APAC AUDIT 2025

INDONESIA

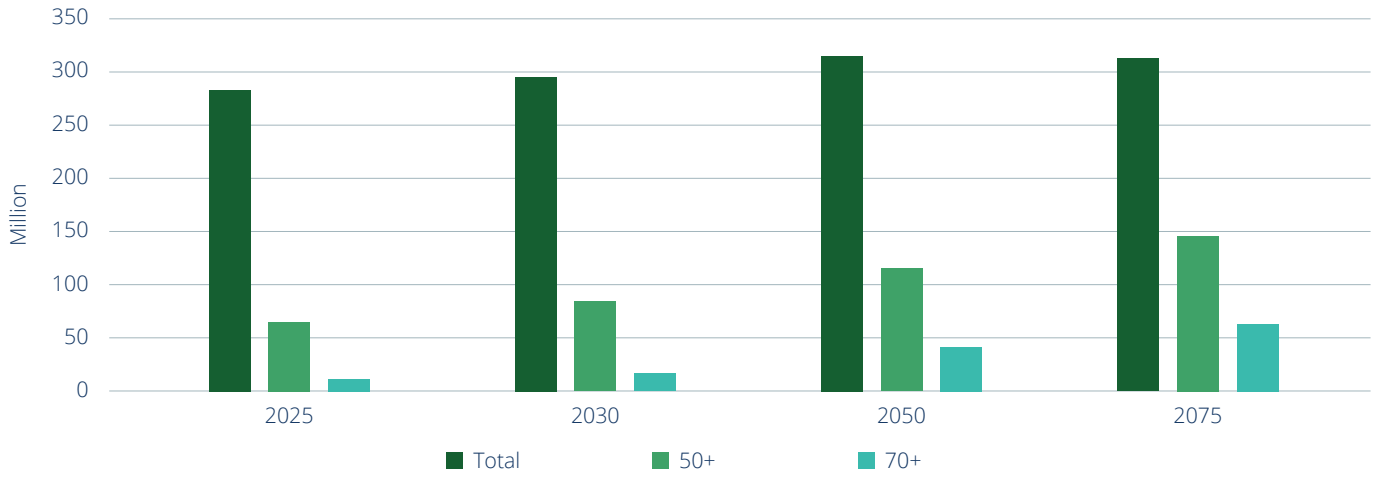
DEMOGRAPHIC TRENDS

Indonesia's population is projected to grow steadily until the mid-21st century, increasing by 12% from 283.6 million in 2025 to 318.4 million by 2050. However, this growth will be followed by a period of gradual decline, with the population decreasing by 1% to 314.7 million by 2075 *(Figure 1)*. Indonesians currently have an average life expectancy of 73.8 years, which is expected to rise to 85 years by 2075, an increase of 15%.

The proportion of Indonesians aged 50 years or older is set to rise significantly. In 2025, this group of 68.2 million people represents 24% of the total population. By 2075, this will increase to 46%, with numbers more than doubling to 145.0 million *(Figure 1)*.

The most dramatic demographic shift in Indonesia will be among those aged 70 years or older, whose numbers are projected to surge from 13.9 million in 2025 to 63.3 million in 2075, a 355% increase in absolute terms. Equally striking is their growing share of the total population. In 2025, those aged 70+ accounted for just 5% of Indonesia's 283.6 million people. By 2075, they will make up 20% of a larger 318.4 million population, reflecting a 310% relative increase in their proportion of the total population.

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



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
10,000*	**No data**	**5 - 8***

**Best available estimates as reported by country experts in the absence of published data.*

CENTRALISED DATABASES FOR FRACTURES AND EPIDEMIOLOGY

There is no centralised database for fractures in Indonesia.

CLINICAL SPECIALTY RESPONSIBLE FOR MANAGEMENT OF OSTEOPOROSIS

Osteoporosis is not primarily managed by primary care physicians. Instead, it is under the care of rheumatologists and orthopaedic surgeons. Osteoporosis is recognised as a standalone medical specialty and is currently a formal component of specialty medical training, particularly for rheumatologists.

PATIENT SUPPORT ORGANISATIONS

PERWATUSI (Perhimpunan Warga Tulang Sehat Indonesia, the Indonesian Healthy Bones Society) is a national-level patient support organisation in Indonesia dedicated exclusively to osteoporosis. The organisation plays a multifaceted role in osteoporosis prevention and management, focusing on public education, policy engagement, and community empowerment. PERWATUSI is particularly active in capacity building among women's organisations. PERWATUSI is well known for its pioneering work in developing *Senam Osteoporosis*, a tailored exercise programme aimed at maintaining bone health and preventing falls, both for older adults and as a preventive strategy for younger populations. PERWATUSI also engages in research and development to enhance these programmes and assess their impact.

In its efforts, PERWATUSI receives peer support and collaboration from *PEROSI (Perhimpunan Osteoporosis Indonesia, the Indonesian Osteoporosis Association)*, which is a professional medical society focused on clinical aspects of osteoporosis. This collaboration strengthens the link between patient-centred support and evidence-based clinical guidance, fostering a comprehensive approach to osteoporosis care in Indonesia.

OSTEOPOROSIS AS A DOCUMENTED NATIONAL HEALTH PRIORITY (NHP)

Osteoporosis is not documented as a National Health Priority (NHP) in Indonesia.

FRACTURE RISK ASSESSMENT TOOLS

FRAX® is widely used in Indonesia to assess fracture risk. The decision to initiate treatment is based on a fixed probability threshold and a combination of FRAX® scores and BMD values. This approach is applied to both men and women. Age-dependent probability thresholds are not used to determine treatment eligibility.

