

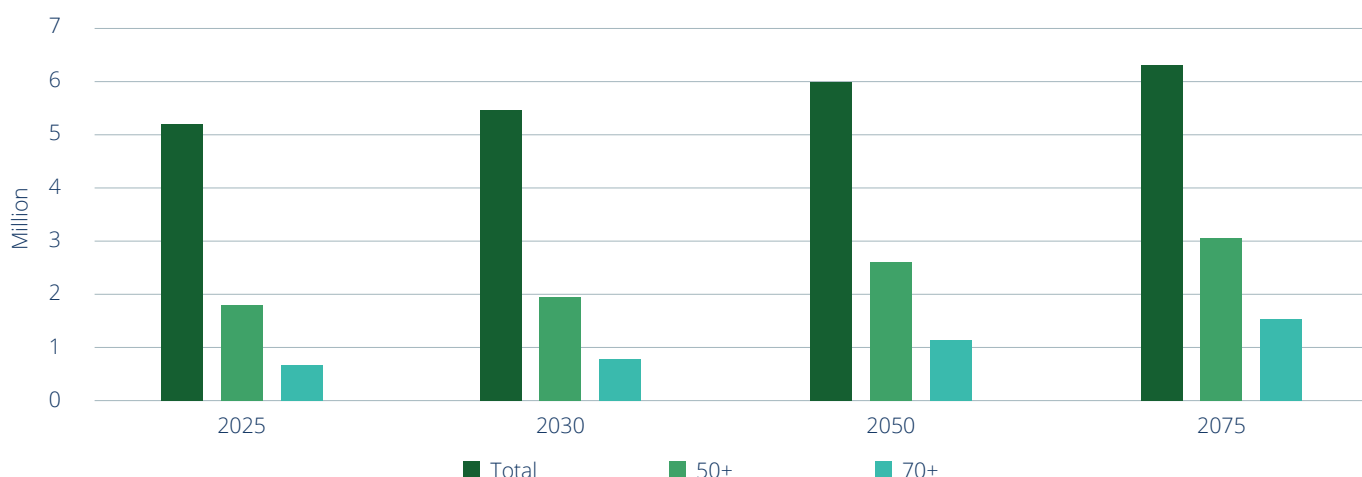
DEMOGRAPHIC TRENDS

New Zealand's population is projected to grow steadily over the coming decades, increasing by 15% from 5.2 million in 2025 to 6.0 million by 2050, and by a further 6% to reach 6.3 million by 2075 (*Figure 1*). New Zealanders currently have an average life expectancy of 83.1 years, which is expected to rise to 90.5 years by 2075, an increase of more than 9%.

The proportion of New Zealanders aged 50 years or older is set to rise significantly. In 2025, this group of 1.8 million people represents 35% of the total population. By 2075, this will increase to 48%, with numbers increasing to 3.0 million (*Figure 1*).

The most pronounced demographic shift will be among those aged 70 years or older, whose numbers will rise from more than 627,000 in 2025 to nearly 1.5 million in 2075. While this represents a growth of 142% in absolute numbers, a more telling statistic is their increasing share of the total population. In 2025, those aged 70+ made up 12% of New Zealand's 5.2 million people, but by 2075, they will represent 24% of a larger 6.3 million population. This shift reflects a 99% relative increase in their share of the total population, underscoring the significant ageing of New Zealand's demographic profile.

Figure 1. Population projections for New Zealand from 2025 to 2075^[1]



CENTRALISED DATABASES FOR FRACTURES AND EPIDEMIOLOGY

New Zealand has made substantial progress in the systematic collection and use of patient-level data to improve outcomes following fragility fractures. Two complementary registries underpin this work: *the Australian and New Zealand Hip Fracture Registry* (ANZHFR) ^[2] and the *Australian and New Zealand Fragility Fracture Registry* (ANZFFR) ^[3].

