 2025). While some retirement villages include funded aged care beds, not all do.



A senior will be eligible for care if they can show they have high or very high needs that are long-term / indefinite, and they cannot be safely supported within the community. Those who can afford to must cover their care costs until the value of their assets falls to a certain threshold. Aged care facilities are a cheaper alternative for those who would otherwise require hospital care, providing comfortable living arrangements, along with full-time care and support from trained caregivers and registered nurses (JLL, 2023).

As mentioned above, Aotearoa New Zealand's ageing in place strategies are thought to have been largely successful, with evidence that the provision of home and community support services (such as cleaning, cooking, and personal and respite care) has been helping older New Zealanders to age in place (Moore et al., 2024). New Zealanders have been delaying entry to residential care and, when they do, they enter those facilities with higher needs than in the past. Around half the population aged 85 years and over live at home with home care support, while another 28 per cent live in residential care (Health New Zealand, 2024).

Health New Zealand is responsible for funding residential care services for older people, and contracts rest home or hospital owners to provide long-term residential care to residents who are eligible (Health New Zealand, n.d.).

Since the 1990s, Aotearoa New Zealand's aged residential care sector has been fully privatised, with no remaining government-run facilities. Sixty per cent of the aged care sector (around 24,000 beds) is provided by charitable trusts, not-for-profits, religious institutions, or are family and privately owned. The remaining 40 per cent (16,000 beds) is provided by large private companies – the so-called 'big six': Ryman, Metlifecare, Summerset, Bupa, Oceania, and Arvida (Aged Care Association, 2025; Aged Plus, 2023).

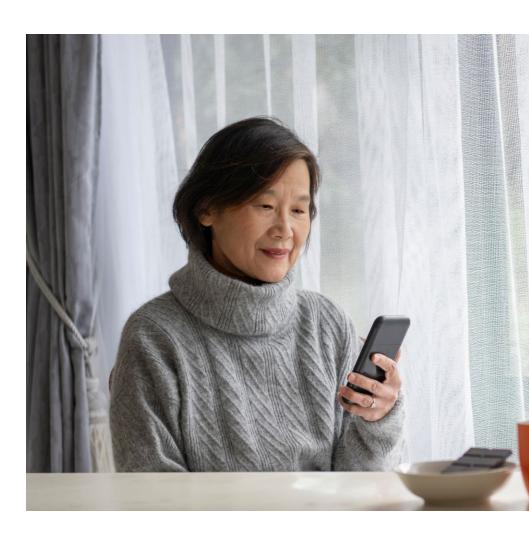
There is a shortage of beds, especially in some locations, and this is expected to get significantly worse

A report released by Health New Zealand last year highlighted major concerns for the future of Aotearoa New Zealand's aged care sector (Moore et al., 2024). Various future demand scenarios were modelled for the report: demand may continue to grow in line with current trends, or it may reduce slightly (proportionally) as people live longer and healthier lives. If people are supported to live at home for longer through increased support from home and community support services this will also impact the level of demand. Under all these scenarios however, there will be substantial growth in demand for aged residential care beds.

A review of aged care funding and service models undertaken for Health NZ in 2024 (Moore et al., 2024) identified 5 key issues for the sector:

- Aged Residential Care and Home and Community Support Services are under-funded.
- 2. The funding models used to distribute funding to the sector are no longer fit for purpose.
- 3. There are material ethnic inequities in accessing aged care services.
- 4. The aged care sector continues to face significant workforce pressures.
- 5. Issues with aged care are exacerbated in regional and rural Aotearoa New Zealand.

Modelling for the report predicted growth in demand of between 40 and 84 per cent by 2039/40 compared with 2022/23 (Moore et al., 2024). The report concluded that if historic building rates continue, there could be a shortage of almost 12,000 aged residential care beds by 2032. This would be a significant shortfall, with serious implications for those needing care.



THERE COULD BE A SHORTAGE OF ALMOST

12,000BEDS BY 2032



THE WAITING TIME FOR AGED CARE VARIES FROM

82 DAYS IN MIDCENTRAL, TO

219 DAYS

ON THE WEST COAST

Future shortages will compound existing issues with access and funding. There is already significant regional variation in provision, meaning residents in some regions experience barriers accessing care. As one example, the number of beds per 1,000 people aged 85+ ranges from 149 in Northland to 272 in Canterbury. Similarly, the waiting time for high-priority individuals being admitted to an aged residential care facility varies significantly, from 82 days in MidCentral

THERE ARE

272

AGED CARE

BEDS PER 1,000 PEOPLE AGED 85+ IN CANTERBURY, BUT ONLY

149

PER 1,000 PEOPLE IN NORTHLAND

to 219 days on the West Coast. The proportion of high-priority individuals admitted to a facility within 12 months of being assessed as requiring care has fallen steadily since 2016/17 (Moore et al., 2024).

Concerningly, some population groups are less likely to receive a home care assessment, home and community support services in their home, or to move into a facility when they cannot be safely cared for at home. Māori, Pacific, and Asian populations are much less likely to be admitted to a facility than New Zealand Europeans for example (Moore et al., 2024).

The report found that while the proportion of older people utilising aged residential care services is declining, the severity of health issues faced by those who enter a facility is likely increasing, with significant increases in dementia care beds, in particular.

The lack of aged care facilities has follow-on implications for hospitals, which are often forced to keep high needs older patients on a hospital ward for weeks or months before they can be discharged to a care facility – a problem known as 'bed blocking' (Morrah, 2024; Moore et al., 2024).

Bed blocking is extremely inefficient given that aged care facilities cost the tax payer approximately \$180 per day, compared to hospital care, which costs approximately \$1,000 per day (Hartwich, 2025). Even cheaper is providing sufficient care for people in the home as long as possible. In 2022, Health New Zealand paid on average \$65,000 per annum to keep a subsidised client in a rest home, whereas the average cost per client for home care support service delivery was approximately \$7,400 (Moore et al., 2024).

In addition to the shortage of facilities, access to an aged residential care facility has unfortunately increasingly become linked to a resident's ability to pay, creating equity issues (Aged Care Association, 2025). According to the Health New Zealand report (Morrah, 2024), there has been a marked shift by providers towards offering premium rooms (which have unregulated prices),

with 43 per cent of residential care residents now paying additional fees for premium rooms.

Some individuals struggle to access beds, as they cannot afford premium charges and, in many areas, no standard beds are available. The situation is especially dire in rural and low-income communities, forcing residents to leave their homes and support networks when they move to care homes (Aged Care Association, 2025; Quinn, 2025).

High needs dementia and psychogeriatric care residents are waiting, on average, nearly six months to be admitted to an aged residential care facility after being assessed as high priority. With a rapidly ageing population, it is expected demand for these care beds will increase still further into the future, with the sector's lack of beds and staffing causing significant issues (RNZ, 2024).

Many facilities struggle to pay for basic maintenance, much less build new capacity

As noted earlier, Aotearoa New Zealand's aged residential care sector is fully privatised. Many providers, particularly those that are rural, community-based, or not-for-profit, face financial challenges with ageing infrastructure and limited capital returns (Aged Care Association, 2025). These providers also experience higher operating costs (because they are smaller) and struggle to attract clinical staff.

NGOs often struggle with limited and unstable funding sources, and financial pressures impact their ability to provide consistent and comprehensive support. Many care homes are unable to fund basic maintenance, much less upgrades or capital works to increase capacity. As a result, providers are not building new facilities at the rate Aotearoa New Zealand requires (Moore et al., 2024).

While service providers receive funding for each resident, the allowances set by the government are reported to cover only a portion of the total costs to the providers. The model relies heavily on an average pricing approach and there is a lack of transparency in how pricing is set (Moore et al., 2024).

The Aged Care Association (2025) estimates that there is a 15 per cent shortfall between the maximum contribution payment provided by Health New Zealand and actual costs to provide the care needed: "Over the last few years, due to the inadequacy of funding, a growing number of providers have had to cover these losses by charging what is referred to as a 'premium' – this can range from \$10 per day to hundreds of dollars per day" (Aged Care Association, 2025). Some care providers have also started to require a large lump sum payment to secure a spot in their facility, in addition to the daily charge.

Experts in Aotearoa New Zealand have called on the government to be more transparent around how pricing is set, and to match resources to needs (Moore et al., 2024). Commentators point to recent reforms in Australia, where





a package of changes was introduced in 2025, with bipartisan support, to respond to Australia's ageing demographics. The package includes a \$4.3 billion investment in home support, changes to increase funding and improve transparency (including a higher maximum room price, indexed over time), and new laws to protect older people in care (Jamal, 2024; Albanese, 2024).

Also in Australia, the Aged Care Capital Assistance Program has recently been introduced (Australian Government, 2025). This provides grants to build, extend, or upgrade aged care services or to build staff accommodation in areas where older Australians have limited or no access. The program is aimed particularly at those in rural and remote areas, Aboriginal and Torres Strait Islander communities, those at risk of becoming homeless, and those with complex needs, such as dementia. Aged care providers have called for a similar infrastructure grant to be established here, aimed at small, regional, or charityrun aged care facilities, arguing that this would help them upgrade to allow higher levels of care (Quinn, 2025; Aged Care Association, 2025).

Without funding that matches actual need, alongside incentives to build new facilities that provide equitable access across the whole country, the only other alternatives will likely be to increasingly raise thresholds for accessing care. This may be possible to some extent with further investment in home support, including technological solutions such as telehealth. However, that will only be part of the picture. Assessing and proactively responding to infrastructure needs in the aged care sector will be essential to support the country's ageing population.

HOSPITAL CARE

\$1000 PER DAY AGED CARE FACILITIES

\$180PER DAY

IN-HOME CARE SUPPORT SERVICES, AS LITTLE AS

\$20 PER DAY

Home and community support services allow people to stay at home longer but are underfunded

People ageing at home and entering care later can be a sign of things going well. Equally, it can reflect gaps in the system. As noted, one concern that has been raised is that people are now entering residential care later and later, not because they are better able to cope at home alone, but due to funding constraints and a lack of available beds. Keeping people at home for longer is only sustainable if it can be done healthily, safely, and in socially connected ways. Gaps in the homebased care model have been identified as a barrier to this (Moore et al., 2024: Ellingham, 2025).

Over the past several years, the proportion of those aged 80+ receiving an in-home assessment of their health needs has been steadily declining. There is also substantial regional variation in the hours and levels of care being received in the home. As one example, clients in the Wairarapa receive an average of 1.5 hours of care weekly, while those in Whanganui receive 3.9 hours (Moore et al., 2024).

Home and community support services are struggling to attract and retain staff, with an 8 per cent decline in employees over the past two years. A recent government review identified that funding levels for home care support are significantly too low, with providers reporting that they are struggling at current funding levels to provide adequate care levels to clients (Moore et al., 2024). Employees point out that they are among Aotearoa New Zealand's lowest-paid, receiving a maximum of around \$29 an hour. In addition, home and community support workers use their own vehicles to travel between iobs and are reimbursed at an amount significantly less than the Inland Revenue Department recommends for personal-vehicle use at work (Ellingham, 2025).

Workforce and funding issues in home and community support services must be urgently addressed. Care

in the home is significantly cheaper than aged residential care. Supporting and adequately funding home and community support services will save significant money downstream by reducing the requirement to invest public funds in new aged care beds.

"There will be a shortage of aged care beds in the short-, medium- and long-term, unless the model is redesigned. This is particularly true for non-Big 6 operators, as they have little incentive to invest in their aged care beds, whether it is an upgrade, an extension to existing facilities, or a new build."

Tracey Martin, CEO, Aged Care Association (JLL, 2024)

What about retirement villages?

As noted earlier, retirement villages are distinct from aged care facilities in that they are promoted as a 'lifestyle choice' and typically aimed at a younger demographic, with fewer health needs. Some retirement villages include subsidised aged care beds, and some do not.

Retirement village units are not being built at the required rate to meet demand. According to a recent market review (JLL, 2024), 2,298 units were completed in the year ending 31 December 2023. Although this was higher than the five-year average (1,913 units per annum), the report predicted an estimated supply shortage of 8,367 units by the end of 2033. JLL (2023) estimates that in addition to the units currently under development as of 2023, an additional 932 units would need to be built every year, for each of the next 25 years, for the industry to meet its demand by 2048.

"Ensuring Aged **Residential Care** providers are incentivised to make efficient investments in the care of older people is essential for maintaining the wellbeing of elderly residents and sustaining a supportive and economically viable care infrastructure. The results of our analysis show that the current bed day rates will be creating financial instability for many providers."

(Moore et al., 2024)

RECOMMENDATIONS

- Urgently address affordability and availability issues in the aged care sector, particularly in the less wellserved regions. Focus on ensuring equitable access to standard residential aged care beds for those with low financial means.
- Introduce targeted infrastructure funding to address capacity shortages, especially in rural, regional, or low-income areas, as has been done recently in Australia.
- Introduce evidence-based and transparent funding models for aged care, to ensure existing providers can both adequately maintain services, and increase capacity.
- Adequately fund home care support services and other home supports (such as home maintenance, lawn mowing, and safety equipment) to allow people to stay at home longer and to reduce demand for aged care accommodation.



Supporting healthy ageing and functional ability improves quality of life for older people, and reduces downstream demands on the health system (Ministry of Health, 2024). The health system plays a key role in enabling healthy ageing by addressing the determinants of health, promoting wellbeing, and providing primary and community healthcare services, including aged residential care services, hospital-based services, and palliative and end of life care.

The growing and ageing population is expected to increase demand in health care, with upwards cost and workforce pressures across the whole system (Health and Disability System Review, 2020). A challenge for the health system is to meet this demand, improve wellbeing and reduce health disparities, while ensuring the fiscal sustainability of the health system (Ministry of Health, 2024).

In 2021, New Zealanders aged over 65 used over 42 per cent of total health services despite making up just 16 per cent of the population. Projections suggest that by 2051, 63 per cent of all public health services will be used by those over 65 years of age (Yadav, 2021).

Older people use a significantly higher proportion of health services than younger people: per-person health spending for a 75 year old is about seven times higher than for a 40 year old (Mitchell, 2025), and the average 85 year old uses as much as 16 times more healthcare than the average 40 year old (Yadav, 2021).

When it comes to planning health infrastructure based on need, the significant difference in health needs at different ages is particularly important. Population projections at both central government and local government level must calculate the number of people of each age expected to be living in each area, so that areas are not 'caught short' in terms of service provision.



A report by Yadav (2021) points out that innovations such as advancements in health technology and improved efficiency in surgical procedures can alleviate some anticipated strain on the health system and help keep government spending in check as the population ages. However, the country will nevertheless need to spend more proportionally on the healthcare workforce, specialist services, and related health infrastructure (hospitals, and health clinics) in the future (Neven, 2024). This will place increasing fiscal strain on a country with a decreasing proportion of working-age citizens.

