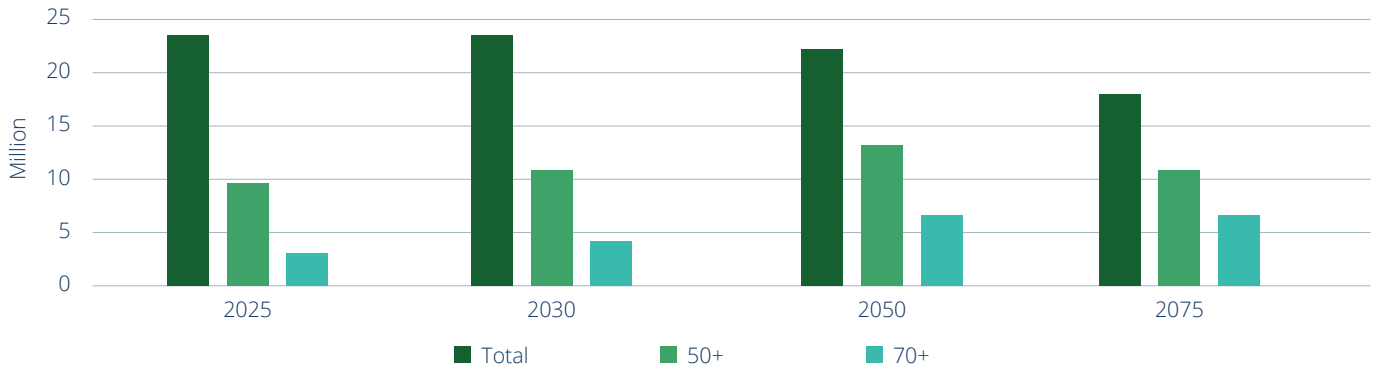
DEMOGRAPHIC TRENDS

The population of Chinese Taipei is projected to peak at more than 23.6 million in 2030, followed by a period of decline, with the population decreasing by 24% to 18.0 million by 2075 *(Figure 1)*. People in Chinese Taipei currently have an average life expectancy of 81.8 years, which is expected to rise to 89.8 years by 2075, an increase of 10%.

The proportion of people in Chinese Taipei aged 50 years or older is set to rise significantly. In 2025, this group of 9.8 million people represents 42% of the total population. By 2075, this will increase to 10.6 million people representing 59% of the total population *(Figure 1)*.

The most pronounced demographic shift will be among those aged 70 years or older, whose numbers will rise from 3.0 million in 2025 to 6.3 million in 2075. While this represents a growth of 110% in absolute numbers, a more telling statistic is their increasing share of the total population. In 2025, those aged 70+ made up almost 13% of Chinese Taipei's 23.6 million people, but by 2075, they will represent 35% of a smaller total population of 18.0 million people. This shift reflects a 175% relative increase in their share of the total population, underscoring the significant ageing of Chinese Taipei's demographic profile.

Figure 1. Population projections for Chinese Taipei from 2025 to 2075 [1]



CENTRALISED DATABASES FOR FRACTURES AND EPIDEMIOLOGY

In Chinese Taipei, the National Health Insurance Research Database provides a comprehensive resource from which fracture epidemiology data can be retrieved. However, these data are not routinely reported on an annual basis by the government, and no current summary is available for inclusion in this report.

PATIENT SUPPORT ORGANISATIONS

There are no patient support organisations focused on osteoporosis in Chinese Taipei. However, TOA has a patient education committee, patient support resource page and courses for nurse educators. Many hospitals also have patient support groups.

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
3711[2,3]	482 - 1769[3]	7[2]

CLINICAL SPECIALTY RESPONSIBLE FOR MANAGEMENT OF OSTEOPOROSIS

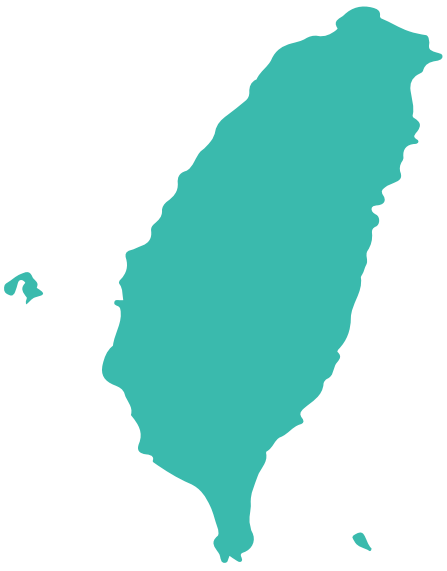
Osteoporosis is not primarily managed by primary care physicians. Instead, it is under the care mainly of orthopaedic surgeons, followed by internal medicine, geriatricians and family physicians. The *Taiwanese Osteoporosis Association (TOA)* offers courses to train osteoporosis specialists. However, it is not government accredited specialty.

OSTEOPOROSIS AS A DOCUMENTED NATIONAL HEALTH PRIORITY (NHP)

Osteoporosis is not recognised as a National Health Priority (NHP) in Chinese Taipei.