AVAILABILITY AND REIMBURSEMENT OF MEDICATION

As shown in ***Table 1***, several osteoporosis treatments are available in Indonesia. First-line osteoporosis treatments include bisphosphonates such as risedronate and zoledronic acid, as well as calcium and vitamin D supplements.

Treatment costs are either partially covered by the national health system or fully reimbursed through private insurance, depending on the patient's insurance status. Reimbursement is subject to specific criteria, including a history of prior fracture, bone mineral density, indication for secondary fracture prevention, use of first- or second-line therapies, and prior authorisation.

In some cases, reimbursement policies may conflict with physicians' preferred treatment plans. Prescriptions for osteoporosis medications typically need to be issued by a specialist, such as an internal medicine physician or an orthopaedic surgeon. For risedronate and zoledronic acid to be reimbursed, patients must either have a BMD-DXA T-score below –2.5 or radiographic evidence of a fracture.

Table 1. Availability and reimbursement of osteoporosis treatments in Indonesia

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

** Sometimes full coverage, sometimes no coverage.*

FRACTURE LIAISON SERVICES (FLS) REIMBURSEMENT AND AVAILABILITY

There are no FLS in Indonesia.

QUALITY INDICATORS

Level	Title	Topics covered	Frequency of reporting
National	Pedoman Nasional Praktek Kedokteran untuk Osteoporosis	Adult and childhood osteoporosis	None
National	IRA recommendation for diagnosis and treatment GIOP	GIOP	None

GUIDELINES FOR OSTEOPOROSIS MANAGEMENT

In 2023, the Indonesian osteoporosis guidelines were updated by PEROSI, the Ministry of Health, and the *Indonesian Rheumatology Association*, replacing the previous 2012 version [2]. These updated guidelines were developed to raise awareness among medical practitioners regarding the detection and management of osteoporosis. The scope of the guidelines includes postmenopausal women, glucocorticoid-induced osteoporosis, and osteoporosis in men.

The guidelines do not include recommendations for population-based screening. However, they do address fracture risk assessment, considering factors such as prior fracture, age, bone mineral density, and FRAX®. The assessment guidance is compatible with current reimbursement policies.

Treatment criteria are also clearly defined and include prior fracture, age, BMD, FRAX® scores, and glucocorticoid-induced osteoporosis. These treatment criteria are 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 Indonesia

Systematic literature review undertaken	Yes
Recommendations	Based on literature review without analysis
Stakeholder involvement	Yes
External review	Yes
Procedure for update defined	Yes
Economic analysis	No
Editorial independence	Yes

WAITING TIME FOR HIP SURGERY

Average waiting time for hip surgery after hip fracture	> 3 days
% of hip fractures surgically managed	51 - 75%

ACCESS TO DXA AND/OR ULTRASOUND AND REIMBURSEMENT

DXA is available in Indonesia.

Waiting time (d)	0 - 3
Cost (USD)	60 - 150
Is it reimbursed?	Limited to none
Is reimbursement a barrier to accessing treatment?	Yes

Quantitative ultrasound is available in Indonesia.

Waiting time (d)	1
Cost (USD)	50
Is it reimbursed?	Yes
Is reimbursement a barrier to accessing treatment?	Yes

OVERVIEW OF OSTEOPOROSIS IN INDONESIA

Osteoporosis and osteoporosis-related fractures remain significantly underdiagnosed and undertreated in Indonesia. Both the *Indonesian Osteoporosis Association (PEROSI)* and the *Indonesia Rheumatology Association (IRA)* identified key contributing factors to this challenge, including limited awareness among healthcare professionals, restricted access to diagnostic tools, and uneven distribution of treatment options across the country.

PEROSI highlighted that the burden of osteoporosis in Indonesia is expected to rise with the ageing population, increasingly sedentary lifestyles, low calcium intake, and widespread use of corticosteroids. A critical barrier to diagnosis is the limited number of bone mineral density (BMD) scanners nationwide. Awareness among general practitioners (GPs) and specialists remains low. In response, PEROSI took steps to build capacity by training around 100 GPs in 2023 to screen for osteoporosis, supported by a grant from the *International Osteoporosis Foundation (IOF)*. They have also submitted recommendations to the Indonesian Ministry of Health to prioritise osteoporosis screening within primary healthcare and to provide at least one BMD scanner in every province.

IRA echoed these concerns and further emphasised the lack of national data on osteoporosis and related fractures, noting the absence of a centralised registry. They identify several structural challenges, including the limited number of healthcare professionals with expertise in osteoporosis, inadequate diagnostic infrastructure, and the difficulty in distributing therapies across Indonesia's vast archipelago. Despite these challenges, significant steps have been taken at the policy level. IRA noted major initiatives such as the development of the National Guidance for Medical Service of Osteoporosis by the Ministry of Health and their own N*ational Guideline for Glucocorticoid-Induced Osteoporosis (GIOP)*.

Together, these insights point to a shared recognition of the urgent need for improved awareness, infrastructure, national data collection, and equitable access to osteoporosis care in Indonesia. Both organisations are actively contributing to national efforts to close these gaps and improve outcomes for those at risk of fragility fractures.

REFERENCES

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This document highlights the key findings for Indonesia, 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 Contributors based in Indonesia
Indonesian Rheumatology Association (PRI)
https://reumatologi.or.id/en/home-2/

Indonesian Osteoporosis Association (PEROSI)
https://perosi.or.id/

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www.osteoporosis.foundation