We are not meeting current demand

Hospitals are already running at very high capacity in Aotearoa New Zealand, with high levels of overcrowding and bed blocking, and long wait times in emergency departments (Morrah, 2025). According to the New Zealand Infrastructure Commission (2025), Aotearoa New Zealand's health infrastructure spend is below average per capita relative to comparator countries. Aotearoa New Zealand has a relatively low number of hospital beds (although they note that this may reflect variation in how countries deliver healthcare).

As one example, Queenstown's Lakes District Hospital was built in 1988 for 4,500 people. Its 22 beds are no longer enough for the nearly 80,000 people living in Central Otago and Queenstown Lakes (Todd, 2025). Health New Zealand's 10-year health infrastructure plan released in April does not mention any plans for Queenstown Lakes or Central Otago beyond committing to a new rural health hub in the wider 'southern' region (Todd, 2025).

There are regional disparities in care in Aotearoa New Zealand, with doctors working in rural communities reporting their patients are dying at higher rates from preventable causes simply because of where they live (Hill, 2024; Warr, 2024). Almost one in five New Zealanders live in rural communities, with a greater percentage of older people and Māori living in rural areas than urban areas.

Rural communities face additional geographic, distance, and cost barriers to access services, and have reduced access to screening programmes (such as for cancer, diabetes, and cardiovascular disease) compared to their urban counterparts (Health New Zealand, 2024). This is particularly concerning given the higher proportion of older people living in rural areas in comparison to better-serviced large cities.

We do not appear to be planning strategically to meet increasing health needs in areas that are rapidly ageing

In Aotearoa New Zealand, hospital investment surged between 1945 and the mid-1980s – initially to accommodate rapid population growth and later to improve the quality of existing facilities (New Zealand Infrastructure Commission, 2025).

Over the past decade, however, hospital investment has slowed to near-historic lows. The New Zealand Infrastructure Commission (2025) expects there will need to be a significant increase in investment in the coming years – first to renew much of the infrastructure built during the postwar boom, and second, to respond to increased demand caused by a rapidly ageing population. The New Zealand Infrastructure Commission (2025) points out that technological advances and more efficient delivery systems could help moderate this demand. but the extent of their impact remains uncertain.

Health New Zealand is responsible for more than 1,200 buildings on 86 campuses, ranging from large hospitals to smaller health care facilities (Health New Zealand, 2025). The agency's Infrastructure and Investment Group is responsible for leading health investment by planning, prioritising, and monitoring capital infrastructure projects, and standardising the way projects are designed and delivered across the health system (Health New Zealand, 2024a).

BY 2051.

63%
OF ALL PUBLIC
HEALTH SERVICES

WILL BE USED BY PEOPLE AGED 65+ (Yadav, 2021)



The Infrastructure and Investment Group has developed a number of planning documents including a Health Infrastructure Plan (HIP) – the first national plan to set out long-term health infrastructure priorities. The HIP details a pipeline of investments in physical infrastructure over the next 10 years and will "provide Health NZ with a consistent approach to how and when we invest in public health infrastructure across the country based on clinical service planning and equitable healthcare access" (Health New Zealand, n.d.a).

Meanwhile, the New Zealand Infrastructure Commission's Draft National Infrastructure Plan (2025a) and accompanying Infrastructure needs analysis (2025) set out projections for the average annual investment required to keep up with a changing and ageing population at the country level:

"We expect investment demand for hospital infrastructure to increase due to the need to renew and replace ageing hospitals and expand hospital services to serve the growing needs of an ageing population. While there are options about how to deliver additional hospital services, central government is expected to fund these through taxes. Hospitals are also seen as crucial in addressing health inequities between Māori and non-Māori, with Māori facing higher rates of chronic disease, injury and lower life expectancy."

While there is apparently significant planning happening in this space currently, the first iteration of the Health Infrastructure Plan is short on detail, and the work done thus far does not appear to include population modelling and projections to inform a sense of future infrastructure needs across the country, much less region by region. Significantly more work will need to be done to consider in detail how the country intends to meet changes in demographic demand. Given how long it takes to build new infrastructure, this thinking will have to be done proactively and very quickly to meet changes in future demand.



"There are many ways to address changing health needs and growing demand. Building infrastructure where our communities are growing and ageing is one part of the puzzle, but we must look to new models of care – including virtual and more digitally-enabled care – and changes to where we deliver care to have adequate capacity for Aotearoa New Zealand. This also means exploring shifting care closer to home and setting up our system so that fewer people need to go to hospital in the first place."

Can digital technology and telehealth help reduce infrastructure spend?

Telehealth has been put forward as one solution to Aotearoa New Zealand's ongoing health-care crisis, which is particularly stark in rural regions (Hill, 2024; Eggleton, 2024). Telehealth is the use of information and communication technologies to deliver health care when patients and care providers are not in the same physical location. For example, illnesses can be diagnosed and treatment provided via secure video conference (Health New Zealand, n.d.b).

Global demand for digital and telehealth services is growing as technology improves (WSP, 2023), and this may impact the future shape of the country's hospitals and how they are built. With healthcare becoming more virtual and distributed, there may be less need for large waiting areas and floor upon floor of rooms in hospitals, for example. It may be that the future of healthcare is to have a combination of smaller, more distributed health hubs, serviced by generalised medical staff, but complemented by telehealth and traveling specialists.

The New Zealand Health Plan 2024–2027 (Health New Zealand, 2025a) includes enabling access to services that are closer to home, and expanding the use of digital, telehealth, and prevention services to "improve connectivity and continuity of care". Telehealth can expand access to care, reduce wait times and streamline services. It can provide relief to overworked rural doctors and can be more convenient for patients.

However, there are also negatives to moving care online. Among other downsides, research shows telehealth can be disruptive to continuity of care – a feature of healthcare that significantly lowers mortality. It can also put a burden on other parts of the health system – for example on rural nurses who must manage highly complex situations without the support of a doctor (Eggleton, 2024). Increasing use of digital technology and telehealth also increases the risk of a digital divide in poorer communities (Davis, 2024).

The health system is under strain and struggling to meet current demand, much less the demands of the future. Increased use of digital technology and telehealth will be an essential component to ensuring everyone can access timely and appropriate care in the future. However, this will have to be done carefully. It will also only form part of the picture – there is no escaping the need to provide significantly more physical health infrastructure – and upgrade existing facilities – over the next decades.





"Many staffing ratios were established in a predigital era, and it is more than possible that digital, virtual, remote and online sources, together with Aladvances, could reduce the amount of administration and paperwork, increase the quality and quantity of patient contact and care—and reduce the number of personnel required."

(Davis, 2024)

Caring for the elderly with robots – a possible solution for Aotearoa New Zealand?

As populations age and workforces shrink, many governments are turning to technology to fill care gaps. Japan is facing a particularly steep demographic shift: by 2050 the cohort of those aged 65+ will be roughly the same as the cohort of working-age adults (Wright, 2023).

To deal with a shortage in care workers and rising care costs, Japan has invested heavily in developing technology for care robots. Devices like Robear, developed in 2015, aim to substitute labour-intensive care work with robotic assistance – either through physical aid or emotional companionship.

However, despite two decades of development, robotic care has not been widely adopted to help with everyday elder care in Japan. According to one review, the take up of robots by care institutions has been low and when robots are introduced, they often fall into disuse. Many require considerable maintenance, supervision, and explanation, ultimately adding to caregivers' workloads instead of relieving them (Persson, et al., 2021; Wright, 2023).

Others are more optimistic about the future of robotics for care. The AIREC robot is capable of helping a person sit up or put on socks, cook scrambled eggs, fold laundry, and perform some other useful tasks around the house. However it is unlikely to be ready for use in nursing-care and medical facilities until around 2030. A robot that has to work with human beings needs to be significantly more complex than one that works on the factory floor, as it needs to coordinate its movement with others, and safety becomes a major issue (Takenaka, 2025).

While humanoid robots may (or may not) be more helpful for care work in the future than the present, other types of technology can assist with care — including sleep sensors for example. Placed under mattresses to monitor sleep quality, these allow nurses to cut back on their rounds at night (Takenaka, 2025). Investing in research and technology to help support care work will be an important part of preparing for the future.



Health infrastructure is only part of the picture

While this report focuses on infrastructure, there is clearly a raft of other measures that need to be taken to prepare the health system to adapt and respond to an ageing population. These include, in no particular order (Health and Disability System Review, 2020; Ministry of Health, 2016):

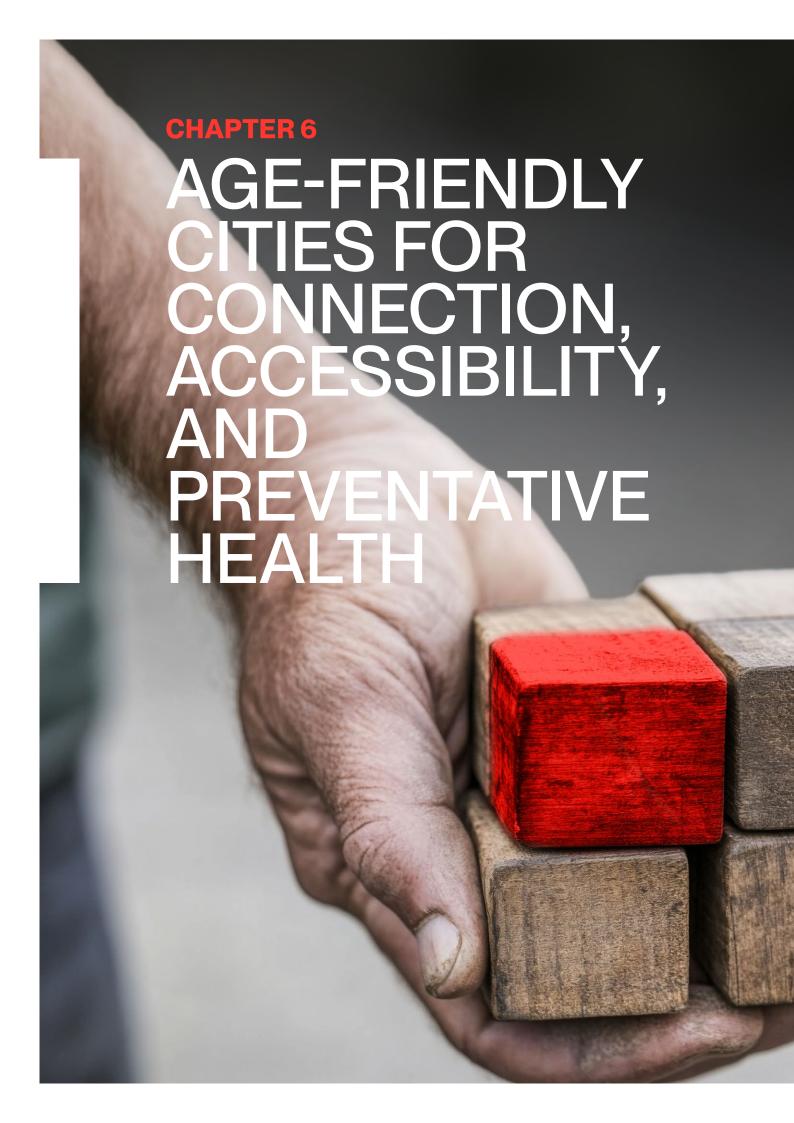
Strengthening primary and community care. Shifting care closer to home, by expanding services (such as population health, care coordination, and homebased support) delivered in the community, so older people can avoid unnecessary hospital visits.

- A stronger preventative care focus, and improving integrated care models (better connecting GPs, specialists, pharmacists, and social care providers).
- Increasing funding for in-home carers and personal care hours so people can stay independent for longer (as discussed earlier).
- Expanding the use of telehealth and other technological innovations.
- Streamlining discharge planning to ensure smooth transitions from hospital to home or residential care.



RECOMMENDATIONS

- Undertake needs assessments for health infrastructure such as hospitals based on projected population figures at country, regional, and local levels. Proactively and strategically plan investment accordingly, ensuring an equity focus – particularly in rural and underserved areas.
- To reduce future strain on health infrastructure as much as possible, expand telehealth and in-home services for older people (which are extremely cost-effective), enhance preventative care, and invest in public health to reduce health disparities.



Another key aspect of the Better Later Life Strategy (Office for Seniors, 2019) is the Age Friendly Aotearoa New Zealand programme, led by the Office for Seniors at the Ministry for Social Development. Aotearoa New Zealand became an affiliate to the World Health Organization's Age-friendly Cities and Communities programme in 2018.

The programme provides guidance and tools to communities wishing to become more age friendly and helps cities and communities to work in partnership with older people to adapt structures (buildings, roads, pedestrian spaces, etc) and services to meet their needs. It includes recommendations about improving public transport accessibility, footpaths, cycle lanes, and crossings designed and maintained to be safe for older people and to encourage active transport (World Health Organization, n.d.; World Health Organization, 2023).

Since active ageing is a lifelong process, an age-friendly city is not simply "elderly-friendly." Accessible buildings and streets support the mobility and independence of people of all ages, including those with disabilities. Age-friendly cities aim to be leafy, safe, and accessible, with compact neighbourhoods that provide easy access to essential services, and reduce reliance on transport by being walkable.

Ultimately, making cities and towns more liveable benefits all generations. Safe neighbourhoods encourage children, young women, and older residents to spend time in the community. At its heart, an age-friendly environment – both social and physical – is about creating conditions that enable participation and wellbeing for everyone (World Health Organization, 2023).

Consistent with literature on the social-ecological determinants of health, most research suggests residence in an age-friendly city is also associated with better self-rated health, functional ability, mental health, and quality of life for people of all ages (Annear & Hyde, 2025).

There is growing recognition that the way we design and plan our built environment is one of the most powerful levers for improving health outcomes (Robak, 2019). Aotearoa New Zealand faces significant projected increases in chronic conditions such as diabetes, cancer, and obesity (NZ Medical Journal, 2025; Teng et al, 2024; Health New Zealand, 2024), and where people live is one of the most important determinants of health (Robak, 2019).

Older people with lower-incomes, already at greater risk of poor outcomes, are further disadvantaged by neighbourhoods that lack the same quality of infrastructure, public spaces, and amenities found in wealthier areas.



Yet research shows that when lower-income communities are designed to the same standard as higher-income ones, much of the health gap disappears (Robak, 2019). This points to an enormous opportunity for planners, engineers, architects, and landscape architects to design places that actively prevent illness and promote wellbeing.

