



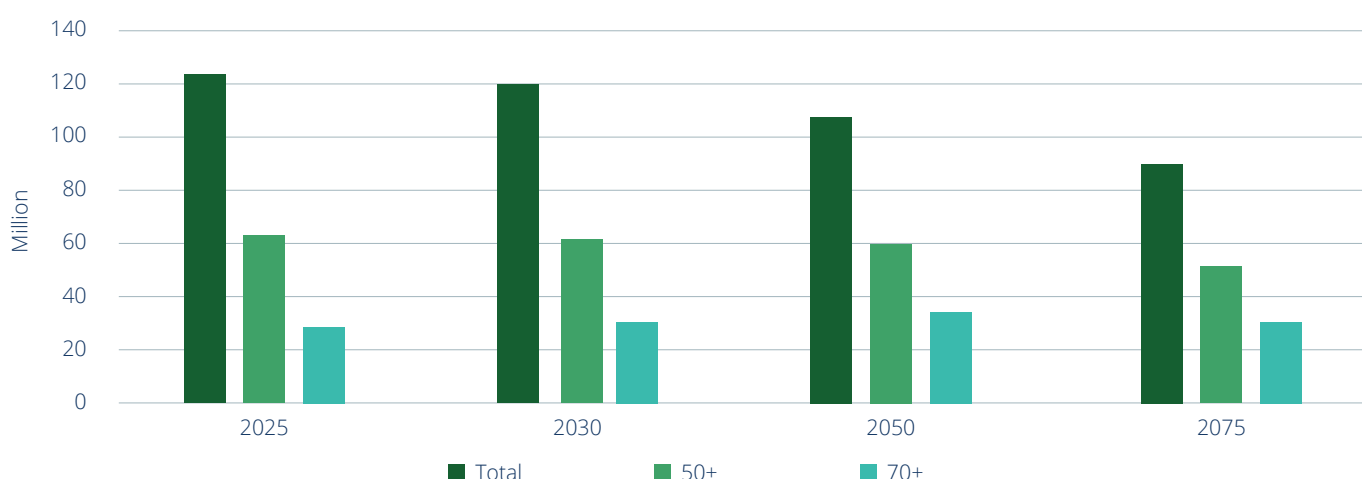
## DEMOGRAPHIC TRENDS

Japan's population is expected to decline sharply in the coming decades, decreasing by 13% from 122.7 million in 2025 to 106.2 million by 2050. The decline is projected to accelerate in the second half of the century, with a further 17% drop to 87.8 million by 2075 (*Figure 1*). Japanese currently have an average life expectancy of 85.3 years, which is expected to rise to 91.8 years by 2075, an increase of more than 7%.

Although the number of Japanese aged 50 years or older is projected to decline from 61.2 million in 2025 to 49.9 million by 2075, their share of the total population will rise gradually from 50% to 57% over the same period (*Figure 1*).

While the number of people aged 70 years or older will decline slightly from 29.2 million in 2025 to 29.0 million by 2075, their share of the total population will rise from 24% to 33% over the same period, marking a 39% relative increase.

**Figure 1. Population projections for Japan from 2025 to 2075 <sup>[1]</sup>**



## CENTRALISED DATABASES FOR FRACTURES AND EPIDEMIOLOGY

|  |   |
|--|---|
| Is a centralised database established?         | Yes                                     |
| Level of database coverage                     | National                                |
| Hip fracture records documented per year       | 170,000                                 |
| Percentage of hip fractures treated surgically | 100                                     |
| All fracture records documented per year       | 363,000                                 |
| Percentage of all fractures treated surgically | 100                                     |
| Other fracture records documented per year     | 190,000                                 |
| Percentage of all fractures treated surgically | 100                                     |
| Age range and gender of patients in database   | 40-75+ years for both males and females |

Although the centralised fracture database collects data on various types of fractures, it only includes cases that involve surgical intervention. The other fractures include wrist, leg, humerus, vertebrae, clavicle, fingers, hands, elbows, knees, and other sites, provided surgery is performed. The Japanese Orthopaedic Association National Registry (JOANR) specifically records surgical procedures within the orthopaedic field. Additionally, the Fragility Fracture Network-Japan maintains a separate registry focused on hip fracture cases that require emergency surgery. For more information, visit <https://www.joanr.org/>.