The ANZHFR was established following the publication of the *Australian and New Zealand Guideline for Hip Fracture Care* in 2014 ^[4]. The first patient-level audit was released in 2016 ^[5], coinciding with the launch of the inaugural *Hip Fracture Care Clinical Care Standard* ^[6]. The 2016 report ^[5] included data from 2,925 patients across 21 hospitals in Australia and 594 patients from four hospitals in New Zealand. Since then, registry participation has expanded

markedly. The 10th ANZHFR Annual Report ^[7], published in 2025, included data on 15,387 patients from 84 Australian hospitals and 3,737 patients from 22 hospitals in New Zealand. The registry benchmarks care across the pre-operative, operative, post-operative, and rehabilitation phases of hip fracture management, tracking outcomes up to 120 days post-fracture. It provides a powerful mechanism to monitor adherence to the bi-national *Hip Fracture Care Clinical Care Standard*, which was updated in 2023 ^[8].

However, as the ANZHFR is limited to patients with hip fractures, a complementary system was needed to support quality improvement in secondary fracture prevention for all fragility fractures. This led to the launch of the ANZFFR in 2022 ^[3]. The registry captures detailed, patient-level data aligned with the internationally recognised 5iQ model of care (Identification, Investigation, Information, Intervention, Integration, and Quality), enabling systematic tracking of Fracture Liaison Service (FLS) performance across a broader patient population.

FLS teams in New Zealand are benchmarked both nationally and internationally, against the National Clinical Standards for FLS ^[9] and the International Osteoporosis Foundation's (IOF) *Capture the Fracture® Best Practice Framework* ^[10]. Since its launch, the New Zealand arm of the ANZFFR has enabled FLS teams to monitor their performance against the National Clinical Standards in real time. The registry has rapidly scaled, capturing 55% of the estimated national fragility fracture caseload ^[11] in its first year and 72% in its second ^[12], marking the fastest rate of patient identification ever achieved by a fragility fracture registry globally.

The second *ANZFFR Annual Report* (March 2025) highlights encouraging outcomes ^[12]:

Within 12 weeks of their fracture:

- **99%** of patients received a **fracture risk assessment**.
- **96.5%** received a **falls risk assessment**.
- **52.5%** of those recommended for DXA scanning **had the scan** completed.
- **85% received** written or digital **information about bone health** and/or falls prevention.

Within 16 weeks:

- **90%** of patients received **follow-up care**.
- **82%** of patients' primary care providers received a **long-term care plan**.

At 52 weeks:

- **Very high treatment adherence** was observed.
- **Only 3.3% experienced a refracture**, an encouraging result when compared internationally.

Together, the ANZHFR and ANZFFR provide a comprehensive, data-driven framework to improve the quality of care and reduce refracture risk for people with fragility fractures in New Zealand. These registries not only enable benchmarking against national and international clinical standards but also drive accountability and support continuous improvement in clinical practice. A summary of the most recent Annual Reports from the ANZHFR and ANZFFR is provided in *Table 1*.

Table 1. Status of centralised fracture databases in New Zealand

Is a centralised database established?	Two registries: ANZHFR and ANZFFR
Level of database coverage	National
Hip fracture records documented per year	3,668 (ANZHFR: Jan-Dec 2024)
Percentage of hip fractures treated surgically	97
All fracture records documented per year	15,939 (ANZFFR: Jul 2023-Jun 2024)
Percentage of all fractures treated surgically	Not documented
Age range and gender of patients in database	50 - 75+ years for both males and females

HEALTHCARE COSTS ASSOCIATED WITH FRAGILITY FRACTURES

Average direct hospital costs for treating osteoporotic hip fractures (USD)	Average indirect hospital costs for treating osteoporotic hip fractures (USD)	Average bed days for hip fractures
34,370*	No data	20*

*Best available estimates

CLINICAL SPECIALTY RESPONSIBLE FOR MANAGEMENT OF OSTEOPOROSIS

Osteoporosis is primarily managed by primary care physicians, while specialist input is provided by rheumatologists, orthopaedic surgeons, gynaecologists, endocrinologists, and geriatricians. Osteoporosis is not recognised as a standalone medical specialty. However, it is a recognised component of specialty medical training, particularly for endocrinology trainees.