Physical and social environments shape health through multiple pathways: opportunities for physical activity, exposure to clean air, access to green space, and the ability to connect socially. People living in walkable neighbourhoods, with safe cycling routes or good public transport, average 15 per cent more exercise, reducing their risk of chronic disease (Public Health Ontario, 2017).

Age-friendly public spaces can prevent falls, the leading cause of injury among older New Zealanders (Osteoporosis NZ, n.d.). Prioritising design for vulnerable groups – older people, disabled people, and those in financially unstable circumstances – is especially important. Commitments to mixed-use, 'live-work-play' neighbourhoods can deliver the greatest gains for lower-income areas, where health disparities are most pronounced and where better design could reverse long-term trends in preventable illness.

Many councils, including Hamilton, Nelson, New Plymouth, Auckland, and Napier have developed age-friendly strategies and action plans in the past few years, and participation in the national Age-Friendly Aotearoa New Zealand Network has grown from 15 cities in 2022 to 35 in 2025 (Office for Seniors, 2025).

Although there has been some take up of the principles of age-friendly cities around the country, Annear and Hyde (2025) identify what they consider to be significant gaps and limitations in engagement and implementation of the programme: "Despite incremental increases in the number of cities engaging with the local and international networks, challenges remain in translating commitments into measurable and impactful outcomes at a sub-national level."



The authors conclude that cities and districts should establish dedicated funding and clear accountability mechanisms to prevent perceptions of 'grey washing' – where existing public works are repackaged as age-friendly innovations without substantive new investment or policy changes (Annear & Hyde, 2025).

Some examples of agefriendly features

An age-friendly city encourages active ageing by optimising opportunities for health, participation, and security to enhance quality of life as people age. In practical terms, an age-friendly city adapts its structures and services to be accessible to and inclusive of older people with varying needs and capacities. Having green spaces is one the most commonly mentioned age-friendly features in international research (World Health Organization, 2007).



Singapore has implemented 'silver zones' with lower speed limits and longer crossing signal times to cater for older people (Mitchell, 2025).

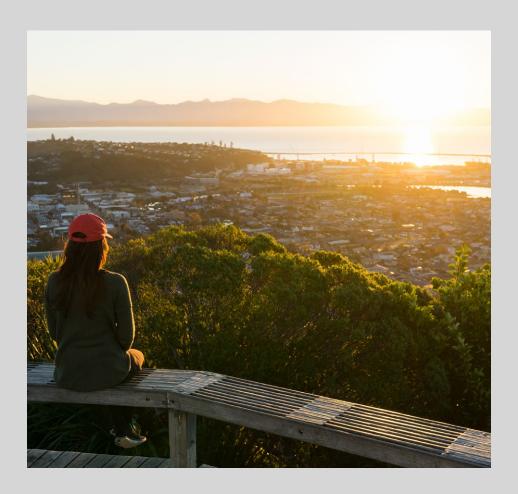
The World Health Organization points to a broad range of characteristics of the urban landscape and built environment that particularly contribute to age-friendliness (World Health Organization, 2007):

- Regular seating areas. Waypoint seating allows older those with disabilities (and young families) to travel further on foot.
- Age-friendly pavements (well-maintained, smooth, level, non-slip, and wide enough to accommodate wheelchairs, with low curbs that taper off to the road).
- Pathways that are clear of any obstructions and pedestrians having priority of access.
- Safe pedestrian crossings, with enough time at the lights for older people to cross.
- Well-designed roads, including appropriately placed physical structures, such as traffic islands, overpasses, or underpasses, to assist pedestrians to cross busy roads.
- Accessible public buildings.
 Features that improve accessibility in public buildings include elevators, escalators, ramps, wide doorways and passages, suitable stairs (not too high or steep) with railings, non-slip flooring, rest areas with comfortable seating, adequate signage, and public toilets with disabled access.
- Cycle paths and space for electric scooters that are separate from footpaths.
- · Adequate public toilets.
- Security and safety, including good street lighting, regular police patrols, enforcement of by-laws, and support for community and personal safety initiatives.
- · Adequate disability car parks.
- · Clear street signs and good lighting.

'Nelson - A City for All Ages'

By 2048, nearly one-third of Nelson's population is expected to be aged 65 or older (Stats NZ, 2024). The City for All Ages strategy, endorsed by Nelson City Council in December 2021, was developed by a community steering group with broad community, stakeholder, and agency input. It builds on the idea that the community ageing is not something to merely adapt to but something that can offer benefits. Older residents are seen as valuable contributors to community wellbeing, culture, economy, and civic life (Our Nelson, 2021).

The strategy covers several domains: wellness and health, social connection, housing, mobility/transport, information access, and outdoors/public spaces. Key infrastructure-related elements include designing walkways with more rest points, ensuring public transport and pedestrian crossings are safe and usable by people with slower mobility or sensory impairments, increasing access to toilets in public or commercial facilities, and developing active transport strategies (World Health Organization, 2022). Housing is another major focus. The plan aims to understand accommodation needs for older people, so housing design and location can support ageing in place (Our Nelson, 2021).



Insight from WSP

THE 30-MINUTE RURAL COMMUNITY





Rachel Lawson Head of Planning WSP N7

As Aotearoa New Zealand's population ages, rural and provincial areas are becoming home to more people in what is often called the Third Age - that phase of life after work and family commitments, when health, freedom, and opportunity are still in plentiful supply. These regions, already popular with retirees, are well placed to embrace aging not as a problem, but as a chance to build stronger, more connected communities.

One idea gaining traction is the 30-minute rural community (WSP, 2023b). This is a simple but powerful concept: making sure essential services – such as healthcare, education, shops, and social spaces – are within a 30-minute journey. For the 835,000 people living in New Zealand's 389 rural settlements, that could be a game-changer.

Rural areas tend to have older populations than cities (Stats NZ, 2024b). That is partly because they attract people looking for a quieter lifestyle, and partly because younger people often head to urban centres for work or study. But with age comes wisdom – and a whole lot of potential. Older adults bring energy, experience, and a strong sense of community. The challenge is making sure they can stay connected and supported.

Right now, many rural residents face barriers to accessing basic services. Transport is a big one (New Zealand Transport Agency, 2012). If you're no longer driving, getting to the doctor or the supermarket can be a challenge. Research shows that limited access to healthcare and social contact can lead to poorer health outcomes and increased isolation (Neville, 2019).

That's where the 30-minute rural community comes in. By creating 'hub towns' – small centres where services are clustered – we can make life easier for people in surrounding towns. Think clinics, schools, shops, libraries, and places to catch up. Add in better transport links, including ecofriendly options, and suddenly rural life becomes a lot more doable for everyone.

Local enterprise plays a part too. Many older adults are keen to contribute – whether through volunteering, mentoring, or running small businesses. Supporting local shops and services not only boosts the economy, it keeps people engaged and gives communities their character.

Of course, making this happen takes teamwork. Councils, iwi, community groups, and businesses all have a role to play. It starts with understanding what people need and what assets already exist. Marae, community halls, and schools make useful service hubs. Digital infrastructure is vital too, especially for telehealth and remote work.

The benefits are clear. Better access to healthcare. Less time spent travelling. More chances to connect. And communities that are vibrant, resilient, and welcoming – whether you're 25 or 75.

The Third Age is a stage of life full of possibility. And rural Aotearoa, with its landscapes, people, and spirit, is the perfect place to make the most of it. The 30-minute rural community is more than a planning idea — it's a vision for living well, together.

Dealing with population decline

In the future, a number of Aotearoa New Zealand towns, regions, and neighbourhoods will be forced to grapple with population decline, alongside hyperageing populations. These areas will not be able to consistently rely on growth to fund new infrastructure (examples may include the districts of Buller, Ruapehu, Westland, Waitomo, and Gore). Some difficult decisions may therefore need to be made about where to focus services, infrastructure, and resources. It is instructive to look to other places around the world that have had to grapple with similar problems.

Japan has been facing two major demographic challenges simultaneously: a rapidly ageing population and a shrinking overall population. These trends have led to declining demand for housing in some areas, rising infrastructure maintenance costs, and underused public services, particularly in rural regions and smaller towns. Rather than continuing to support declining settlements indefinitely, Japanese policymakers have embraced the idea of 'compact cities' to make urban areas more dense, walkable, and efficient. This approach concentrates housing, healthcare, retail, and public transport in central areas, so older residents can access essential services without relying heavily on cars. This policy allows governments to rationalise spending by reducing the need to maintain roads, water pipes, and other infrastructure across a sprawling geographic footprint (Sakamoto et al., 2021; Yoon, 2020).

In practice, this has meant incentivising people to move back into city centres or public transport-accessible neighbourhoods, rather than allowing urban sprawl to expand. In some cases, zoning has been relaxed to allow more mixeduse development, combining housing, clinics, shops, and community spaces. The goal is to create vibrant, high-density hubs where older residents can live independently for longer, stay socially connected, and access health services easily — while making city management more financially sustainable in the face of a shrinking tax base. This model is increasingly seen as a way to turn demographic decline into an opportunity for urban regeneration.

Flint, Michigan, on the other hand, has faced more controversy in the way it has dealt with a sharp population decline beginning in the late 20th century. With a shrinking population but the same geographic footprint, the city struggled to maintain infrastructure such as roads, water pipes, streetlights, and vacant housing. The mismatch between infrastructure capacity and the smaller tax base led to spiralling costs and higher service delivery expenses per resident. These conditions prompted city leaders to consider 'shrinking' the city – consolidating services and encouraging residents in sparsely populated areas to relocate closer to denser neighbourhoods, where services could be delivered more efficiently.

The city explored strategies often referred to as 'rightsizing' or 'managed decline'. These included demolishing vacant houses, repurposing land for green space, and concentrating services such as policing, fire services, and





infrastructure maintenance in denser neighbourhoods. Some proposals involved using federal funds to offer incentives for voluntary relocation from under-populated areas. The goal was to reduce infrastructure maintenance costs, improve service delivery, and stabilise neighbourhoods.

Many of these plans were controversial, with commentators highlighting the disproportionate impact on historically neglected, minority, and low-income neighbourhoods by decommissioning services and infrastructure (Morckel, 2020). A significant finding from the process was the importance of community engagement throughout the process of 'right sizing'. Researchers emphasised the importance of committing to an equity-based approach that focuses on revitalising areas for poor and minority ethnic groups, as they are worst affected by such policies (Sadler et al, 2021).

Aotearoa New Zealand's bigger cities are not yet at the same point in their demographic journey as either of these two examples – the country's larger cities are still growing in size. However, the best time to plan for the future is well in advance. Urban planners recognise the importance of promoting policies that favour urban density over sprawling suburbs that cost more to service (for roading, lighting, and water for example) (Sense Partners, 2024). Planning for cities to go 'up' rather than 'out' will minimise future problems (and costs) in this regard.

Meanwhile, some smaller rural towns in this country are both shrinking and ageing - albeit on a much smaller scale than Japan. As infrastructure costs rise and the taxpayer base shrinks, hard decisions may have to be made in the future about how to prioritise infrastructure investment in some regions. Decisions may include whether to proactively move people to more 'central' locations where the cost of essential services can be shared, or to simplify the services that can be afforded. Either way, the key lesson from other countries will be to ensure good community involvement and an equity focus in any decision-making process.

More accessible, walkable, connected cities require attention to zoning

Within district plans across Aotearoa New Zealand, every parcel of land has a specific zone that dictates the uses allowed on that property. The zoning system is designed to separate incompatible land uses and manage activities (Marshall, 2024). Typical zones that appear in District Plans include residential, rural, commercial, industrial. and special purpose zones. Residential zones, which are most relevant to this report, are areas designated for housing and related residential activities. They come with restrictions around density and rules controlling the bulk and location of buildings.

Current government policy supports liberalising zoning to enable more mixed-use development in urban areas, particularly near rapid transit and town centres, to increase housing supply and support walkable communities. The planning rules within these zones allow for a variety of uses, such as residential (detached houses, townhouses, apartments) alongside small commercial uses (cafes, retail, offices) within the same development or precinct.

Zoning can be used to encourage mixed-use areas (which better supports ageing in place) by creating specific zones like mixed housing suburban or urban zones. These allow for a combination of housing types and commercial activities within the same area. The Auckland Unitary Plan (Auckland Council, 2025) provides examples of this, with mixed housing urban zones enabling higher density housing and smaller-scale commercial activities, and business - mixed use zones integrating residential with primarily small-scale commercial uses. especially near transit routes.

Zoning reform is increasingly recognised as an important strategy to increase housing affordability and environmental sustainability.

It will also be important to ensure infrastructure including urban design, housing, health, and aged care work appropriately for the country's ageing population. Zoning reform has been happening at pace in Aotearoa New Zealand, marking a shift from urban form designated for predominantly single homes, towards higher density models that can include a range of housing sizes, and different types of development (Cheung et al, 2023).

The Resource Management Act 1991 currently governs management of the country's natural and built resources. The Government has plans underway to replace this legislation with two new Acts, moving from a single, broad system to a more focused one:

- The Planning Act will regulate the "use, development, and enjoyment of land", supporting housing and infrastructure development, and
- The Natural Environment Act will concentrate on the "use, protection, and enhancement of the natural environment".

The new system is intended to include a greater use of standardisation in zoning and planning rules. A single, unified set of national policy under each Act will be developed to provide clearer guidance and consistency for local government, including around land use zones.

Importantly, each region will be required to have a spatial plan, focused on identifying sufficient future urban development areas, development areas that are being prioritised for public investment, and existing and planned infrastructure corridors and strategic sites. Each territorial authority will be responsible for producing a combined plan that includes chapters on spatial planning, the environment, and planning. The government plans to introduce the Bills in Parliament in late 2025 and hopes to have them passed into law by mid-2026 (Ministry for the Environment, 2025).





Ensuring the new legislation is geared towards incentivising and planning for the country's changing and ageing demographics will be essential. Zoning is a flexible approach that can be adapted at any scale to further a broad range of goals. It can be effectively combined with values-based planning (Taylor Baines and Associates, n.d.), meaning it can be used to encourage outcomes that work for older people. Examples of urban form that could be considered and encouraged by more updated zoning and planning rules include policies that would:

- Incentivise a range of different housing sizes within new developments and infill housing, so older people who are downsizing can remain in their own neighbourhoods.
- Require regions to take into account population growth and ageing projections for their area when completing their spatial plans. For example, territorial authorities should be planning proactively to make adequate space for retirement villages and aged care facilities that are within easy reach of transport hubs and other services. Cities and towns should be thinking about how fast they are ageing, where their older populations will likely be living in the future, what services they will require access to (including health care, public transport, and so on), whether there will be sufficient housing of the right type to accommodate them, whether the streets are accessible, and so on.
- At the more granular level, local plans for transport, road crossings, parking, and so on should be considering longterm population trends. Will decisions made now have the right outcomes for the make-up of the area's demographics in the future?
- Ensure new housing developments include provision for retail, health services, and so on, rather than encouraging the proliferation of satellite neighbourhoods where a private car is required to access services.