## HEALTHCARE COSTS ASSOCIATED WITH FRAGILITY FRACTURES

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| 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 |
|---|---|------------------------------------|
| 10,000  | 16,000  | 15*                                |

\*15 days in acute care hospitals. Patients can move to rehabilitation facilities and stay there up to 90 days, if necessary.

## CLINICAL SPECIALTY RESPONSIBLE FOR MANAGEMENT OF OSTEOPOROSIS

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

## PATIENT SUPPORT ORGANISATIONS

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The Japan Bone Health Society is a national-level patient organisation dedicated to osteoporosis. Focused exclusively on this single disease, the Society is actively involved in policy advocacy, particularly through public education and awareness campaigns aimed at the general population.

It also plays a key role in capacity building and education, offering lectures in local communities across Japan. Peer support is provided through regional counselling services, helping individuals manage their condition more effectively. In addition, the Society engages in research and development activities in collaboration with the Japan Osteoporosis Foundation.

For more information, visit: <https://www.jpof.or.jp/general/society/>.

## OSTEOPOROSIS AS A DOCUMENTED NATIONAL HEALTH PRIORITY (NHP)

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Osteoporosis was officially recognised as a National Health Priority (NHP) in Japan in 2023 under the “*Health Japan 21*” programme, announced by the Ministry of Health, Labour and Welfare. Documentation relating to this initiative is currently only available in Japanese (<https://www.mhlw.go.jp/content/10904750/001049796.pdf>). The NHP is mandated solely by the government and not by any other governing body.

An action plan accompanies the NHP, setting a target to increase the osteoporosis medical check-up rate to 15% by 2032. The plan is supported by public health initiatives under the *Health Japan 21* framework, which include strategies related to nutrition (particularly vitamin D and calcium intake), physical activity, and fall prevention. At present, there is no formal patient involvement in the development or implementation of the NHP.

## AVAILABILITY AND REIMBURSEMENT OF MEDICATION

As shown in *Table 1*, a range of osteoporosis treatments are available in Japan. There are no designated first line treatments in Japan.

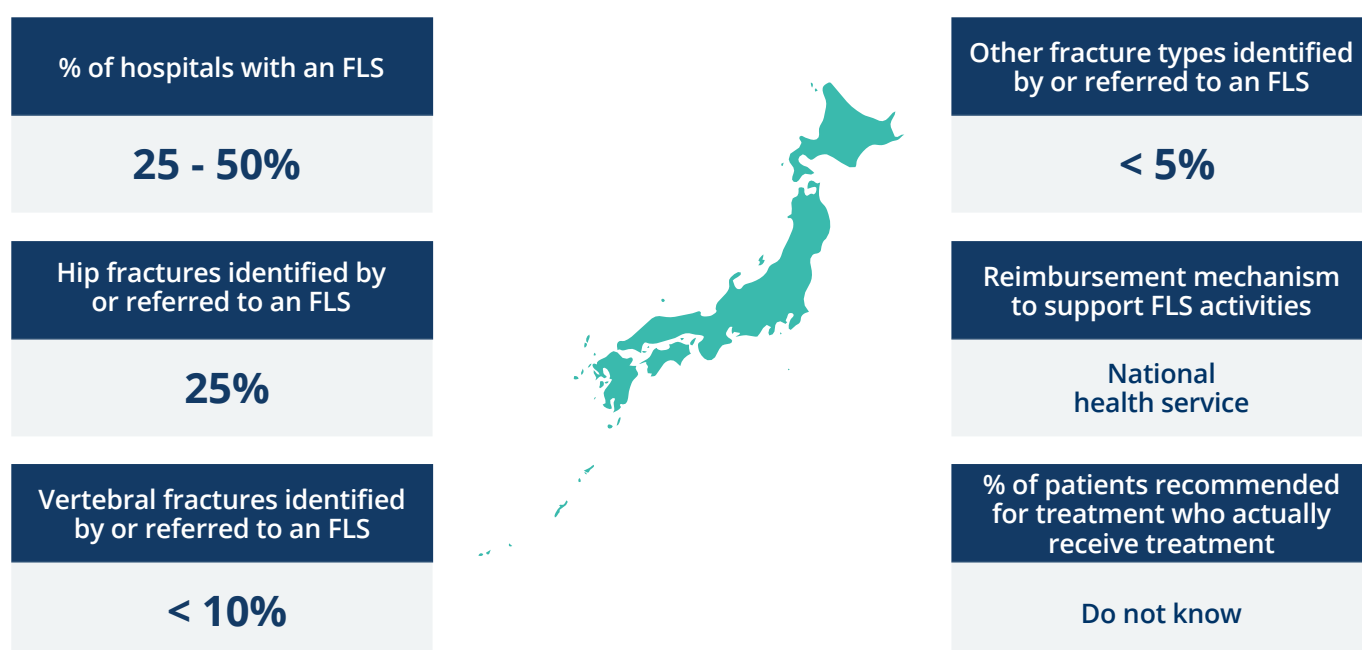
Treatment is reimbursed in full by the national health system. Reimbursement is subject to specific criteria, including bone mineral density and indication for secondary fracture prevention.

