

SCORECARD FOR OSTEOPOROSIS IN EUROPE (SCOPE)

Epidemiology, Burden, and Treatment of Osteoporosis in Greece

This document highlights the key findings for Greece, published in "Osteoporosis in Europe: A Compendium of country-specific reports"¹. View the complete SCOPE 2021 report² and related 29 country profiles at: <https://www.osteoporosis.foundation/scope-2021>

BURDEN OF DISEASE

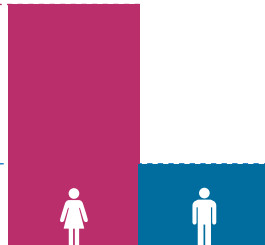
Individuals with osteoporosis in Greece

684,000

INDIVIDUALS WITH OSTEOPOROSIS IN 2019

78.9%
WOMEN

21.1%
MEN



The prevalence of osteoporosis in the total population amounted to 5.5%, on par with the EU27+2 average (5.6%). In Greece, 22.3% of women and 6.9% of men aged 50 years or more were estimated to have osteoporosis.

New fragility fractures in Greece

99,000

NEW
FRAGILITY
FRACTURES

IN 2019



272
FRACTURES
/DAY



11
FRACTURES
/HOUR

The number of new fragility fractures in Greece in 2019 was slightly increased compared to 2010, equivalent to an increment of 1.8 fractures per 1000 individuals, totalling 22.0 fractures/ 1000 individuals in 2019.

Estimated annual number of deaths associated with a fracture event

In addition to pain and disability, some fractures are associated with premature mortality. SCOPE 2021 showed that the number of fracture-related deaths varied between the EU27+2 countries, reflecting the variable incidence of fractures rather than standards of healthcare.



GREECE
130/100,000
INDIVIDUALS AGED 50+



EU 27+2
116/100,000
INDIVIDUALS AGED 50+

Remaining lifetime probability of hip fracture

WOMEN

+50
YEARS



MEN

+50
YEARS



Hip fracture is the most serious consequence of osteoporosis in terms of morbidity, mortality and health care expenditure. The remaining lifetime probability of hip fracture (%) at the ages of 50 years in men and women was 8.0% and 15.8%, respectively, placing Greece in the upper tertile of risk for men and the mid tertile of risk for women.



“
THE NUMBER OF FRAGILITY FRACTURES IN GREECE IS EXPECTED TO INCREASE BY MORE THAN 21% BETWEEN 2019 AND 2034, WITH A SUBSTANTIAL IMPACT ON THE HEALTHCARE BUDGET
 ”

Projected increase in the number of fragility fractures



Age is an important risk factor for fractures. The Greek population aged 50 years or more is projected to increase by 11.9% between 2019 and 2034, close to the EU27+2 average of 11.4%. The increases in men and women aged 75 years or more are even more marked; 23.7% for men; 21.0% for women. Accordingly, the number and burden of fragility fractures are likely to increase.

Healthcare cost of osteoporotic fractures

The cost of osteoporotic fractures in Greece accounted for approximately 6.2% of healthcare spending (i.e., €0.98 billion out of €14.60 billion in 2019), which was significantly higher than the EU27+2 average of 3.5%. These numbers indicate a substantial impact of fragility fractures on the healthcare budget.

Type of costs	
Direct cost of incident fractures	€694.7 million
Ongoing cost resulting from fractures in previous years (long-term disability costs)	€203.5 million
Cost of pharmacological intervention (assessment & treatment)	€80.5 million
Total direct cost (excluding the value of QALYs* lost)	€0.98 billion

*QALYs: Quality-Adjusted Life-Year – a multidimensional outcome measure that incorporates both the Quality (health-related) and Quantity (length) of life

In 2019, the average direct cost of osteoporotic fractures in Greece was €91.2/person, while in 2010 the average was €66.2/person (increase of 38%).

The 2019 data ranked Greece in 13th place in terms of highest cost of osteoporotic fractures per capita in the surveyed 29 countries.

POLICY FRAMEWORK

Documentation of the burden of disease is an essential prerequisite to determine if the resources are appropriately allocated in accordance with the country's policy framework for the diagnosis and treatment of the disease.

Key measures of policy framework for osteoporosis in Greece

Measure	Estimate
Established national fracture registries	No
Osteoporosis recognised as a specialty	No
Osteoporosis primarily managed in primary care	No
Other specialties involved in osteoporosis care	Orthopaedics, Endocrinology, Rheumatology
Advocacy areas covered by patient organisations	Policy, Capacity, Research & Development

No data on hip fracture rates are collected on national basis in Greece and the latest report dates from 2007³.

In Greece, osteoporosis and metabolic bone disease are not recognised specialties. Orthopaedics is the lead specialty for osteoporosis management.

However, osteoporosis is recognised as a component of specialty training.

Advocacy by patient organisations can fall into four categories: policy, capacity building and education, peer support, research and development. For Greece, three of these advocacy areas (Policy, Capacity, Research and Development) were covered by a patient organisation.