Can social infrastructure and good urban design reduce loneliness for older people?

Loneliness is linked to mental and physical health issues such as depression, anxiety, heart disease, and reduced life expectancy. When loneliness is a byproduct of how we build and organise urban environments, it becomes a public health and urban design concern.

According to Stats NZ (2021), young people aged 15–24 report the highest levels of loneliness, while people aged 65+ in this country are the least likely age cohort to feel lonely. However, more than a third of people 65 or over do feel lonely at least some of the time.

Creating friendly streets and neighbourhoods with ample opportunity for connections to form spontaneously can help to mitigate the impact of loneliness (Walker, 2020). Qualitative research carried out by WSP Australia investigated the best ways to create more friendly neighbourhoods to tackle isolation, with proposed solutions involving access to shared parks and open spaces, public meeting places and vegetable gardens, active public spaces, street libraries, and more local shops (WSP, 2023a).

Research shows that social infrastructure, such as parks, pools, libraries, sports clubs, and community centres, can help foster connection and a sense of belonging. Physical gathering spaces provide opportunities for face-to-face interaction and shared activity, all of which are robustly associated with better mental health and lower risk of depression (Lindsay-Smith et al., 2018). In neighbourhoods with access to recreational or fitness facilities, older adults show fewer depressive symptoms, particularly when outdoor activity spaces are available for the 'oldest-old' (Mu et al., 2023).

Beyond reducing loneliness, social infrastructure contributes to sustaining quality of life in key transitions of later life (retirement, loss of partner, health decline, changes in living arrangements). Older people participating in leisure activities are more likely to report lower psychological distress, better social ties, and higher life satisfaction (Zhang et al., 2021). Ensuring sufficient, accessible, well-designed social infrastructure is therefore likely to be an extremely cost-effective component of public health and ageing policy.

Finally, a close correlation exists between loneliness and low income. Poverty can create barriers that can stop people easily forming and maintaining social relationships, through lack of access to transport, resources to socialise, and funds for recreational activities, for example. Older people on fixed incomes, or who have a disability or impairment are therefore particularly vulnerable to loneliness (Walker, 2020; WSP, 2023a). Reducing poverty is therefore also a key plank to reducing the risk of loneliness for older people.





Transport is important for active ageing

Aotearoa New Zealand is heavily reliant on driving, and is one of the most car-dependent nations in the world (Autofile, 2023). As New Zealanders age, they continue to be car dependent, but increasingly as passengers rather than drivers (Ministry of Transport, 2014). Driving gives older people independence, flexibility, and the ability to maintain social connections. Research consistently shows that losing the ability to drive is associated with increased social isolation, poorer health outcomes, and even earlier entry into residential care. For many, giving up their licence feels like losing control over their daily life (Liddle et al., 2024).

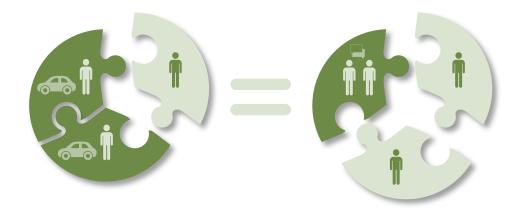
This heavy reliance on private vehicles means that when older New Zealanders can no longer drive, due to health issues, safety concerns, or licensing requirements, they can quickly become cut off from essential services. In many parts of the country, particularly outside the largest cities, public transport is limited or absent, and services such as shops, medical centres, and community activities are often spread out over large areas (Mollraith, 2023).

Even in cities, public transport can be infrequent, inaccessible, or poorly connected to the places older people need to go. Taxis and rideshare options can be expensive or unavailable, particularly in smaller towns. The result is a heightened risk of loneliness, missed medical appointments, and declining mental and physical health. Supporting older adults through this transition is therefore a public health and social wellbeing issue, not just a transport concern.

Recent Aotearoa New Zealand research found that one in three older drivers feel more isolated when they stop driving, and two in three are less engaged in social events as a result (WSP & AA, 2023).

Policy responses need to address both sides of this challenge. On one hand, there is a case for helping older New Zealanders to keep driving safely for as long as possible through initiatives such as regular driver refresher courses, vehicle safety checks, and road design improvements that make driving less stressful. On the other hand, we must also invest in alternatives: more frequent, accessible public transport; community shuttle services; and better pedestrian and cycling infrastructure that enables safe mobility without a car.

One in three older drivers feel more isolated when they stop driving, and two in three are less engaged in social events as a result.



Improving road safety will be essential as drivers age

Recent research commissioned by AA (WSP & AA, 2023) found that drivers over 70 have the fewest injury crashes on average per year of any age group. The good news is that as the population ages, this will tend to reduce crash numbers per driver. However, the proportional reduction in crashes over time will be overtaken by population growth in older groups – meaning there will be more crashes overall as time goes by (because there will be more people overall).

Significantly, too, older people are more likely to be seriously injured or to die in a crash (whether they are driving or not), because they are more physically fragile than younger people. Projections therefore show that without intervention, the country's ageing demographics will lead to a very significant 33 per cent increase in fatal and serious driver injuries by 2063 compared to 2020 (WSP & AA, 2023). A wide range of potential solutions has been identified to enhance road safety as drivers age (Figure 15).

33%:

PROJECTED INCREASE IN FATAL AND SERIOUS DRIVER INJURIES BY 2063.

Figure 15:

Insights into older driver safety and mobility (WSP & AA, 2023).

Infrastructure improvements and visibility

Lighting infrastructure

Be aware of deteriorating eyesight with age

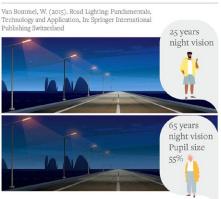
The eye's lens becomes cloudier and its pupil narrows with age so road lighting becomes of less help as we age.

Recalibrate road lighting for older drivers

Road lighting standards should be recalibrated so the older age-groups of drivers are better catered for.

Use adaptive LED Street lighting

The adaptive ability of LED lighting should be actively considered as a mechanism to assist older drivers.



Delineation

Use 2-second preview times at all times

All drivers should be able to see 2 seconds in advance under all circumstances, so they have this time to react.

Use & maintain reflectorised markings

Reflectorised markings should be the norm and excellent maintenance is of high importance.

Use a minimum of 150mm-wide reflectorised edgelines

Wide edgelines are either 150mm or 200mm wide and can be used in both urban and rural areas at the discretion of the Road Controlling Authority and their use should be actively considered.

Use high beam headlights whenever legal

High beam visibility is better than low beam visibility, implying that headlights should be on high beam whenever legal. The difference between low-beam visibility and high beam visibility in the dark increases with driver age. This indicates that auto high beam vehicles should be the vehicle of choice for older drivers.

Adopt profiled road markings for all weather conditions

All age groups benefit from road markings which are visible in wet and rainy conditions. Profiled markings have advantages to older drivers owing to their superior visibility in wet weather.

Signage

Use more 60+ year-old Reflectivity assessors

Retroreflectivity of signs is based on performance in New Zealand as assessed visually by mobile inspectors. Having inspectors of over 60 years of age where possible should be considered as it would improve recognition of the requirements of older drivers

Use 2-second preview times at all times

Preview times should be at least two seconds under all circumstances.

Use more of symbolic signs

Symbolic signs should be used wherever possible, the simpler the better.

Use as large text size as possible for non-symbolic signs

For signs using text, font size should be as large as possible.

Insights into older driver safety and mobility

Insight from WSP

POPULATION TRENDS SIGNAL RISE IN DRIVER INJURIES – BUT IT'S NOT INEVITABLE





Bill Frith
Research Leader
- Road Safety
WSP NZ



Jared Thomas
Technical Director Human Factors
WSP NZ

WSP research for the AA
Research Foundation (WSP &
AA, 2023) projects a 33 per cent
increase in fatal and serious
driver injuries by 2063, driven
by Aotearoa New Zealand's
growing and ageing population.
While this is cause for concern, a
range of road safety engineering
treatments could be implemented
now to protect drivers of all ages.

The projection comes from Bill Frith, WSP's road safety research leader, who used 2020 injury statistics and official population forecasts to model the likely scenario four decades ahead.

Another WSP finding highlights that older drivers – more fragile and prone to injury – report increased anxiety due to speeding, aggressive overtaking, and busier roads. They struggle most with glare, night driving on unlit roads, heavy rain, and complex traffic situations such as high-traffic intersections and right turns.

These anxieties are prompting some older drivers to stop driving earlier than necessary.

Bill and WSP technical director for human factors Jared Thomas advocate for a more forgiving transport system, starting with infrastructure improvements that benefit all drivers. While newer roads like expressways and bypasses are safer, urban roads require upgrades to better serve drivers, pedestrians, cyclists, and scooter users.

Improvements should include agefriendly intersections, moving to roundabouts, having good timings at lights, and better and brighter delineation of road signs and markings, says Bill.

"Our cities have road markings which tell drivers which lane to use, but many

are invisible when the road is wet. Road markings are often only visible just before an intersection where they can be covered by a queue. Remedying these issues is relatively straightforward and will benefit all drivers."

Beyond infrastructure, digital tools can also play a role. Jared suggests enhancing journey planning apps with route choice, time of day, and weather information. He also stresses the importance of involving older adults in road design.

"To help with cloudier, aged eyes, we need to increase the amount of light and reflectivity of road signs and markings. We should be having 60+ year olds take part in reflectivity assessments. We should start doing age-friendly road audits – involving older drivers in drive-throughs in poor visibility, wet, and busy conditions."

A WSP project in Australia applied this approach using a virtual reality driving simulator to redesign a complex intersection.

"Some of our best insights came from two older drivers who made wrong turns on a complex intersection. We were able to redesign it to make it agefriendly through optimised markings, road geometry and sign placement, which also saved \$2 million in capital costs," says Jared.

While the injury projection is sobering, Bill emphasises that it's not a fixed outcome.

"The important thing is to work to get the number of fatal and serious injuries trending downwards. Creating agefriendly roads will help. My greatest joy and privilege would be to watch the status quo not continue. But for that to happen, we need to be acting now."

Good public transport is key in age-friendly cities

International research suggests that older adults who live in denser neighbourhoods in larger cities with robust public transport systems are more likely to get out of the house, less likely to rely on cars, and more likely to make specifically social trips for shopping and dining. This effect is enhanced by proximity – those who live closer to public transport get out more and drive less than those who live further away (Lo & Mitra, 2025). In cities with good public transport, compact city designs encourage older people to be more active. In cities based on car usage, having a driver's licence is the dominant factor influencing older people's mobility.

To be age friendly, best practice for public transport accessibility means offering a range of options (public and private, such as buses, taxis. shuttles, and trains). To be used, public transport options must be affordable, reliable, and frequent (World Health Organization, 2007), and provide access to the right destinations. In Aotearoa New Zealand cities, public transport routes are often geared around commuter needs, into and out of the central business district, whereas this doesn't always fit the need to travel between suburbs to access services and shopping areas (Office for Seniors,

Other important features of agefriendly public transport include ensuring vehicles (buses and trains) are accessible, to make boarding and disembarking easy, with clear signage, priority seating, low floor access, wheelchair spaces, etc. Bus and train stops should include shelter, seating, and lighting, with sufficient stops with not too great a distance between them.

A review of transport accessibility for people with disabilities (of which there is substantial cross over for experiences for older people) for Waka Kotahi NZ Transport Agency (Doran et al., 2022) found multiple challenges faced by people with disabilities using transport in Aotearoa New Zealand persist. This can have a large negative

impact on the day-to-day wellbeing of people with disabilities and their families.

The review noted that Māori are the most at risk of transport-based exclusion because they need to access activities and sites in rural areas which are less likely to be accessible by public transport (Doran et al., 2022). Overall, when disabled people travel it takes longer and requires greater effort than when non-disabled people travel. Because of this, people with disabilities will often skip a journey and miss out on resources or activities that would have enhanced wellbeing.

Challenges such as problems with parking were mentioned most often as a reason for not being able to take a trip. Accessibility (such as footpaths or distance to stop), availability (frequency or lack thereof), and affordability (cost) of transport were also frequently mentioned as a challenge preventing disabled people from making trips.

A review of accessible public transport for older people (Maxwell, 2017) similarly identified the range of barriers for older people using public transport, and highlighted the car dependence of older New Zealanders. Compared with younger people, older people generally find public transport travel more difficult and use it less frequently.

Barriers to public transport use by older populations can be physical (such as inadequate infrastructure, poorly designed bus stops, etc.), service-related, perceptual, information-related, or financial (Muhammad, 2018), Research on the Auckland bus network for example, found that the most significant barriers related to service (times and routes), followed by perceptual and physical barriers. Many elderly and disabled populations feel anxious about using public transport due to past negative experiences or a lack of awareness regarding available services, for example. Initiatives such as community outreach programmes and educational campaigns can help alleviate these concerns (Campbell, n.d.).



Photo credit:

Environment Canterbury
Regional Council. Timaru's
MyWay service offers a
roaming bus service that can
be called on demand.

Increasing access to accessible public transport delivers significant economic returns alongside social benefits. A Canadian cost-benefit study found that good public transport improves productivity, expands the tax base, reduces health system costs, improves road-user safety, and lowers the expense of providing specialised transit services, for example (Canadian Urban Transit Association, 2013).

For older and disabled people, the benefits extend beyond economics to improvements in independence, wellbeing, and inclusion. Accessible transport enables people to attend medical appointments, access education and services, and participate in recreational and social activities. These opportunities reduce isolation, improve health outcomes, and build stronger community connections. In this way, investment in accessible public transport not only offsets costs but also fosters healthier, more engaged, and socially cohesive communities (Canadian Urban Transit Association, 2013).