In some cases, reimbursement policies may conflict with physicians’ preferred treatment plans. Teriparatide, abaloparatide, romosozumab, and denosumab are reimbursed when prescribed for cases of severe osteoporosis, typically characterised by very low bone mineral density or the presence of osteoporotic fractures.

**Table 1. Availability and reimbursement of osteoporosis treatments in Japan**

| Treatment                     | Available | Reimbursed | % Reimbursed |
|-------------------------------|-----------|------------|--------------|
| Risedronate                   | X         | X          | 100%         |
| Alendronate                   | X         | X          | 100%         |
| Ibandronate                   | X         | X          | 100%         |
| Zoledronic acid               | X         | X          | 100%         |
| Clodronate                    |           |            |              |
| Pamidronate                   |           |            |              |
| Raloxifene                    | X         | X          | 100%         |
| Bazedoxifene                  | X         | X          | 100%         |
| Denosumab                     | X         | X          | 100%         |
| Strontium Ranelate            |           |            |              |
| Teriparatide                  | X         | X          | 100%         |
| PTH (1-84)                    |           |            |              |
| Abaloparatide                 | X         | X          | 100%         |
| Romosozumab                   | X         | X          | 100%         |
| Vitamin D/Calcium supplements | X         |            | 0%           |
| Calcitonin                    | X         | X          | 100%         |
| Hormone Replacement Therapy   |           |            |              |
| Testosterone                  |           |            |              |
| Alfacalcidol                  | X         | X          | 100%         |
| Calcidiol                     |           |            |              |
| Calcitriol                    | X         | X          | 100%         |
| Tibolone                      |           |            |              |

## FRACTURE LIAISON SERVICES (FLS) REIMBURSEMENT AND AVAILABILITY



## GUIDELINES FOR OSTEOPOROSIS MANAGEMENT

In 2015, the *Japan Osteoporosis Society (JOS)*, *Japan Osteoporosis Foundation (JOF)*, and the *Japanese Society for Bone and Mineral Research (JSBMR)* jointly developed the *Japanese Guidelines for the Prevention and Treatment of Osteoporosis 2015*. The guidelines are available in Japanese from this link: <http://www.josteo.com/>.

The guidelines include recommendations for population-based screening, notably encouraging routine medical check-ups specifically focused on bone health. They provide a comprehensive framework for fracture risk assessment, considering factors such as prior fractures, age, bone mineral density (BMD), FRAX® scores, and family history of osteoporosis. The assessment criteria are compatible with existing reimbursement policies.

Treatment criteria include prior fracture, age, BMD, FRAX® score, glucocorticoid-induced osteoporosis, and family history of the disease. These criteria are also aligned with reimbursement policies. The guidelines were developed without direct patient involvement. Additional details on the development of these guidelines are included in *Table 2*.