PATIENT SUPPORT ORGANISATIONS

Osteoporosis New Zealand (ONZ) is the national patient organisation dedicated exclusively to improving bone health and reducing the burden of osteoporosis in New Zealand. Operating at the national level, ONZ is a disease-specific charity focused on public awareness, policy advocacy, education, and support for individuals affected by osteoporosis and fragility fractures.

ONZ plays a strategic role in shaping national health policy, advocating for systematic approaches to fracture prevention and improved post-fracture care. The organisation is active in capacity building and professional education, supporting health system reforms aligned with international best practice. ONZ is also a key contributor to research and quality improvement efforts, most notably through its leadership role in the *Australian and New Zealand Fragility Fracture Registry (ANZFFR)* ^[3], which benchmarks Fracture Liaison Services across the country against national and international clinical standards ^[9,10].

Through its consumer-facing platform, *Bone Health NZ* ^[13], ONZ engages directly with individuals and families, offering accessible resources, educational materials, and peer support initiatives to empower people to understand and manage their bone health. By integrating community support with clinical advocacy and research, Osteoporosis New Zealand serves as a bridge between patients, clinicians, and policymakers, driving forward a national strategy for better bone health. Read more at www.osteoporosis.org.nz.

OSTEOPOROSIS AS A DOCUMENTED NATIONAL HEALTH PRIORITY (NHP)

Osteoporosis was officially recognised as a national health priority in New Zealand in 2017 with the launch of the *Live Stronger for Longer* programme ^[14]. Led by the Accident Compensation Corporation (ACC), the Crown Entity responsible for injury prevention, the programme is supported by a coalition of government and public sector partners, including the Ministry of Health (MoH), Health Quality and Safety Commission New Zealand (HQSC), Osteoporosis New Zealand (ONZ), and various components of the wider health system.

At the heart of *Live Stronger for Longer* is its flagship initiative: the development and expansion of a national network of world-class Fracture Liaison Services (FLS). These services deliver systematic secondary fracture

prevention to individuals who have sustained a fragility fracture and are supported by a comprehensive national FLS quality improvement programme, delivered by ONZ. This programme enables benchmarking against the National Clinical Standards for FLS ^[9] and the *International Osteoporosis Foundation's Capture the Fracture® Best Practice Framework* ^[10], driving continuous improvements in service delivery and patient outcomes.

While the Ministry of Health's logo appears on the *Live Stronger for Longer* website, it is unclear whether this constitutes a formal government mandate. Given the unique structure of New Zealand's health system, where ACC and MoH have complementary but distinct responsibilities, osteoporosis has not been formally mandated as a Ministry-led health priority. Therefore, for the purposes of this report, it is classified as not formally mandated by the government.

Nonetheless, *Live Stronger for Longer* is underpinned by a well-defined action plan. Since 2016, a series of ACC-developed business cases have shaped the programme's strategic and operational direction, supporting targeted investment in public health initiatives focused on falls prevention, nutrition, and early risk identification. A key component of this approach is *Know Your Bones™* (www.knowyourbones.org.nz), an online self-assessment tool provided by Osteoporosis New Zealand through its consumer-facing platform, *Bone Health NZ* ^[13]. This resource empowers individuals to better understand their personal fracture risk and take proactive steps to engage with bone health services.

Patient involvement extends beyond the NHP framework into the broader national quality improvement ecosystem. Both the *Australian and New Zealand Hip Fracture Registry (ANZHFR)* ^[12] and the *Australian and New Zealand Fragility Fracture Registry (ANZFFR)* ^[3] are essential elements of this work, each guided by independent steering groups that include patient and consumer representatives. These registries ensure the patient voice is embedded in the design, delivery, and monitoring of fracture prevention services across the country.

AVAILABILITY AND REIMBURSEMENT OF MEDICATION

As shown in *Table 2*, a range of osteoporosis treatments are available in New Zealand. The 2017 national clinical guidance ^[15] states that bisphosphonates are first-line treatment, and that oestrogen therapy may be considered as first-line therapy for women within 10 years of menopause.