An accessible transport system starts at the front door

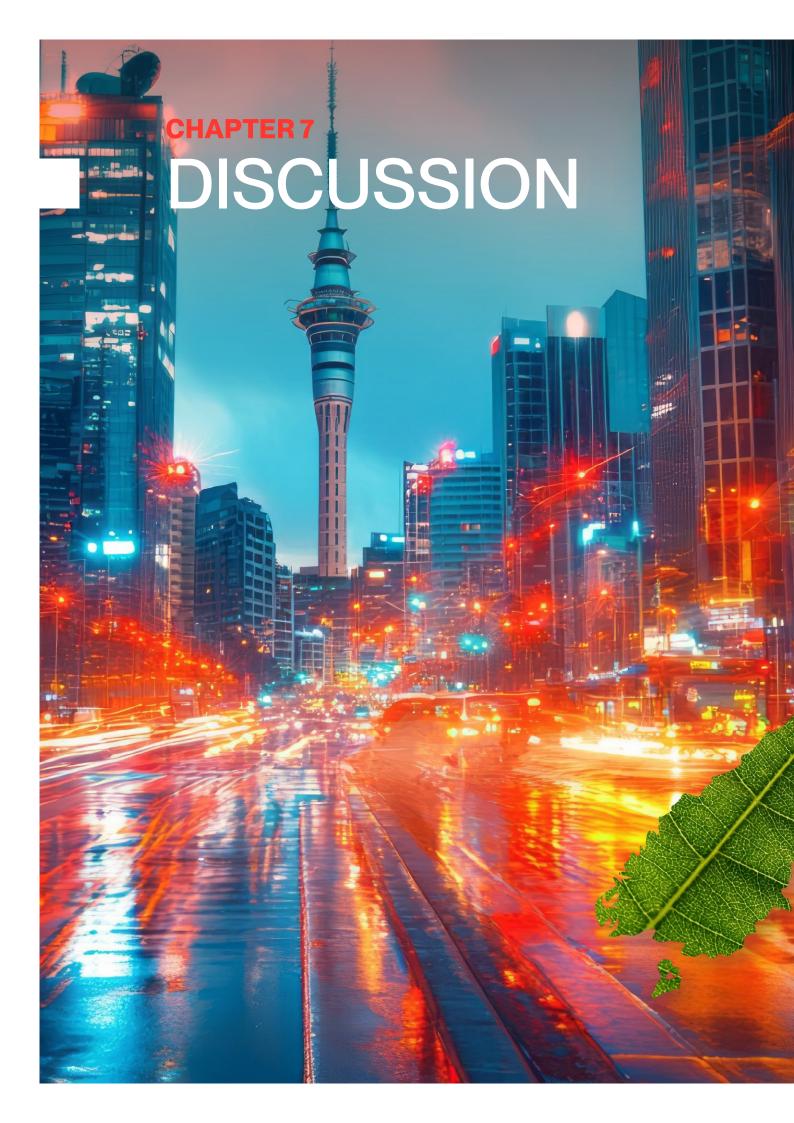
For some older people, public transport remains effectively inaccessible because the physical journey to reach bus or train stops can be challenging (Office for Seniors, n.d). Uneven footpaths, steep inclines, lack of seating, poor lighting, and long distances can make walking or using a mobility aid difficult or even unsafe. As a result, even if services are frequent and affordable, the initial barrier of simply reaching the stop can prevent older adults from using public transport, limiting their independence and participation in community life.

Some local communities around the country have considered alternative public transport models to respond to these challenges, including hospital pick up services and mini buses that carry people door to door. As one notable example,

Timaru's MyWay service offers a roaming bus service that can be called on demand, picks up passengers from their home, and is not limited by pre-determined routes. The service began as a pilot in 2020 and was recently made permanent. MyWay has a significantly higher usage than the standard, traditional bus service previously had (Environment Canterbury Regional Council, 2024).

RECOMMENDATIONS

- Commit more funding to help regions design and implement agefriendly city plans, and put in place proper accountability mechanisms for these.
- Zone for mixed use, higher density housing models to avoid sprawl and ensure people can easily access services, even without a private car.
- Expect that in the future, some communities may need to be made more compact as populations shrink and age, or that service provision may need to be limited. Introduce policies to ensure that if and when this happens, it is undertaken in a fair and equitable way, with adequate community consultation.
- Invest in initiatives such as regular driver refresher courses, vehicle safety checks, and road design improvements to help older people keep driving safely, for longer
- Invest in alternatives to driving, such as more frequent, accessible public transport, community shuttle services, and better pedestrian and cycling infrastructure.
- Make streets safer and more pleasant for older people to move around, by improving the quality of pavements and kerbs, making crossings safer, and ensuring the provision of adequate seating and lighting, for example.





Aotearoa New Zealand needs to plan better for population change

The call to be clearer and more strategic about national and local population plans has come from many quarters over the past years. The way the country currently plans for and understands demographic changes tends to be high level and does not translate to detailed needs-based infrastructure planning.

Without a clear medium—long-term plan about levels of population growth the country is planning to sustain, and where this growth will be (or will not be), it will be impossible to plan for the infrastructure it will need as the country ages. The New Zealand Productivity Commission's recommendation (2022) that governments should produce a General Policy Statement (GPS) on population is an important one. The New Zealand Infrastructure Commission (n.d.) similarly recommends establishing a national population plan that:

- a. Presents a likely population pathway over the next 50 years and identifies supporting policies.
- b. Provides direction for regional spatial plans.
- c. Identifies supporting policies required for Aotearoa New Zealand to capitalise on the benefits of a larger population, while managing and minimising the costs of growth.

The Infrastructure Commission (n.d.) also recommends that best practice advice be regularly reviewed and published to improve population projection accuracy. Importantly, it suggests implementing a requirement that local governments and other public infrastructure providers test significant infrastructure projects and investment plans against high-, medium-, and low-population projections.

As part of this work, investment plans should also be tested as a priority against population projections that account for the reality of ageing demographics. This ideally needs to happen at both the national and the local level. Plans need to be made to incorporate age-friendly features, promote active ageing, and ensure adequate access to services such as health and aged care in an equitable way across regions, towns, and even neighbourhoods.

A long-term understanding of the size – and the age – of the population that infrastructure is being prepared for is essential, especially given how long infrastructure assets take to build (Mercier, 2024). The country needs to be clear about desired and expected population growth and decline trends – and the age components of that growth or decline.

RECOMMENDATIONS

- Establish a national population plan, as recommended by the Infrastructure Commission, and require this to include a clear focus on the impacts of an ageing population at the national, regional, and local levels.
- Invest in improving data availability and accuracy for population projections, as recommended by the Infrastructure Commission (n.d.), especially at the regional and local levels.
- Require spatial plans and infrastructure plans at regional and local levels to incorporate thinking on ageing and how this will impact local needs and investment priorities. Plan strategically and in a joined-up way for ageing populations, investing proactively in anticipation of future need.

Strategic, cross-party leadership on ageing is essential

An analysis of how we are planning the country's infrastructure to respond to an ageing population in this country unfortunately reveals that while some work is going on across government, it is piecemeal, largely reactive, too little too late, and could be better strategically linked. Different agencies and government departments are to a large extent left to do their own thing, from health and aged care, to housing, disability, and accessibility, to hospice care to immigration, to social supports and benefits, to local government planning, through to central government infrastructure planning - all without considering how these pieces might interconnect. With separate budget lines, there is no driving incentive to be innovative to save cost across the system as a whole.

One small example relates to how the country provides assistance to older people to stay in their homes as long as possible. Work and Income New Zealand can currently give small subsidies to help support home maintenance, and can help support the cost of things such as lawn mowing or help with the laundry as part of the disability allowance. The cost benefit of this type of intervention has been shown to be extremely positive (Washington, et al., 2025), but there appears to have been little attempt to quantify benefits and improve the number of people receiving assistance across the board in response.

Extra investment in keeping people at home might cost one department of government more than it feels it can afford, while the potential for savings might be huge for another agency (in this case, Health New Zealand). This kind of joined-up thinking will be essential as the fiscal impacts of demographic change become more pressing. If budget lines could be joined up, and the cost and benefits of different interventions made transparent, this could be transformative.



As another example, we have seen that hospital discharge policies are frequently undermined by a lack of affordable, accessible housing, and complementary community-based support services. Coordinated planning across agencies could address these problems by ensuring investment in home help, respite services, and aged-care beds is aligned with projected local demand. Doing so would not only reduce costs significantly in the hospital sector, but also support older people to remain in their communities for longer, in line with government policy goals for ageing in place.

Similarly, in terms of planning, failing to anticipate where aged care facilities will be needed in the future, or building new facilities without considering transport links and access to essential services in the community can leave older people isolated from families and friends. Cross-government planning at central level, as well as joined-up thinking at regional and local levels. would incentivise decision makers to work together to anticipate these linkages and invest in infrastructure and services in a way that produces the best outcomes for both individuals and the wider system.

A comprehensive, planned approach would allow Aotearoa New Zealand to use its infrastructure dollars more efficiently. Investing in integrated planning would lead to long-term cost savings by reducing duplication, preventing crises, and enabling preventive rather than reactive service. In an era of fiscal constraint, this is not just desirable but necessary to sustain high-quality services.

Instead, with a looming fundamental shift in demographics to respond to, the current, siloed approach risks duplication of effort, missed opportunities for efficiencies, gaps in provision, and sub-optimal outcomes for older people.

RECOMMENDATIONS

Given that investment planning to support Aotearoa New Zealand's ageing population is currently piecemeal and lacking in strategic direction, the Government should:

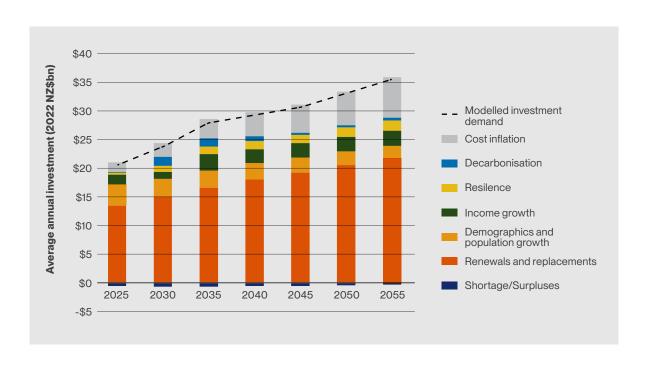
- Seek multi-party agreement, to the extent possible, on a strategic long-term vision for the country's infrastructure needs as they relate to the population becoming older.
- Establish a national crossgovernment leadership body on ageing, mandated to produce a long-term, evidence-based strategy and to supervise its implementation. The group's role would be to align demographic data with service and infrastructure planning and investment, producing a shared roadmap that successive governments can follow.
- Consider making budget lines across agencies that support the infrastructure (and other) needs of older populations transparent and, ideally, transferable. Costs in one part of the system that lead to significant savings in another should be acknowledged and accounted for, to build political licence for investments that save costs for the system as a whole.
- At the regional and local level, plan strategically and in a joined-up way for ageing populations, investing appropriately in response.

Paying for infrastructure will be challenging as the population ages

It has been widely reported that Aotearoa New Zealand faces a significant infrastructure deficit (Mercier, 2024). The country has not invested in new infrastructure at the required level to keep up with population growth, nor has it sufficiently maintained and renewed what it already has (New Zealand Infrastructure Commission, 2024). The country also faces significant future challenges from climate change, which will place added pressure on the resilience of existing infrastructure. If the country continues to invest at current rates, that will add up to shortfalls in funding of as much as \$210 billion over the next 30 years, according to an analysis by Sense Partners (2021) for the Infrastructure Commission.

Future capital investment demand is set to grow, and a significant chunk of this demand is due to demographic change – see Figure 16.

Figure 16:Projected composition of capital investment demand (New Zealand Infrastructure Commission, 2025).



These costs will hit New Zealanders at a time in which there are proportionally fewer people of working age to pay for them.

An ageing population, rising costs to build and maintain infrastructure, and poor productivity mean it will be harder to pay for infrastructure investment in the future in Aotearoa New Zealand (New Zealand Infrastructure Commission, 2025).

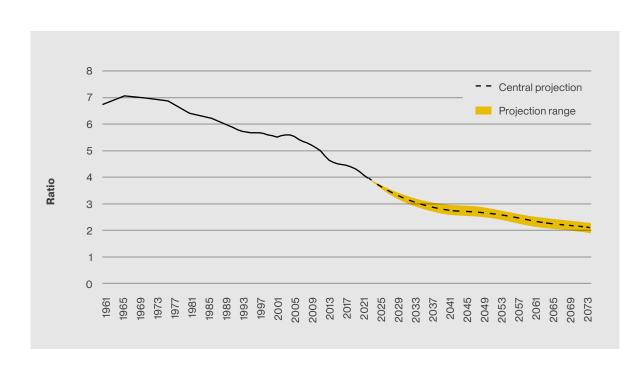
The Treasury's most recent statement on the country's long-term fiscal position (2025) noted the expectation that fiscal pressures will accelerate in coming decades. In particular, population ageing will increase the cost of providing retirement income. Most New Zealanders aged over 65 receive a pension ('Super') paid out of general taxation; however, the number who receive Super is rising faster than the number of New Zealanders aged 15–64 (the age bracket that pays the most tax revenue).

In 1960, Aotearoa New Zealand had seven working-age people for every one person over the age of 65. Today, this ratio is around four to one. By the 2070s the ratio will have fallen to two working-age people for every person over the age of 65 (Figure 17) (New Zealand Infrastructure Commission, 2025). In other words, the age group that is the largest recipient of government benefits (through Superannuation) is the fastest-growing group, while the working-age population will begin to shrink from the early 2030s.

As the age structure of the population changes, the cost of maintaining Superannuation in its current form will rise. In 2006, it cost 3.9 per cent of GDP. Today it costs 5.1 per cent, and if current policies are maintained, Superannuation is expected to grow to around 8 per cent of GDP by 2065 (The Treasury, 2025).

Meanwhile, healthcare costs are also rising relative to GDP. The Treasury (2025) projects that the changing age structure of our population, combined with the rising cost of providing healthcare, will see health expenditure rise from 7.1 per cent of GDP now to around 10 per cent in 2065 if policies are left unchanged. Although less certain, other forces – such as climate change – could also put pressure on government finances over time.

Figure 17:
Ratio of working-age people to people over the age of 65, 1961–2073 (New Zealand Infrastructure Commission, 2025).



The Treasury puts forward a range of options to help with this in its long term fiscal policy statement (2025). These include reforming how the level of New Zealand Superannuation is determined, raising the age of eligibility, or bringing in means testing, for example. These considerations are outside the scope of this report but clearly some serious decisions will have to be made in the near future to ensure infrastructure (and other) demands can be met as the population ages.

Productivity, which is already low by OECD standards, is also predicted to slow over time, meaning that in the long term, income growth will also slow (Destremau, 2025). This will make it harder for households to pay the taxes, rates, and user charges needed to fund increasing demand for infrastructure investment (New Zealand Infrastructure Commission, 2025).

So can the country rely on immigration to help? The ageing population here (and other countries) is expected to continue to increase the demand for both high-skill migration and lower-skill migration in the health and aged-care sectors, as well as for low-skill but physically demanding work (such as in the horticulture industry). At the same time, population ageing, economic development, and improved living standards in many traditional source countries for migrants could limit the future supply of workers, making it hard for us to attract people to the health and aged-care sectors (New Zealand Productivity Commission, 2022).