**Table 2. Development of clinical guidelines for the management of osteoporosis in Japan**





|   |  |
|---|--|
| Systematic literature review undertaken | No   |
| Recommendations                         | No   |
| Stakeholder involvement                 | No   |
| External review                         | The guidelines been reviewed by osteoporosis experts |
| Procedure for update defined            | The guideline is in the process of being updated     |
| Economic analysis                       | No   |
| Editorial independence                  | Yes  |

## WAITING TIME FOR HIP SURGERY





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

## ACCESS TO DXA AND/OR ULTRASOUND AND REIMBURSEMENT

DXA is available in Japan.

|   |  |         |
|---|--|---------|
|  | Waiting time (d)                                   | 0       |
|  | Cost (USD)   | 24 - 30 |
|  | Is it reimbursed?                                  | Yes     |
|  | Is reimbursement a barrier to accessing treatment? | No      |

Quantitative ultrasound is available in Japan.

|   |  |     |
|---|--|-----|
|  | Waiting time (d)                                   | 0   |
|  | Cost (USD)   | 6   |
|  | Is it reimbursed?                                  | Yes |
|  | Is reimbursement a barrier to access to treatment? | No  |

## FRACTURE RISK ASSESSMENT TOOLS

FRAX® is widely used in Japan to assess fracture risk. The decision to initiate treatment is based on a fixed probability threshold, an age-dependent probability threshold, and a combination of FRAX® scores and BMD values. This approach is applied to both men and women.

## QUALITY INDICATORS

| Level    | Title   | Topics covered  | Frequency of reporting |
|----------|---|---|------------------------|
| National | Reimbursement scheme                                    | Hip fracture  | Annually               |
| National | Guidelines for Prevention and Treatment of Osteoporosis | Osteoporosis and secondary prevention of fragile fracture | Don't know             |