Treatment for osteoporosis in New Zealand may be fully reimbursed through the public health system, private insurance, or a co-payment arrangement, depending on the patient's individual circumstances and insurance coverage. However, reimbursement is subject to specific clinical criteria, which may include the presence of a prior fracture, bone mineral density results, fracture risk thresholds, and whether the treatment is for primary or secondary prevention. Additional conditions may apply, such as limitations to first-line therapies and the requirement for prior authorisation.

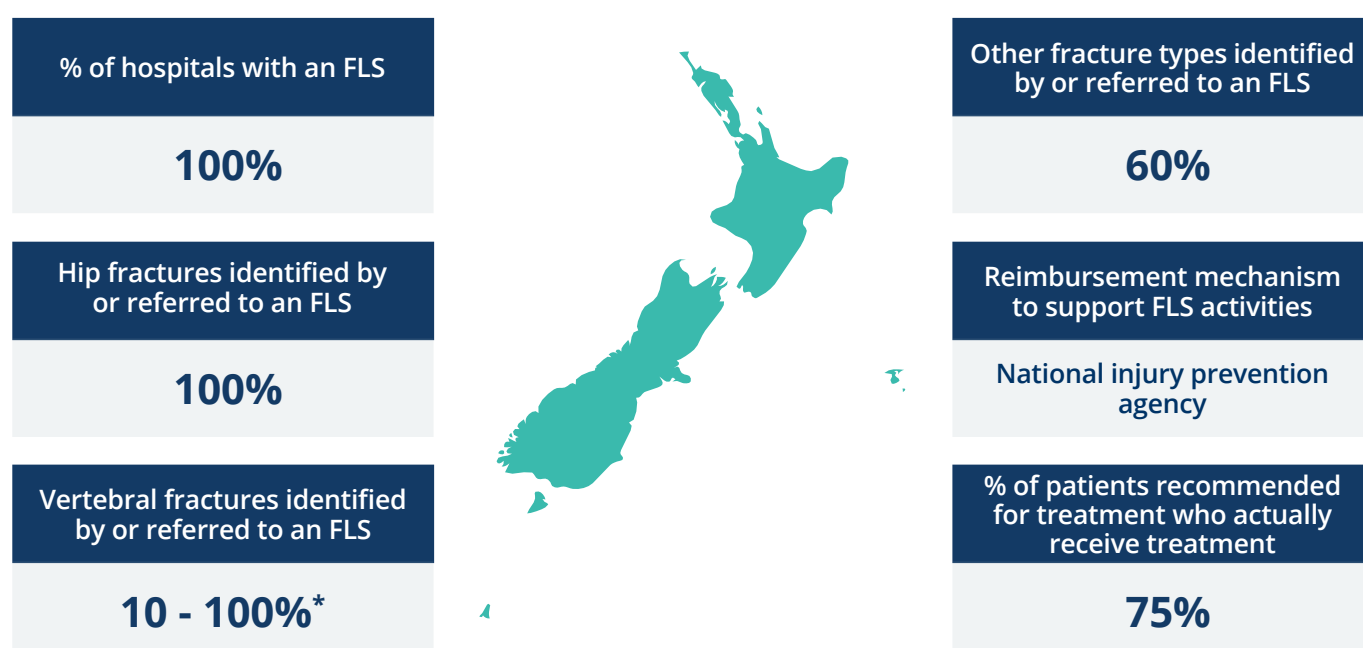
Reimbursement policy can, at times, constrain clinical decision-making and interfere with what physicians might otherwise recommend as optimal treatment for their patients. In particular, two osteoporosis treatments, teriparatide and denosumab, are subject to PHARMAC's Special Authority criteria. Notably, in January 2025, PHARMAC broadened access to denosumab, improving treatment availability for individuals with osteoporosis and for those with hypercalcaemia related to malignancy.*

*See: <https://www.pharmac.govt.nz/news-and-resources/consultations-and-decisions/decision-to-widen-access-to-denosumab-for-osteoporosis-and-people-with-high-calcium-levels-associated-with-cancer>.