Many countries in the English-speaking world are on very similar paths to Aotearoa New Zealand in terms of population ageing. Within the 38 OECD countries, the country's current and projected ageing path over the next decades tracks very closely to the average in terms of the number of people aged 65+ we can expect to have compared to the number of working-age people (OECD, n.d.). In other words this problem is unlikely to be easily fixed by tweaking immigration settings (Jackson & Cameron, 2018).



Some territorial authorities will struggle to fund infrastructure from rates, as populations decline and age

Traditionally, the country's 67 territorial authorities (local government bodies) have relied on growth to fund development, using mechanisms such as development contributions to finance new infrastructure. However, as populations in some regions stagnate or shrink and the proportion of older residents rises, this growth-based funding model is becoming increasingly unsustainable. Where there is little or no new development to generate contributions, councils may be left to fund essential infrastructure upgrades and maintenance through rates alone.

This presents a serious challenge for many communities. Rising costs for core services such as water supply have already placed significant pressure on ratepayers (Milne, 2025).

As just one example, in Central Hawke's Bay, water charges had been projected to more than double from an average of \$3,200 in 2025, to \$7,000 in 2034, to catch up on years of underinvestment in infrastructure. By that time, one in four residents will be aged 65 or over (Milne, 2025). In response, the council recently opted to slow levels of investment, and reduce service levels to keep rates down. Meanwhile, South Wairarapa ratepayers face annual average expected water bills of \$6,605 by 2034 (Ireland, 2025).

An ageing population compounds the problem of skyrocketing rates charges, as many residents live on fixed incomes and have limited capacity to absorb further rate increases. The risk is that necessary infrastructure investment will be delayed or deferred, leading to declining service quality and poorer health and environmental outcomes.

The existing funding model for local government is widely regarded as inadequate for the demographic and

fiscal realities ahead. If councils are left to shoulder the financial challenges alone, many will struggle to maintain even basic infrastructure, let alone invest in the upgrades needed to support healthy ageing. Central government will need to give serious consideration to how it supports infrastructure delivery in the regions, whether through direct investment, cost-sharing arrangements, or new funding tools (Mercier, 2024).

Proposals have ranged from the central government paying rates on its property, to sharing a portion of GST revenue with councils, to establishing dedicated infrastructure funds or providing targeted subsidies for water, transport, and housing projects in high-need areas. A clear, sustainable funding framework will be essential to ensure infrastructure investment keeps pace with the needs of an ageing population (Mercier, 2024).

"It's no secret that the funding system for local government is broken. Relying so heavily on rates is unsustainable."

Sam Broughton, LGNZ President (RNZ, 2024a)

RECOMMENDATION

Enable a greater level of resource transfer from central government to address chronic underinvestment in infrastructure, and to ensure appropriate and adequate infrastructure is affordable for the age demographic in each area. Potential solutions include charging central government rates on properties they own locally, and/or removing GST from rates. If not, expect rates to continue to rise sharply, with the burden felt most by those with the least ability to pay (older people on fixed incomes, for example).



Poverty among older people is growing and this will be an increasing issue in the future

This report has looked at future need for different types of physical infrastructure that has particular relevance for an ageing population. However, the ability to access infrastructure and services and to live a connected and meaningful life as you age is equally important. Poverty is a significant factor in that.

A recent report for the Ministry of Social Development (Pinto et al., 2023) researched older people and their experiences of vulnerability and multiple disadvantage. The report looked at five domains of wellness, and found many older people are doing well in this country: 54 per cent are healthy, have liveable housing, are financially secure, have good social connections and can access services. However, at least 33 per cent of older people experience vulnerability in one of these five domains, and 13 per cent experience multiple disadvantage.

Among those who experience multiple disadvantage, there is a complex spectrum of need. For example. there are groups of older people experiencing multiple mental health conditions paired with compounding housing and financial vulnerability. Multiple disadvantage in two domains is mostly due to poor health and lack of social connection and multiple disadvantage in three domains is mostly due to vulnerability in health, housing, and finance (Pinto et al., 2023). Eighteen per cent of older people in this country experience housing vulnerability, living in poor quality or/and overcrowded houses, and renters are more at risk of this than those who own their home (Pinto et al., 2023).

Māori and Pacific peoples experience disproportionately higher levels of vulnerability. Older Pacific peoples experience most vulnerability in housing, and Māori are most vulnerable in health outcomes, while Europeans experience the highest proportion of social connection vulnerability.



In this country, homeownership underpins an asset-based welfare system, with older people commonly relying on their housing asset for their wellbeing. Aged care and retirement income policies assume older people are mortgage-free homeowners, able to liquidate that asset to underwrite future housing and residential care needs, as well as maintain living standards (Dale, 2024; Saville-Smith n.d.).

The government's 'Better Later Life He Oranga Kaumātua 2019 to 2034' strategy (Office for Seniors, 2019) acknowledges New Zealand Super is no longer sufficient for some retirees to live in dignity in retirement: "As our population continues to age and numbers of older people increase, central government will need to spend more on NZS (Super) and health care costs. We also expect to see increased numbers of financially vulnerable older people needing extra support, including housing support."



Without major policy changes to improve home ownership rates or to increase superannuation rates, many of Aotearoa New Zealand's increasing number of retirees will necessarily have to rely on support from additional government benefits, an underfunded NGO sector, and/or family networks through their later years (Dale, 2024).

It is unarguable that being wealthier means having more opportunities, from housing availability, to access to healthcare and other services. Tackling poverty in old age will be a complementary part of the puzzle, alongside proper infrastructure provision, to ensuring older people live happy, connected lives. While it is outside the scope of this report, it is clear the government will need to do some serious thinking about how it will fund New Zealand Super and our increasing health costs in the future. This is another argument to develop a long-term cross-government strategy that sits somewhat outside of politicised debates. All parties will need to be pulling in the same direction to find a way forward for this complicated and costly issue.

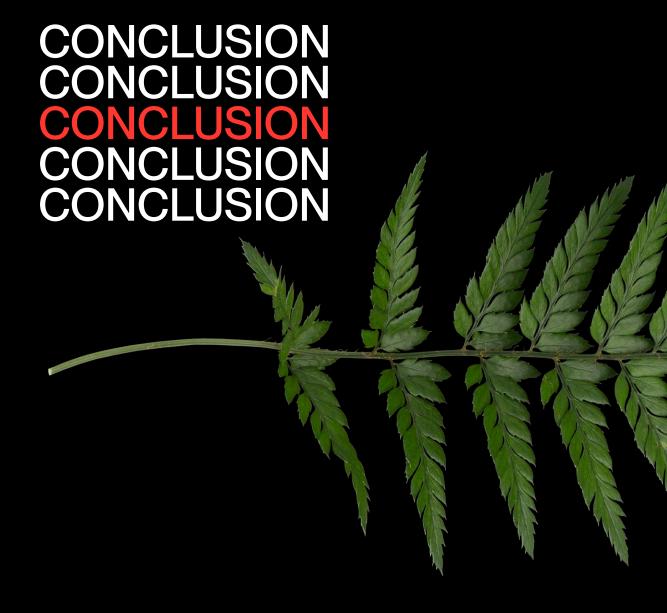
The Retirement Commission's recent review of Retirement Income Policies (2022) pointed to an increasing number of older people who are struggling to live on Super alone – even those who own their own home. For those, many are continuing to pay a mortgage after the age of 65. For the increasing number who are renting now and are likely to be renting in the future, things are even more of a struggle financially.

As a result, poverty is becoming an increasing concern for older people (Yadav, 2024). In 2020, 16.8 per cent of people over 65 were living in poverty. For women, this was even higher at 20.1 per cent. Aotearoa New Zealand had the largest increase in income poverty for older people in the OECD between 2000 and 2020 (OECD, 2023a; Yadav, 2024).

RECOMMENDATION

 Address poverty and multiple disadvantage in old age, for example by assessing whether New Zealand Super payments are sufficient, given lower home ownership rates, increasing living costs, and a reduction in community housing that previously supported those who needed it.





New Zealand faces profound demographic change as its population ages rapidly and unevenly across regions. Larger cities will see sharp growth in the absolute number of older residents, requiring significant investment in health, housing, transport, and aged care facilities. At the same time, many smaller towns and rural areas will 'hyper-age,' with older people making up a disproportionately high share of their populations, raising challenges for infrastructure funding and service provision. Responding effectively means recognising these regional differences and planning infrastructure that supports older people to live active, connected lives wherever they are.

Dealing with the ageing of our population will cost a great deal,

but failing to act will cost more. Infrastructure decisions made now will determine whether the coming decades are marked by crisis or by opportunity. For example, designing houses to be accessible from the outset is estimated to be up to 20 times cheaper than retrofitting existing housing later (NZ Disability Support Network, 2022). Similarly, enabling people to age in place delivers major cost savings as well as better quality of life. Providing home and community support typically costs slightly more that one-tenth of aged residential care, which itself costs only a fraction of a hospital stay. Proactivity is the best course, ensuring that investment is guided by long-term savings and wellbeing outcomes rather than shortterm pressures.

To make this possible, the country needs more regular sub-national population projections, with these data consistently pulled through into planning and investment decisions. Infrastructure planning at both central and local levels must align with demographic realities and anticipate where growth and ageing will occur. Transport deserves particular

attention: towns and cities need accessible, affordable options that work for older people as they become less able to drive. Timaru's MyWay on-demand shuttle service provides an excellent model of how flexible, cost-effective transport can support independence and social participation, while also benefitting younger residents.

Ultimately, what is better for older people is better for all of us. Investing in accessible housing, aged care facilities, preventative healthcare, and age-friendly communities enhances wellbeing across generations while reducing long-term fiscal pressure. Older New Zealanders make valuable contributions through work, volunteering, caregiving, and community engagement. By planning infrastructure that enables them to stay healthy, mobile, and connected, we not only strengthen their lives but also build more resilient and inclusive communities. With foresight, coordination, and investment, New Zealand can turn the challenges of ageing into a success story.





REFERENCES REFERENCES REFERENCES REFERENCES REFERENCES

Aged Care Association. (2025). *Aged Care Association submission to the Infrastructure Priorities Programme.* (Provided to author).

Aged Plus. (2023). Paradigm shift in New Zealand's Aged Care Landscape. https://agedplus.co.nz/2023/08/25/big-6-dominant-in-aged-care-sector/#:~:text=The%20six%20largest%20retirement%20village,communities%20prioritising%20holistic%20well%2Dbeing

Albanese, A. (2024). *Once in a generation aged care reforms*. Press release. Prime Minister of Australia. https://www.pm.gov.au/media/once-generation-aged-care-reforms?utm_source=chatgpt.com

Allen, N., Bryson, K., Talei, C., Kake, J., O'Donnell, G., & Paul, J. (2025). *Understanding key barriers to the delivery of multigenerational housing in New Zealand*. BRANZ https://d39d3mj7qio96p.cloudfront.net/media/documents/ER115_Final_report.pdf

Annear, M., & Hyde, C. (2025). Taking stock of Age-Friendly Cities in Aotearoa New Zealand: Progress, pitfalls and pathways towards healthy ageing. *Australasian Journal on Ageing*, 44, e70058. https://onlinelibrary.wiley.com/doi/pdfdirect/10.1111/ajag.70058

Auckland Council. (2025). *Auckland unitary plan operative in part November 2016*. https://unitaryplan.aucklandcouncil.govt.nz/

Australian Government. (2025). *Aged Care Capital Assistance Program.* Department of Health, Disability and Ageing. https://www.health.gov.au/our-work/aged-care-capital-assistance-program

Autofile. (2023). *Kiwis most reliant on cars*. https://autofile.co.nz/kiwis-most-reliant-on-cars. https://autofile.co.nz/kiwis-most-reliant-on-cars.

Bolton Clarke. (2023). *Ageing Well Report 2023*. https://www.boltonclarke.com.au/globalassets/news--resources/whitepapers/ageing-well-report-2023.pdf

Broad, J. B., Wu, Z., Bloomfield, K., Hikaka, J., Bramley, D., Boyd, M., Tatton, A., Calvert, C., Peri, K., Higgins, A-M., & Connolly, M. J. (2020). Health profile of residents of retirement villages in Auckland, New Zealand: Findings from a cross-sectional survey with health assessment. *BMJ Open*, 10, e035876. https://assets.retirement.govt.nz/public/Uploads/Retirement-Villages/Events/Bloomfield_RV-Study.pdf

CaDDANZ (n.d.) *The New Zealand Atlas of Population Change.* https://socialatlas.waikato.ac.nz/about.html

Campbell, O. (n.d.). Accessible public transport: Empowering elderly and disabled. Sustainable Living. https://sustainableliving.org.nz/accessible-public-transport-empowering-elderly-disabled/

Canadian Urban Transit Association (2013). Value case for accessible transit in Canada. https://cutaactu.ca/wp-content/uploads/2021/01/cutareport_valuecaseforaccessibletransitincanada.pdf

Cheung, K. S., Monkkonen, P., & Yiu, C. Y. (2023). *The heterogeneous impacts of widespread upzoning: Lessons from Auckland, New Zealand. Urban Studies, 61*(5), 943–967. https://journals.sagepub.com/doi/full/10.1177/00420980231190281

Dale, C. (2024). Housing options for older people in Aotearoa New Zealand: Trends and challenges. PIE Pension Briefing 2024-1. University of Auckland Economic Policy Centre. https://www.auckland.ac.nz/assets/business/our-research/docs/economic-policy-centre/pensions-and-intergenerational-equity/PIE%20Policy%20Briefing%202024-1%20Housing%20Options%20for%20Older%20People.pdf

Davey, J., & Glasgow, K. (2006). Positive ageing: A critical analysis. *Policy Quarterly*, 2(4). https://ojs.victoria.ac.nz/pq/article/view/4209/3710

Davis, P. (2024). *Health's 'back office' crucial to modern healthcare*. University of Auckland. https://www.auckland.ac.nz/en/news/2024/05/15/health-back-office-crucial-to-modern-healthcare.html

Destremau, K. (2025). *Relooking at our productivity gap*. Berl Economic Insights series. https://www.berl.co.nz/economic-insights/relooking-our-productivity-gap#:~:text=New%20Zealand%27s%20gross%20domestic%20product,Global%20Financial%20Crisis%20in%202008

Doren, B., Crossland, K., Brown, P., & Stafford, L. (2022). Research Report 690 Transport experiences of disabled people in Aotearoa New Zealand. NZ Transport Agency Waka Kotahi. https://www.nzta.govt.nz/resources/research/reports/690

Duff, M. (2025). 'Hollowing out': New Zealand grapples with an uncertain future as record numbers leave. *The Guardian*. https://www.theguardian.com/world/2025/ may/09/leaving-new-zealand-record-departure-numbers?utm_source=chatgpt.com

