

## SCORECARD FOR OSTEOPOROSIS IN EUROPE (SCOPE)

# Epidemiology, Burden, and Treatment of Osteoporosis in Portugal

This document highlights the key findings for Portugal, published in "Osteoporosis in Europe: A Compendium of country-specific reports"<sup>1</sup>. View the complete SCOPE 2021 report<sup>2</sup> and related 29 country profiles at: <https://www.osteoporosis.foundation/scope-2021>

### BURDEN OF DISEASE

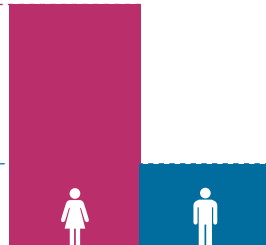
#### Individuals with osteoporosis in Portugal

**681,000**

INDIVIDUALS WITH OSTEOPOROSIS IN 2019

**80.4%**  
WOMEN

**19.6%**  
MEN



The prevalence of osteoporosis in the total population amounted to 5.6%, on par with the EU27+2 average (5.6%). In Portugal, 22.0% of women and 6.7% of men aged 50 years or more were estimated to have osteoporosis.

#### New fragility fractures in Portugal

**70,700**

NEW  
FRAGILITY  
FRACTURES

IN 2019



**194**  
FRACTURES  
/DAY



**8**  
FRACTURES  
/HOUR

The number of new fragility fractures in Portugal in 2019 was slightly increased compared to 2010, equivalent to an increment of 2.6 fractures per 1000 individuals, totalling 15.8 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.



**PORTUGAL**  
**89/100,000**  
INDIVIDUALS AGED 50+

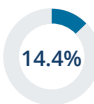


**EU 27+2**  
**116/100,000**  
INDIVIDUALS AGED 50+

#### Remaining lifetime probability of hip fracture

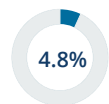
WOMEN

**+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 4.8% and 14.4%, respectively, placing Portugal in the bottom tertile of risk for men and the mid tertile of risk for women.



“  
**THE NUMBER OF FRAGILITY  
 FRACTURES IN PORTUGAL IS  
 EXPECTED TO INCREASE BY MORE  
 THAN 28% 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 Portuguese population aged 50 years or more is projected to increase by 11.3% 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; 33.9% for men; 26.1% 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 Portugal accounted for approximately 5.6% of healthcare spending (i.e., €1.0 billion out of €17.6 billion in 2019), which is 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	€523.9 million
Ongoing cost resulting from fractures in previous years (long-term disability costs)	€464.8 million
Cost of pharmacological intervention (assessment & treatment)	€14.8 million
<b>Total direct cost (excluding the value of QALYs* lost)</b>	<b>€1.0 billion</b>

\*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 Portugal was €97.6/person, while in 2010 the average was €59.6/person (increase of 64%).

The 2019 data ranked Portugal in 10<sup>th</sup> 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 Portugal

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

Despite the lack of established national fracture registries, the national data on hip fracture rates are of high quality and include more than only hip fracture data.

In Portugal, osteoporosis and metabolic bone disease are not recognised specialties. 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 Portugal, all four of the advocacy areas were covered by a patient organisation, which was the case for only 10 out of the 26 countries with at least one 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 Portugal



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

The number of DXA units expressed per million of the general population amounted to 25.4 which puts Portugal in 6<sup>th</sup> place among the EU27+2.

In Portugal, the estimated average waiting time for DXA amounted to 7 days (5<sup>th</sup> rank). The reimbursement for DXA was unconditional.

National fracture risk assessment models such as FRAX<sup>®</sup> were available in Portugal, as well as guidance on the use of fracture risk assessment within national guidelines.

Guidelines for the management of osteoporosis were available in Portugal with a focus on different specificities; postmenopausal women, osteoporosis in men, secondary osteoporosis including glucocorticoid-induced osteoporosis.

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

In some surveyed countries, national quality indicators were available that 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 Portugal.

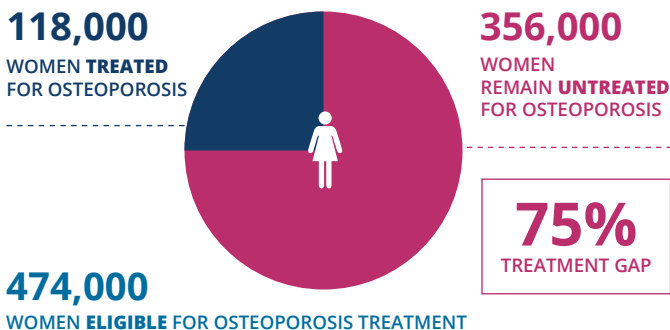
## Service uptake for osteoporosis in Portugal

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	2662	8
Treatment gap for women eligible for treatment	75%	15
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 Portugal, the use of FRAX® amounted to 2662 sessions/million in 2019 with a 156 % increase since 2011.

### Do women at high fracture risk receive 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 Portugal, the treatment gap amongst women **increased to 75%** in 2019, compared to 37% in 2010. In the EU27+2 the average gap was 71% but ranged from 32% to 87%.

For Portugal, the average waiting time for hip fracture surgery after hospital admission was reported to be more than 3 days, implying an increase in waiting time compared to 2010 (waiting time of 2-3 days). The proportion of surgically managed hip fractures was reported to be over 90%.

Burden of Disease		Policy Framework	
Hip Fracture Risk	Green	Quality of Data	Yellow
Fracture Risk	Green	National Health Priority	Red
Lifetime Risk	Yellow	Care Pathway	Green
FRAX® Risk	Green	Specialist Training	Yellow
Fracture Projections	Yellow	Society Support	Green
Service Provision		Service Uptake	
Treatment	Yellow	FRAX® Uptake	Green
Availability of DXA	Green	Treatment Gap	Yellow
Access to DXA	Green	Δ Treatment Gap	Red
Risk Models	Green	Waiting Time for Hip Fracture Surgery	Red
Guideline Quality	Green		
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.

Portugal scores resulted in a 21<sup>st</sup> place regarding Burden of Disease. The combined Healthcare Provision (Policy Framework, Service Provision, and Service Uptake) scorecard resulted in a 13<sup>th</sup> place for Portugal. Accordingly, Portugal represents one of the low-burden high-provision countries among the 29 European surveyed countries.

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

## Acknowledgments

### SCOPE Corresponding National Society based in Portugal

- Portuguese Society of Osteoporosis and Other Metabolic Bone Diseases (SPODOM)  
www.spodom.pt

### SCOPE Correspondent for Portugal

- Prof. Da Silva José António P.  
University of Coimbra

## 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