SERVICE PROVISION

The provision of medical services for osteoporosis was reviewed with certain key components, including reimbursement elements which may impair the delivery of healthcare.

Service provision for osteoporosis in Greece



Twelve out of 27 countries offered full reimbursement for osteoporosis medications. Greece offered partial reimbursement.

The number of DXA units expressed per million of the general population amounted to 51.4 which puts Greece in 1st place among the EU27+2.

In Greece, the estimated average waiting time for DXA amounted to 5 days (3rd rank). The reimbursement for DXA was conditional and varied depending on the patient's condition.

National fracture risk assessment models such as FRAX[®] were available in Greece, as well as guidance on the use of fracture risk assessment within national guidelines.

Guidelines for the management of osteoporosis were available in Greece with a focus on different specificities; postmenopausal women, osteoporosis in men.

Fracture Liaison Services (FLS), also known as post-fracture care coordination programmes and care manager programmes were reported for 1-10% of hospitals in Greece.

National quality indicators allow to measure the quality of care provided to patients with osteoporosis or associated fractures. However, no use of national quality indicators was reported for Greece.

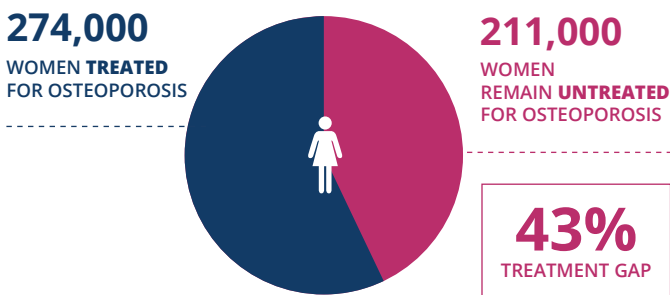
Service uptake for osteoporosis in Greece

The condition of service uptake was evaluated with metrics that reflect fracture risk assessment, treatment gap, and management of surgery for hip fractures.

Measure	Estimate	Rank among EU27+2
Number of FRAX® sessions/ million people/year	4566	4
Treatment gap for women eligible for treatment	43%	3
Proportion of surgically managed hip fractures	>90%	

There was considerable heterogeneity between the countries in web-based FRAX® usage. The average uptake for the EU27+2 was 1,555 sessions/million/year of the general population with an enormous range of 49 to 41,874 sessions/million. For Greece, the use of FRAX® amounted to 4,566 sessions/million in 2019 with an eight-fold increase since 2011.

Do women at high fracture risk receive treatment?



485,000 WOMEN ELIGIBLE FOR OSTEOPOROSIS TREATMENT

Many studies have demonstrated that a significant proportion of men and women at high fracture risk do not receive therapy for osteoporosis (the treatment gap). For Greece, the treatment gap amongst women increased to 43% in 2019, compared to 31% in 2010. In the EU27+2 the average gap was 71% but ranged from 32% to 87%.

For Greece, the average waiting time for hip fracture surgery after hospital admission was reported to be 2-3 days. The proportion of surgically managed hip fractures was over 90%.

Burden of Disease		Policy Framework	
Hip Fracture Risk	Red	Quality of Data	Red
Fracture Risk	Red	National Health Priority	Red
Lifetime Risk	Yellow	Care Pathway	Yellow
FRAX® Risk	Yellow	Specialist Training	Yellow
Fracture Projections	Green	Society Support	Yellow

Service Provision		Service Uptake	
Treatment	Red	FRAX® Uptake	Green
Availability of DXA	Green	Treatment Gap	Green
Access to DXA	Yellow	Δ Treatment Gap	Yellow
Risk Models	Green	Waiting Time for Hip Fracture Surgery	Red
Guideline Quality	Yellow		
Liaison Service	Yellow		
Quality Indicators	Red		

The elements of each domain in each country were scored and coded using a traffic light system (red, orange, green) and used to synthesise a scorecard.

Greece scores resulted in a 9th place regarding Burden of Disease. The combined Healthcare Provision (Policy Framework, Service Provision, and Service Uptake) scorecard resulted in a 18th place for Greece. Accordingly, Greece represents one of the high-burden low-provision countries among the 29 European surveyed countries.

Since the previous SCOPE study in 2010, scores for Greece were unchanged. Overall, they had improved in 15 countries, remained constant in 8 countries and worsened in 3 countries.

Acknowledgments

SCOPE Corresponding National Societies based in Greece

- Hellenic Osteoporosis Foundation www.heliost.gr
- Hellenic Society for the Study of Bone Metabolism www.eemmo.gr
- Butterfly - Bone Health Society www.osteocare.gr

References

1. Willers C, et al. Osteoporosis in Europe: A compendium of country-specific reports, Arch Osteoporos, 2022
2. Kanis JA, et al. SCOPE 2021: a new scorecard for osteoporosis in Europe, Arch Osteoporos, 2021
3. Lyritis GP, et al. Incidence of hip fractures in Greece during a 30-year period: 1977-2007, Osteoporos Int, 2013