Eggleton, K. (2024). A tool not a panacea: Telehealth is overhyped as a solution to New Zealand's rural health-care crisis. The Conversation. https://theconversation.com/a-tool-not-a-panacea-telehealth-is-overhyped-as-a-solution-to-new-zealands-rural-health-care-crisis-236132

Ellingham, J. (2025). *Community support workers among NZ's lowest paid*. RNZ. https://www.rnz.co.nz/news/national/565563/community-support-workers-among-nz-s-lowest-paid

Environment Canterbury Regional Council. (2024). *MyWay by Metro's record-breaking year: 24-year patronage high recorded in Timaru*. https://www.ecan.govt.nz/get-involved/news-and-events/2024/myway-by-metros-record-breaking-year-24-year-patronage-high-recorded-in-timaru?utm_source=chatgpt.com

Hartwich, O. (2025). Aged care: A silent emergency. The New Zealand Initiative.https://www.nzinitiative.org.nz/reports-and-media/opinion/aged-care-a-silent-emergency/#:~:text=The%20economics%20make%20this%20scenario,precisely%20when%20we%20need%20expansion

Health and Disability System Review. (2020). *Health and Disability System Review – Final Report*. https://www.health.govt.nz/system/files/2022-09/health-disability-system-review-final-report.pdf

Health New Zealand. (n.d.). Residential care questions and answers. https://www.tewhatuora.govt.nz/for-health-professionals/clinical-guidance/specific-life-stage-health-information/health-of-older-people/long-term-residential-care/residential-care-questions-and-answers

Health New Zealand. (n.d.a). About the Infrastructure and Investment Group. https://www.tewhatuora.govt.nz/health-services-and-programmes/infrastructure-and-investment/about

Health New Zealand. (n.d.b). *National Telehealth Service*. https://www.tewhatuora.govt.nz/health-services-and-programmes/digital-health/national-telehealth-service

Health New Zealand. (2024). *Aotearoa New Zealand Health Status Report 2023*. https://www.tewhatuora.govt.nz/assets/Publications/Health-status-reports/HNZ-TWO-Health-Status-Report_FULL.pdf

Health New Zealand. (2024a). *Infrastructure Planning Framework*. https://www.tewhatuora.govt.nz/assets/Our-health-system/Infrastructure-and-investment/ Infrastructure-planning-framework-FINAL.pdf

Health New Zealand. (2025). *Health Infrastructure Plan*. https://www.tewhatuora.govt.nz/publications/health-infrastructure-plan

Health New Zealand. (2025a). *New Zealand Health Plan / Te Pae Waenga*. https://www.tewhatuora.govt.nz/publications/new-zealand-health-plan-te-pae-waenga

Hill, R. (2024). Rural New Zealanders suffer from lack of available healthcare, say doctors. *New Zealand Herald*. https://www.nzherald.co.nz/nz/rural-new-zealanders-suffer-from-lack-of-available-healthcare-say-doctors/WGFM6BHF4JBKDEAJDMEJOL325M/

Hong, L. (2021). The Need to Build. The demographic drivers of housing demand. The New Zealand Initiative. https://www.nzinitiative.org.nz/reports-and-media/reports/ the-need-to-build/?utm_source=chatgpt.com

Human Rights Commission. (2021). *Disabled people need to be key in Government's new public housing plans*. https://tikatangata.org.nz/news/disabled-people-need-to-be-key-in-governments-new-public-housing-plans

Human Rights Commission. (2022). Shortage of accessible homes a human rights deficit. http://tikatangata.org.nz/news/shortage-of-accessible-homes-a-human-rights-deficit

Ireland, E. (2025). Wairarapa water charges laid bare ahead of decision day. Community Scoop. https://community.scoop.co.nz/2025/08/wairarapa-water-charges-laid-bare-ahead-of-decision-day/

Jackson, N., & Brabyn, L. (2017). The mechanisms of subnational population growth and decline in New Zealand 1976–2013. *Policy Quarterly*, 13, 2. https://ojs.victoria.ac.nz/pq/article/view/4553/4041

Jackson, N. & Cameron, M. (2018). The unavoidable nature of population ageing and the ageing-driven end of growth – an update for New Zealand. Journal of Population Ageing, 11(1). https://www.researchgate.net/publication/315466045 The Unavoidable Nature of Population Ageing and the Ageing-Driven End of Growth – an Update for New Zealand

Jamal, A. (2024). New tool shows aged cares' spending. Aged Care Insite. https://www.agedcareinsite.com.au/2024/03/new-tool-shows-aged-cares-spending/?utm_source=chatgpt.com

James, B., Saville-Smith, N., & Fraser, R. (2024). *Improving housing accessibility to meet the needs of an ageing population: A rapid review of literature*. Report for the Ageing Well National Science Challenge. University of Otago. https://faabsmallhomes.goodhomes.co.nz/wp-content/uploads/2024/07/Rapid-review-report-18-July-final.pdf

JLL. (2024). New Zealand retirement villages whitepaper. https://www.retirementvillages.org.nz/common/Uploaded%20files/Document%20Library/jll-research-retirement-village-whitepaper-2024.pdf

Judkins, R. (2023). *The worrying rise of retired renters*. The Spinoff. https://thespinoff.co.nz/society/07-12-2023/the-worrying-rise-of-retired-renters

Käinga Ora. (2019). Accessibility policy. https://kaingaora.govt.nz/assets/Tenants-and-communities/Documents/Kainga-Ora-Accessibility-Policy-PDF-FINAL-15.11.19.

https://kaingaora.govt.nz/assets/Tenants-and-communities/Documents/Kainga-Ora-Accessibility-Policy-PDF-FINAL-15.11.19.

https://kaingaora.govt.nz/assets/Tenants-and-communities/Documents/Kainga-Ora-Accessibility-Policy-PDF-FINAL-15.11.19.

https://kaingaora.govt.nz/assets/

<a

Kāinga Ora. (2025). *Accessible housing*. Response to OIA request, 13 March 2025. https://kaingaora.govt.nz/assets/Publications/OIAs-Official-Information-Requests/March-2025/13-March-2025-Accesible-Housing.pdf

Liddle, J., Scott, T., Hoyle, M., Salmon, A., Gustafsson, L., & Pachana, N. (2024). The mental health outcomes of driving cessation for older people: A systematic review. *International Psychogeriatrics*, 100020. https://www.sciencedirect.com/science/article/pii/S1041610224000218

Lindsay-Smith, G., O'Sullivan, G., Eime, R., Harvey, J., & Van Uffelen, J. (2018). A mixed methods case study exploring the impact of membership of a multi-activity, multicentre community group on social wellbeing of older adults. BMC Geriatrics Series. Springer Medicine. https://www.springermedicine.com/a-mixed-methods-case-study-exploring-the-impact-of-membership-of/22669144?utm_source=chatgpt.com

Lo, A. & Mitra, S. (2025). A tale of two aging nations: How do urban designs impact older adults' mobility in automobile versus transit societies? *Travel Behaviour and Society, VI* (39), 100961. https://www.sciencedirect.com/science/article/pii/S2214367X24002242?via%3Dihub

Marshall, R. (2024). What does your zone mean for you and your property? Baseline Group. https://blg.nz/blog/what-does-your-zone-mean-for-you-and-your-property

Maxwell, H. (2017). *Accessible public transport for older people*. University of Auckland. https://www.fmhs.auckland.ac.nz/assets/fmhs/faculty/ABOUT/research/summer-scholarships/docs/Hannah%20Maxwell1.pdf

McIlraith, B. (2023). New Zealanders stuck in a 'car dependency cycle' as fuel likely to rise to record-breaking prices. Stuff. https://www.stuff.co.nz/business/money/132964784/new-zealanders-stuck-in-a-car-dependency-cycle-as-fuel-likely-to-rise-to-recordbreaking-prices

McKenzie, P. (2024). 'It felt like bad news after bad news': Why record numbers are leaving New Zealand. *The Guardian*. https://www.theguardian.com/world/article/2024/jun/21/it-felt-like-bad-news-after-bad-news-why-record-numbers-are-leaving-new-zealand

Mercier, K. (2024). Bridging the Infrastructure Gap. Funding and financing for a resilient Aotearoa New Zealand. The Helen Clark Foundation and WSP in New Zealand. https://helenclark.foundation/publications-and-medias/bridging-the-infrastructure-gap/

Milne, J. (2025). Cash-strapped councils set to slash spending on water infrastructure. Newsroom. https://newsroom.co.nz/2025/07/25/cash-strapped-councils-set-to-slash-spending-on-water-infrastructure/

Ministry for the Environment. (2025). *RM reform update – April 2025*. https://environment.govt.nz/news/resource-management-update-april-2025/#:~:text=National%20Direction%20under%20the%20new,on%20the%20national%20direction%20programme

Ministry of Health. (2016). *Healthy Ageing Strategy*. https://www.health.govt.nz/publications/healthy-ageing-strategy

Ministry of Health. (2024). *Briefing. The health of older people and aged care in New Zealand*. H2023033431. https://www.health.govt.nz/system/files/2024-08/h2023033431 the health of older people and aged care in new zealand black_box.pdf

Ministry of Housing and Urban Development (2023). *Long Term Insights Briefing*. https://www.hud.govt.nz/assets/Uploads/Documents/Long-term-Insights-Briefing/Long-term-Insights-Briefing-2023-PDF-version.pdf

Ministry of Transport. (2014). *Household travel*. https://www.transport.govt.nz/statistics-and-insights/household-travel/sheet/how

Mitchell, C. (2025). The grey wave: Will New Zealand's ageing towns sink or swim? Waikato Times. https://www.waikatotimes.co.nz/nz-news/360579941/grey-wave-will-new-zealands-ageing-towns-sink-or-swim

Morrah, M. (2024). Senior emergency department physicians warns hospital bed block is worst it's ever been. *New Zealand Herald*. <a href="https://www.nzherald.co.nz/nz/senior-emergency-department-physician-warns-hospital-bed-block-is-worst-its-ever-been/OFE24AX33RCFLNTSJY4MRO4T3M/#:~:text=This%20has%20been%20creeping%20up,of%20arriving%20at%20an%20ED

Moore D., Loan, J., Rohani, M., Trill, R., Manning, N., & Yee, D. (2024). A review of aged care funding and service models: A strategic assessment of aged residential care and home and community support services. Sapere. https://www.tewhatuora.govt.nz/assets/For-the-health-sector/Specific-life-stage/Health-of-older-people/FINAL_A-review-of-aged-care-funding-and-service-models_strategic-assessment.pdf

Morckel, V. (2020). Flint (MI) missed an opportunity to "right size" with its water crisis. *Journal of the American Planning Association, 86*(3), 304–310. https://www.tandfonline.com/doi/full/10.1080/01944363.2020.1734059

Mu, Y., Yi, M. & Liu, Q. (2023). Association of neighborhood recreational facilities and depressive symptoms among Chinese older adults. *BMC Geriatric*, 23, 667. https://bmcgeriatr.biomedcentral.com/articles/10.1186/s12877-023-04369-0?utm_source=chatgpt.com

Muhammad, I. (2018). *Public transport for an aging population in Auckland, New Zealand*. National Academies. https://trid.trb.org/View/1494849

Napier City Council. (2020). *Napier's Positive Ageing Strategy 2020–2024*. https://www.napier.govt.nz/assets/Document-Library/Strategies/Positive-Ageing-Strategy/Positive-Ageing-Strategy-FA-April-20-SMALLEST-FILE.pdf

Neven, V. (2024). Future-proofing healthcare – meeting the needs of our shifting demographics. WSP. https://www.linkedin.com/pulse/future-proofing-healthcare-meeting-needs-our-shifting-vanessa-neven-gl0zc/

Neville, S. (2019). *Making rural New Zealand age-friendly*. AUT. https://www.aut.ac.nz/news/stories/making-rural-new-zealand-age-friendly

New Zealand Disability Support Network. (2022). Accessible housing for disabled people living in Aotearoa New Zealand. https://share.google/NDjCB656WkjGPyaXB

New Zealand Infrastructure Commission. (n.d.). *Recommendation 6.2 Supporting towns and regions to flourish*. https://tewaihanga.govt.nz/recommendations/reduce-population-uncertainties-for-infrastructure-demand-planning-and-delivery

New Zealand Infrastructure Commission. (2024). *Build or maintain? New Zealand's infrastructure asset value, investment, and depreciation, 1990–2022*. https://media.umbraco.io/te-waihanga-30-year-strategy/djkmtwj4/build-or-maintain.pdf

New Zealand Infrastructure Commission. (2025). *National Infrastructure Plan. Infrastructure Needs Analysis.* Summary of results and findings. https://media.umbraco.io/te-waihanga-30-year-strategy/xwxn2h2y/infrastructure-needs-analysis-summary-results-and-findings.pdf

New Zealand Infrastructure Commission (2025a). *Draft National Infrastructure Plan*. https://tewaihanga.govt.nz/draft-national-infrastructure-plan

New Zealand Medical Journal. (2025). Projected increases in the prevalence of diabetes mellitus in Aotearoa New Zealand, 2020–2044. New Zealand Medical Journal, 138(1608). https://www.nzmj.org.nz/journal/vol-138-no-1608/projected-increases-in-the-prevalence-of-diabetes-mellitus-in-aotearoa-new-zealand-2020-2044?utm_source=chatgpt.com

New Zealand Productivity Commission. (2022). *Immigration. Fit for the future.* Final report. https://www.treasury.govt.nz/sites/default/files/2024-05/pc-inq-is-immigration-fit-for-the-future.pdf

New Zealand Transport Agency. (2012). Research Report 484 The social impacts of poor access to transport in rural New Zealand. https://nzta.govt.nz/resources/research/reports/484

OECD. (n.d.). Ageing. https://www.oecd.org/en/topics/policy-issues/ageing. html#:~:text=Context-,Population%20ageing,on%20average%20across%20 OECD%20countries

OECD. (1994). Caring for frail elderly people: New directions in care. https://collection.sl.nsw.gov.au/record/74VK7yeGAyzX

OECD. (2023). OECD Data Explorer. https://data-explorer.oecd.org/vis?tm=DF_IDD&pg=0&snb=1&vw=ov&df[ds]=dsDisseminateFinalDMZ&df[id]=DSD_WISE_IDD%40DF_IDD&df[ag]=OECD.WISE.
INE&df[vs]=&pd=2023%2C&dq=.A.PR_INC_DISP...Y_GT65%2B_T.METH2012.D_CUR.&ly[rw]=REF_AREA%2CUNIT_MEASURE&to[TIME_PERIOD]=false&lc=en