FRACTURE LIAISON SERVICES (FLS) REIMBURSEMENT AND AVAILABILITY

% of hospitals with an FLS	1 - 9%
Hip fractures identified by or referred to an FLS	17%
Vertebral fractures identified by or referred to an FLS	68%
Other fracture types identified by or referred to an FLS	15%
Reimbursement mechanism to support FLS activities	Individual hospital, research grant, private funding
% of patients recommended for treatment who actually receive treatment	70 - 89%



WAITING TIME FOR HIP SURGERY

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

AVAILABILITY AND REIMBURSEMENT OF MEDICATION

As shown in *Table 1*, a variety of osteoporosis treatments are available in Chinese Taipei. Antiresorptive medications are reimbursed as first-line therapy. Only those with very high-risk for fracture (bone mineral density T-score ≤-3.0) that have used antiresorptive medication for more than one year and sustain a new fragility fracture are reimbursed with bone formation medications. Prior to 2025, medications can only be reimbursed to those with hip fracture or vertebral compression fracture AND low BMD. Since March 2025, coverage extended to radius and humerus fractures for three specific medications. Also, for osteoporosis patients with rheumatoid arthritis, diabetes mellitus taking insulin therapy, and those that used prednisone equivalent dose of more than 5 mg/d for 3 months, two specific medications were reimbursed. When patients fit the reimbursement criteria, medications are paid 100% by the National Health Insurance system with very limited co-pay. Otherwise, patients would pay out-of-pocket if physicians feel treatments are necessary. Reimbursement policy does not interfere with what physicians would normally recommend to patients.

Table 1. Availability and reimbursement of osteoporosis treatments in Chinese Taipei

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

* Reimbursed as a hormone NOT as osteoporosis medication.
**Reimbursed for postmenopausal women with hip fracture or compression fracture, NOT combined with other osteoporosis medications.

FRACTURE RISK ASSESSMENT TOOLS

FRAX®, FRAXplus® and American Bone Health Calculator are used in Chinese Taipei, with FRAX® being the most widely used fracture risk calculator. The OSTA, OSTAi and MOSTAi are also used in a convenient way.

GUIDELINES FOR OSTEOPOROSIS MANAGEMENT

In 2023, the Taiwanese Osteoporosis Association (TOA) published updated clinical practice guidelines for the prevention and treatment of osteoporosis. The guidelines address population-based screening and provide the following indications for bone mineral density (BMD) measurement:

1. Women over 65 years of age or men over 70 years of age.
2. Menopausal women under 65 years of age with risk factors.
3. Women in the menopausal age range who have clinical fracture risk factors, such as being underweight, previous fractures, or the use of medications that increase fracture risk.
4. Men aged 50 to 70 years with fracture risk factors.
5. Individuals with fragility fractures (defined as fractures occurring from low-impact events).
6. Individuals with conditions related to low bone mass or bone mass loss.
7. Individuals taking medications that cause low bone mass or bone mass loss.
8. Anyone who requires anti-osteoporosis medications.
9. Individuals requiring monitoring to assess the effectiveness of treatment.
10. Evidence of bone loss, with consideration of treatment.
11. Individuals with moderate FRAX® risk.

The guidelines also address fracture risk assessment, considering factors such as prior fractures, age, BMD, and FRAX® scores, and are aligned with reimbursement policies.

Criteria for treatment are based on prior fractures, age, BMD, and FRAX® and are similarly compatible 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 Chinese Taipei

Systematic literature review undertaken	Yes
Recommendations	Yes
Stakeholder involvement	Yes
External review	Yes
Procedure for update defined	Yes
Economic analysis	Yes
Editorial independence	Yes

QUALITY INDICATORS

Level	Title	Topics covered	Frequency of reporting
National	Guidelines for Prevention and Treatment of Osteoporosis	Osteoporosis and secondary prevention of fragile fracture	Update every 2 years

ACCESS TO DXA AND/OR ULTRASOUND AND REIMBURSEMENT

DXA is available in Chinese Taipei

Waiting time (d)	Urban medical centre 30, rural hospitals 1-7
Cost (USD)	40 (2 sites)
Is it reimbursed?	Partially (or conditionally)*
Is reimbursement a barrier to accessing treatment?	Yes

* DXA is reimbursed mainly for patients with endocrine disorders, fragility fractures, prostate cancer and breast cancer patients before and after certain medications, and under osteoporosis treatment to monitor progress.

No specific information was provided on access to ultrasound, but it was popular in a general awareness survey and for screening in the community.

OVERVIEW OF OSTEOPOROSIS IN CHINESE TAIPEI

In Chinese Taipei, the number of prevalent osteoporosis cases increased from 2008 to 2015 and remained stable until 2019. However, age-standardised prevalence and incidence rates declined over this period, from 3.8% to 2.9% and from 2.0% to 1.0%, respectively. The overall incidence rates of hip and spine fractures decreased significantly by 34% and 27%, respectively. Among patients with hip and spine fractures, the refracture rates were 8.5% and 12.9%, respectively, while the 1-year mortality rate remained stable at approximately 15% for hip fractures and 6% for spine fractures. Multiple real-world evidence studies have demonstrated that the use of osteoporosis medications after a fracture is associated with significant reductions in both refracture risk and all-cause mortality.

REFERENCES

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. Accessed 22 May 2025.
2. Kim H, Cheng S-H, Yamana H, et al. Variations in hip fracture inpatient care in Japan, Korea, and Taiwan: an analysis of health administrative data. BMC Health Services Research. 2021; 21: 694. doi:10.1186/s12913-021-06621-y
3. Chan DC, McCloskey EV, Chang CB, et al. Establishing and evaluating FRAX® probability thresholds in Taiwan. J Formos Med Assoc 2017;116:161-8.

This document highlights the key findings for Chinese Taipei, 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

APAC Audit Contributor based in Chinese Taipei
Taiwanese Osteoporosis Association (TOA)
http://www.toa1997.org.tw/

APAC AUDIT 2025 IOF International Osteoporosis Foundation APCO ASIA PACIFIC CONSORTIUM ON OSTEOPOROSIS

www.osteoporosis.foundation