Table 2. Availability and reimbursement of osteoporosis treatments in New Zealand

Treatment	Available	Reimbursed	% Reimbursed
Risedronate	X	X	100%
Alendronate	X	X	100%
Ibandronate			
Zoledronic acid	X	X	100%
Clodronate			
Pamidronate	X	X	100%
Raloxifene	X	X	100%
Bazedoxifene			
Denosumab	X	X	100%
Strontium Ranelate			
Teriparatide	X	X	100%
PTH (1-84)			
Abaloparatide			
Romosozumab			
Vitamin D/Calcium supplements	X	X	100%
Calcitonin	X	X	100%
Hormone Replacement Therapy	X	X	100%
Testosterone	X	X	100%
Alfacalcidol	X	X	100%
Calcidiol			
Calcitriol	X	X	100%
Tibolone	X		

FRACTURE LIAISON SERVICES (FLS) REIMBURSEMENT AND AVAILABILITY



* Data from the ANZFFR reports significant variation in identification rates of vertebral fractures between FLS.

WAITING TIME FOR HIP SURGERY

Average waiting time for hip surgery after hip fracture	1 - 2 days
% of hip fractures surgically managed	> 90%

GUIDELINES FOR OSTEOPOROSIS MANAGEMENT

In 2017, Osteoporosis New Zealand published the *Guidance on the Diagnosis and Management of Osteoporosis in New Zealand*^[15]. The guideline covers the management of osteoporosis in postmenopausal women, men, individuals with glucocorticoid-induced osteoporosis (GIOP), and those who have sustained fragility fractures.

While the guidelines offer detailed recommendations on fracture risk assessment, including factors such as prior fracture, age, BMD, FRAX®, and lateral DXA of the spine or spinal x-ray to identify vertebral fractures, they do not include strategies for population-based screening. The guidance also sets out criteria for initiating treatment based on similar clinical risk factors.

The guidance is compatible with Pharmac funding criteria. The guidelines were developed without direct patient involvement. Additional details on the development of these guidelines are included in *Table 3*.

Generic zoledronic acid is a proven, safe, and cost-effective treatment for the prevention of future fractures and is publicly funded by Pharmac. However, access to funded infusion services remains inconsistent across New Zealand. In some regions, patients are required to pay USD 60 – USD 150 out of pocket for administration costs, an expense that can pose a substantial barrier for older adults living on a fixed retirement income. Achieving national consistency in both the availability of the medication and its delivery is essential to ensure equitable access to this important therapy.

Table 3. Development of clinical guidelines for the management of osteoporosis in New Zealand





Systematic literature review undertaken	Yes
Recommendations	Yes
Stakeholder involvement	Yes
External review	No
Procedure for update defined	An update is planned in 2025 and will consider the APCO Framework
Economic analysis	No
Editorial independence	Yes

FRACTURE RISK ASSESSMENT TOOLS

New Zealand utilises multiple tools for assessing fracture risk, including FRAX®, the *Garvan Fracture Risk Calculator*, and *Know Your Bones™*. Among these, FRAX® is the most widely used tool nationwide. When using FRAX® to determine whether treatment is indicated, a fixed probability threshold is commonly applied, often in combination with a bone mineral density threshold. This approach is used for both men and women. Age-dependent probability thresholds are not currently incorporated into treatment decision-making.

ACCESS TO DXA AND/OR ULTRASOUND AND REIMBURSEMENT

DXA is available in New Zealand.

	Waiting time (d)	No data
	Cost (USD)	80 - 200
	Is it reimbursed?	Yes, however, there is considerable regional variation in access to publicly funded DXA.
	Is reimbursement a barrier to accessing treatment?	In localities with limited access to publicly funded DXA, this can be a barrier to treatments that require Special Authority Approval by Pharmac.

No data was provided on access to ultrasound in New Zealand.