OECD. (2023a). *Pensions at a glance 2023. OECD and G20 indicators*. https://www.oecd.org/en/publications/pensions-at-a-glance-2023_678055dd-en/full-report. https://www.html

Office for Seniors (n.d.). *An age-friendly transport system is good for us all*. https://www.officeforseniors.govt.nz/assets/documents/our-work/age-friendly/An-Age-friendly-transport-system-is-good-for-us-all.pdf

Office for Seniors. (2019). Better Later Life. He Oranga Kaumātua. 2019–2034. https://www.officeforseniors.govt.nz/assets/documents/our-work/better-later-life/Better-Later-Life-Strategy/Better-Later-Life-He-Oranga-Kaumatua-2019-to-2034. pdf

Office for Seniors. (2025). *Age friendly network*. https://www.officeforseniors.govt.nz/our-work/age-friendly-communities/age-friendly-network

Olssen, A., McDonald, H., Grimes, A., &Stillman, S. (2010). *A state housing database:* 1993–2009. Motu. https://motu-www.motu.org.nz/wpapers/10_13.pdf

Osteoporosis New Zealand. (n.d.). *Frequent fallers*. https://osteoporosis.org.nz/ healthcare-professionals/identifying-patients-at-risk-for-osteoporosis/frequent-fallers/

Our Nelson. (2021). *Envisioning a city for all ages*. https://our.nelson.govt.nz/media-releases-2/envisioning-a-city-for-all-ages/?utm_source=chatgpt.com

Persson, M., Redmalm, D., & Iversen, C. (2021). Caregivers' use of robots and their effect on work environment – a scoping review. *Journal of Technology in Human Services*, 40(3), 251–277. https://www.tandfonline.com/doi/full/10.1080/15228835.2 021.2000554

Pinto, S., Mok, P., Warn, V. (2023). Older people experiencing vulnerability and multiple disadvantage in New Zealand. A report on the needs of older people (65+) in health, housing, finance, social connection, and access. Social Wellbeing Agency. Ministry of Social Development. https://www.msd.govt.nz/documents/about-msd-and-our-work/publications-resources/research/older-people-experiencing-vulnerability-and-multiple-disadvantage-june.pdf

Public Health Ontario. (2017). Living in walkable neighbourhoods linked to more physical activity. https://www.publichealthontario.ca/en/About/news/2017/Walkablity-Physical-Activity

Quinn, R. (2025). Older patients stuck in hospitals due to limited aged care spaces. RNZ. https://www.rnz.co.nz/news/national/569671/older-patients-stuck-in-hospitals-due-to-limited-aged-care-spaces

Reid, A. (2025). Migration: *The engine driving New Zealand's population growth*. Economic Insights. Berl. https://berl.co.nz/economic-insights/migration-engine-driving-new-zealands-population-growth

Retirement Commission. (2021). *New Zealand retirement income policies and how they compare within the OECD*. https://assets.retirement.govt.nz/public/Uploads/ Retirement-Income-Policy-Review/TAAO-RC-Policy-Paper-2021-02.pdf

Retirement Commission. (2022). *Review of retirement income policies*. https://assets.retirement.govt.nz/public/Uploads/Retirement-Income-Policy-Review/2022-RRIP/RRIP_2022.pdf

Retirement Commission. (2024). How ready are New Zealand landlords for growing numbers of ageing tenants? https://retirement.govt.nz/news/latest-news/how-ready-are-new-zealand-landlords-for-growing-numbers-of-ageing-tenants

Retirement Commission. (2024a). *Population ageing and the private rental sector in New Zealand: How prepared are New Zealand landlords?* Policy Brief 06. https://assets.retirement.govt.nz/public/Uploads/Policy-Brief-Renting-Barriers.pdf

RNZ. (2024). Danger NZ will be 12,000 residential care beds short by 2032, report finds. https://www.rnz.co.nz/news/national/514510/danger-nz-will-be-12-000-residential-care-beds-short-by-2032-report-finds

RNZ. (2024a). Govt might take \$1.1b hit to return GST on rates to councils. https://www.rnz.co.nz/news/political/515560/govt-might-take-1-point-1b-hit-to-return-gst-on-rates-to-councils

Robak, A. (2019). What if we can build better health outcomes? WSP. https://www.wsp.com/en-ca/insights/ca-what-if-we-can-build-better-health-outcomes

Sadler R., Furr-Holden D., Greene-Moton E., Larkin B., Timlin M., Walling D., & Wyatt T. (2021). Right sizing Flint's infrastructure in the wake of the Flint water crisis would constitute an additional environmental injustice. *Journal of the American Planning Association*, 87(3), 424–432. https://pmc.ncbi.nlm.nih.gov/articles/PMC8513782/

Sakamoto, T., Takagii, N., & Nakaya, T. (2021). Analysis and evaluation of long-term changes by a compact city policy in a local city. *Journal of the City Planning Institute of Japan, 56*(2), 217–223. https://www.jstage.jst.go.jp/article/journalcpij/56/2/56_217/article/-char/en

Saville-Smith, K., Cumming, J., Kearns, R., James, B., Ho, E., & Cram, F. (n.d.) Independence and housing tenure. How the 'Tenure Revolution' is creating a looming crisis for older Kiwis. National Science Challenges. https://www.ageingwellchallenge.co.nz/research/independence-and-housing-tenure/

Sense Partners. (2021). New Zealand's infrastructure challenge, quantifying the gap and path to close it. https://tewaihanga.govt.nz/media/lhhm5gou/new-zealands-infrastructure-challenge-quantifying-the-gap.pdf

Sense Partners. (2024). *Infrastructure costs and urban form. A proof-of-concept model*. https://www.gw.govt.nz/assets/Documents/2024/05/Comparative-cost-of-urban-form.pdf

Shivas, O. (2023). 'Appalled': Kāinga Ora achieves only 10% of target for accessible new homes. Stuff. https://www.stuff.co.nz/pou-tiaki/131392512/appalled-kinga-ora-achieves-only-10-of-target-for-accessible-new-homes

Spoonley, P. (2021). Diversity & Inclusion: A new Aotearoa emerges. *Human Resources*, *26*(1). https://issuu.com/hrnz.magazine/docs/2021_hrnz_autumn_magazine_issuu/s/11864560

Stats NZ. (2021). *Wellbeing statistics 2021*. https://www.stats.govt.nz/information-releases/wellbeing-statistics-2021/

Stats NZ. (2021a). Family and household projections: 2018 (base)–2043. https://www.stats.govt.nz/information-releases/family-and-household-projections-2018base-2043/

Stats NZ. (2021b). *Growth in life expectancy slows*. https://www.stats.govt.nz/news/growth-in-life-expectancy-slows/

Stats NZ. (2022). *National population projections: 2022(base)–2073*. https://www.stats.govt.nz/information-releases/national-population-projections-2022base2073/

Stats NZ. (2023). Aotearoa data explorer. Census year 2023. Territorial Authorities. https://explore.data.stats.govt.nz/vis?tm=census%20night%20address%20SA2%20age&pg=0&snb=2&df[ds]=ds-nsiws-disseminate&df[id]=CEN23_POP_007&d-f[ag]=STATSNZ&df[vs]=1.0&dq=2018%2B2023.999%2B999999%2B001%2B002%2B003%2B076%2B011%2B012%2B013%2B015%2B016%2B017%2B018%2B019%2B020%2B021%2B022%2B023%2B024%2B025%2B026%2B027%2B028%2B029%2B030%2B031%2B032%2B033%2B034%2B035%2B036%2B037%2B038%2B039%2B040%2B041%2B042%2B043%2B044%2B045%2B046%2B047%2B048%2B049%2B050%2B051%2B052%2B053%2B054%2B055%2B056%2B057%2B058%2B059%2B060%2B062%2B063%2B064%2B065%2B066%2B067%2B068%2B069%2B070%2B071%2B072%2B073%2B074%2B075.999.4%2B99%2B-Median.99&to[TIME]=false&ly[rw]=CEN23_CNA_002&ly[cl]=CEN23_YEAR_001%2CCEN23_AGE_001

Stats NZ. (2023a) Aotearoa data explorer. Census year 2023. Population 65+ by region. <a href="https://explore.data.stats.govt.nz/vis?tm=census%20age%20territorial%20au-thority&pg=0&snb=298&df[ds]=ds-nsiws-disseminate&df[id]=CEN23_POP_007&d-f[ag]=STATSNZ&df[vs]=1.0&dq=2023.12%2B13%2B14%2B15%2B16%2B17%2B18%2B01%2B02%2B03%2B04%2B05%2B06%2B07%2B08%2B09.999.4%2B99.99&to[TIME]=false&ly[rw]=CEN23_CNA_002&ly[cl]=CEN23_AGE_001

Stats NZ. (2024). *National population projections: 2024 (base)–2078*. https://www.stats.govt.nz/information-releases/national-population-projections-2024base2078/

Stats NZ. (2024a). Subnational population projections 2018 (base)–2048 update. https://www.stats.govt.nz/information-releases/subnational-population-projections-2018base2048-update/#highest

Stats NZ. (2025). *Net migration falls in 2024*. https://www.stats.govt.nz/news/net-migration-falls-in-2024/

Stats NZ. (2025a). *International migration: February 2025*. https://www.stats.govt.nz/ information-releases/international-migration-february-2025/

Stats NZ. (2025b). *Housing in Aotearoa New Zealand: 2025*. https://www.stats.govt.nz/reports/housing-in-aotearoa-new-zealand-2025/

Stats NZ. (2025c). *Births and Deaths: Year ended March 2025*. https://www.stats.govt.nz/information-releases/births-and-deaths-year-ended-march-2025/

Takenaka, K. (2025). *Al robots may hold key to nursing Japan's ageing population*. Reuters. https://www.reuters.com/technology/artificial-intelligence/ai-robots-may-hold-key-nursing-japans-ageing-population-2025-02-28/

Taylor Baines and Associates. (n.d.). *Zoning*. https://www.tba.co.nz/kete/PDF_files/ ITP310_zoning.pdf

Teng, A., Stanley, J., Jackson, C., Koea, J., Lao, C., Lawrenson, R., Meredith, I., Sika-Paotonu, D., & Gurney, J. (2024). *The growing cancer burden: Age-period-cohort projections in Aotearoa New Zealand 2020–2044. Cancer Epidemiology, 89*,102535. https://pubmed.ncbi.nlm.nih.gov/38280359/

The Treasury. (2024). Analytical Note on New Zealand's demographic trends. https://www.treasury.govt.nz/publications/media-advisory/analytical-note-new-zealands-demographic-trends?utm_source=chatgpt.com

The Treasury. (2025). *He Tirohanga Mokopuna 2025. Statement on the long term fiscal position*. https://www.treasury.govt.nz/publications/ltfp/he-tirohanga-mokopuna-2025#executive-summary

Todd, K. (2025). Central Otago Lakes patients forced to travel for hospital treatments. RNZ. https://www.rnz.co.nz/news/national/567022/central-otago-lakes-patients-forced-to-travel-for-hospital-treatments

Walker, Holly. (2020). Alone together. The risks of loneliness in Aotearoa New Zealand following Covid-19 and how public policy can help. The Helen Clark Foundation and WSP New Zealand. https://helenclark.foundation/publications-and-medias/alone-together/

Warr, L. (2024). Tararua District health services under pressure. *New Zealand Herald*. https://www.nzherald.co.nz/hawkes-bay-today/tararua-news/tararua-district-health-services-under-pressure/D5ZR6YJK5FBHDINMIMYHMSXTAM/

Washington, S., Edwards, E., Fink, A., & Radocha, L. (2025). Inclusive practices for aging in place: Environmental and home modifications for older adults. *The American Journal of Occupational Therapy, 79*(2). https://research.aota.org/ajot/article-abstract/79/2/7902180220/27129/Inclusive-Practices-for-Aging-in-Place?redirectedFrom=fulltext

World Health Organization. (n.d.). *The WHO Age-friendly Cities Framework*. https://extranet.who.int/agefriendlyworld/age-friendly-cities-framework/

World Health Organization. (2007). *Global age-friendly cities: A guide*. https://iris.who.int/server/api/core/bitstreams/08caa73b-5934-4b6b-bffe-d27fbe92e6e7/content

World Health Organization. (2022). *Age Friendly Aotearoa New Zealand. Nelson.* https://extranet.who.int/agefriendlyworld/network/nelson/?utm_source=chatgpt.com

World Health Organization. (2023). *National programmes for age-friendly cities and communities:* A guide. https://iris.who.int/server/api/core/bitstreams/a0b52f70-4793-478f-a33d-b969dc3f6a23/content

Wright, J. (2023). Inside Japan's long experiment in automating elder care. *MIT Technology Review*. https://www.technologyreview.com/2023/01/09/1065135/japan-automating-eldercare-robots/

WSP. (2020). Feeling lonely? Do you know it's a young person thing? https://www.wsp.com/en-au/insights/feeling-lonely-do-you-know-its-a-young-person-thing

WSP. (2023). The new frontier of digital health infrastructure. https://www.wsp.com/en-nz/insights/the-new-frontier-of-digital-health-infrastructure

WSP. (2023a). Clean growth for prosperous, people-centred cities. https://www.wsp.com/en-nz/insights/clean-growth-for-prosperous-people-centered-cities

WSP. (2023b). *The 30-minute rural community*. WSP United Kingdom. https://www.wsp.com/en-gb/insights/lets-think-differently-about-rural-mobility

WSP & AA. (2023). Insights into older driver safety and mobility. https://www.aa.co.nz/content/dam/nzaa/uploads/Infographics-Insights-into-older-driver-safety-mobility-AA-Research-Foundation-2023.pdf

Yadav, U. (2021). *Health's insatiable demand for expenditure*. Berl. https://berl.co.nz/economic-insights/healths-insatiable-demand-expenditure

Yadav, U. (2024). Home ownership and unequal ageing. Will the New Zealand Superannuation model work for a nation of renters? Economic Insights.

Berl. https://berl.co.nz/economic-insights/home-ownership-and-unequal-ageing#:~:text=Superannuation%20%28NZ%20Super%29%20is%20 an,equivalised%20household%20disposable%20income%2C%2065+

Yoon, C.-J. (2020). Between the ideal and reality of city resizing policy: Focused on 25 cases of compact city plans in Japan. *Sustainability*, *12*(3), 989. https://www.mdpi.com/2071-1050/12/3/989?utm_source=chatgpt.com

Zhang, C., Qing, N., & Zhang, S., (2021). The impact of leisure activities on the mental health of older adults: The mediating effect of social support and perceived stress. *Journal of Healthcare Engineering*, 6264447. https://onlinelibrary.wiley.com/doi/full/10.1155/2021/6264447?utm_source=chatgpt.com