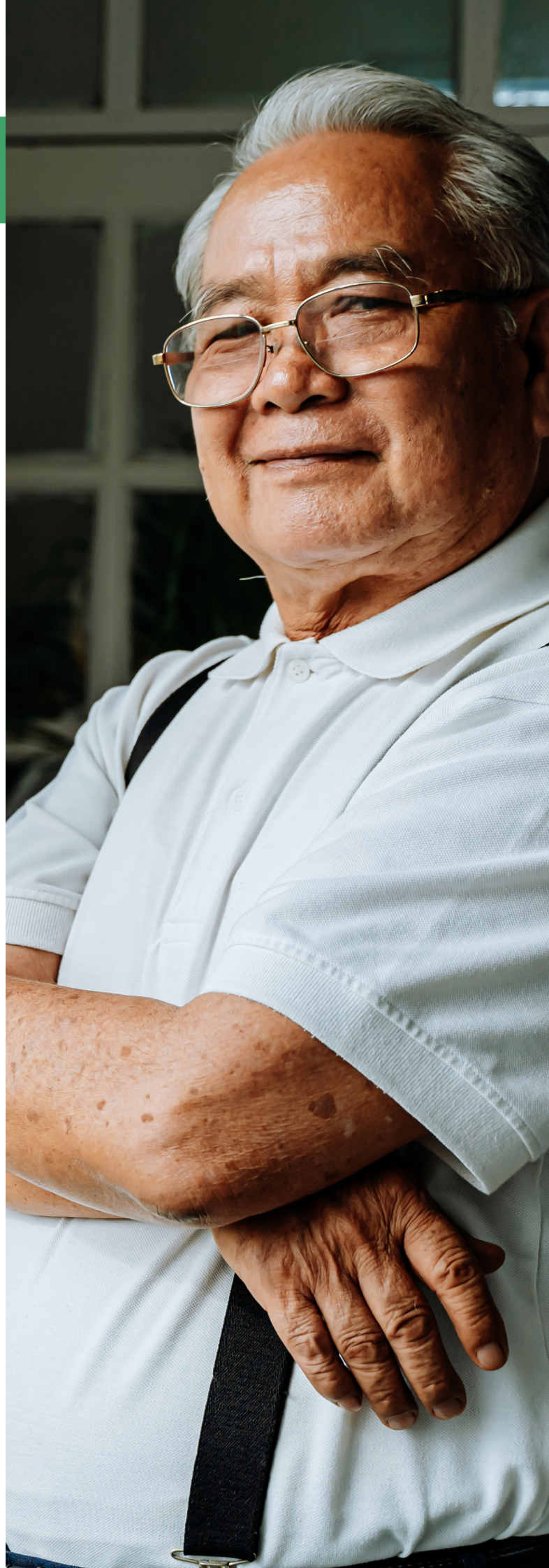
## OVERVIEW OF OSTEOPOROSIS IN JAPAN

The *Japanese Orthopaedic Association National Registry (JOANR)* systematically captures data on all orthopaedic surgical procedures performed nationwide. Complementing this effort, the *Fragility Fracture Network-Japan (FFN-J)* oversees a specialised registry focused exclusively on emergency surgical interventions for hip fractures. Established by FFN-J in 2017, the *Japan National Hip Fracture Database (JNHFD)* has yielded vital insights into the characteristics and clinical needs of hip fracture patients. The data have consistently highlighted the importance of timely surgical intervention and coordinated post-fracture care.

These evidence-based findings played a pivotal role in shaping health policy. In April 2022, the Japanese Ministry of Health, Labour and Welfare introduced a new reimbursement model that incentivises early surgery, within 48 hours of injury, and mandates comprehensive secondary fracture prevention<sup>[2]</sup>. This forward-looking policy is driving a significant transformation in fragility fracture care across Japan. It is also accelerating the nationwide implementation of FLS, thereby strengthening osteoporosis management and improving long-term patient outcomes.

Despite these efforts, Japan still lacks a national registry system for osteoporotic fractures that are managed non-surgically. This represents a significant data gap that may limit the effectiveness of comprehensive monitoring and prevention strategies.

The Ministry of Health, Labour and Welfare is currently implementing the third phase of the national health promotion initiative, *Health Japan 21*, which aims to raise awareness of bone health among the general population. As part of this initiative, a national guideline on osteoporosis is currently being updated to reflect the latest evidence and priorities.



Nutritional guidance also plays an important role in prevention. The *Dietary Reference Intakes for Japanese* (2020) recommend increased calcium intake and sufficient vitamin D consumption as key measures to prevent osteoporotic fractures and reduce fall risk.

To address both primary and secondary prevention, the *Japan Osteoporosis Society* has been promoting the *Osteoporosis Liaison Service (OLS)* model since 2011. OLS encompasses FLS, primary fracture prevention initiatives, and public education campaigns. Its core mission is “to prevent the first fracture and to stop the chain reaction of subsequent fractures.”

Meanwhile, the *Japan Osteoporosis Foundation (JOF)* plays a central role in public awareness, organising annual World Osteoporosis Day events throughout Japan. The Foundation also supports patient advocacy efforts, including the activities of the *Japan Bone Health Society*.

## REFERENCES

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1. US Census Bureau International Database (IDB) Website. 2025. [https://www.census.gov/data-tools/demo/idb/#/dashboard?dashboard\\_page=country&COUNTRY\\_YR\\_ANIM=2025](https://www.census.gov/data-tools/demo/idb/#/dashboard?dashboard_page=country&COUNTRY_YR_ANIM=2025). Accessed 22 May 2025.
2. Yamamoto N, Sawaguchi T, Matsushita T, Katoh N, Arai H, Shirahama M, Endo N, Hagino H, Mori S, Teramoto T, Ookuro M, Hiraoka M, Takahashi HE. Fragility Fracture Network-Japan: The challenge of establishment of a national hip fracture database and successful achievement of nationwide health system change for hip fracture care in Japan. *Injury*. 2024 Jun;55(6):111452. doi: 10.1016/j.injury.2024.111452. Epub 2024 Mar 2. PMID: 38461102.

*This document highlights the key findings for Japan, 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>*

## ACKNOWLEDGMENTS

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Japan Osteoporosis Society (JOS)  
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Japan Osteoporosis Foundation (JPOF)  
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