QUALITY INDICATORS

Level	Title	Topics covered	Frequency of reporting
National	Hip Fracture Clinical Care Standard: https://www.safetyand-quality.gov.au/publications-and-resources/resource-library/hip-fracture-clinical-care-standard-2023 ^[8]	Seven Quality statements with associated indicators	Annual Reports published. Real time reporting to each hospital through local dashboard within the ANZ Hip Fracture Registry: https://anzhfr.org/ . Annual Reports are published in September.
National	Clinical Standards for Fracture Liaison Services in New Zealand (second edition): https://osteoporosis.org.nz/wp-content/uploads/2024/09/ONZ-FLS-Clinical-Standards-Sept-2021.pdf ^[9]	Six Quality statements with associated Key Performance Indicators	Annual Report published. Real time reporting to each FLS through local dashboard within the ANZ Fragility Fracture Registry: https://fragilityfracture.co.nz/ . Annual Reports are published in March.



OVERVIEW OF OSTEOPOROSIS IN NEW ZEALAND

Since the release of *BoneCare* in December 2012 ^[16], New Zealand has made significant strides in improving bone health and reducing the burden of fragility fractures. This initiative marked a turning point in the nation's approach to osteoporosis by introducing a unified, systematic framework in a field that had previously been fragmented and inconsistent.

KEY ACHIEVEMENTS SINCE *BONECARE* 2020

The following is summarised in a 2022 *Archives of Osteoporosis* publication ^[17] and the 2025 *Osteoporosis New Zealand Bone Health Briefing* document ^[18].

FORMATION OF A NATIONAL ALLIANCE

Between 2012 and 2016, various organisations collaborated informally to advance the goals of *BoneCare* 2020. This collaboration was formalised in 2017 with the launch of the *Live Stronger for Longer* programme, led by the *Accident Compensation Corporation (ACC)* and supported by the Ministry of Health, Health Quality and Safety Commission, Osteoporosis New Zealand, and other public sector partners. This marked the beginning of a nationally coordinated effort to address bone health.

ADVANCEMENTS IN HIP FRACTURE CARE

Major progress has been made in standardising hip fracture care. *The Australian and New Zealand Guideline for Hip Fracture Care* was published in 2014, followed by the trans-Tasman *Hip Fracture Care Clinical Care Standard* in 2016. The publication of the first patient-level audit from the *Australian and New Zealand Hip Fracture Registry (ANZHFR)* further enabled benchmarking and improvement of hip fracture care across the country.



STRENGTHENING SECONDARY FRACTURE PREVENTION

Key developments include the publication of the *Clinical Standards for Fracture Liaison Services (FLS)* in 2016 and again in 2021, establishing a robust framework for systematic secondary fracture prevention. The launch of the New Zealand arm of the *Australian and New Zealand Fragility Fracture Registry (ANZFFR)* in 2022 has provided real-time benchmarking for FLS teams against national and international standards, further supporting service improvement and accountability.

LOOKING AHEAD: STRONGER TOGETHER – A NATIONAL STRATEGY FOR BONE HEALTH

In 2025, Osteoporosis New Zealand will publish *Stronger Together: A Collaborative Strategy for Bone Health in New Zealand*, a comprehensive national strategy designed to guide efforts across the life course. The strategy outlines three primary goals:

- **Sustaining excellence in Care:** Maintain and strengthen support for New Zealand's world-class FLS Teams that care for individuals with fragility fractures.
- **Preventing First Fractures:** Develop a clinically and cost-effective national primary fracture prevention programme to reduce the risk of first fragility fractures in older adults.
- **Promoting Lifelong Bone Health:** Raise public awareness and deliver education across all age groups on building and maintaining strong bones, from achieving peak bone mass in youth to preserving bone health throughout adulthood and older age.

Achieving these goals will require a coordinated, multi-sector approach, from acute care and secondary prevention through to early-life interventions that build the foundation for lifelong bone health.

This integrated approach, combining clinical excellence, public health action, and education, has the potential to significantly reduce the personal, societal, and economic burden of osteoporosis and fragility fractures across New Zealand.

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This document highlights the key findings for New Zealand, published in "The Asia Pacific Regional Audit: Epidemiology, costs and burden of osteoporosis in 2025". View the complete report at: <https://www.osteoporosis.foundation/asia-pacific-audit-2025>

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