

**SCORECARD FOR OSTEOPOROSIS IN EUROPE (SCOPE)**

# Epidemiology, Burden, and Treatment of Osteoporosis in Slovenia

This document highlights the key findings for Slovenia, 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

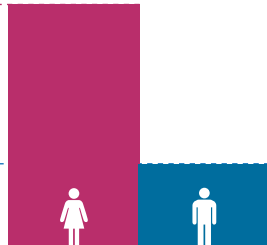
Individuals with osteoporosis in Slovenia

**125,000**

INDIVIDUALS WITH OSTEOPOROSIS IN 2019

**80.2%**

**19.8%**  
MEN



The prevalence of osteoporosis in the total population amounted to 5.4%, on par with the EU27+2 average (5.6%). In Slovenia, 21.5% of women and 6.0% of men aged 50 years or more were estimated to have osteoporosis.

New fragility fractures in Slovenia

**16,600**

**NEW FRAGILITY FRACTURES IN 2019**



**46**  
FRACTURES /DAY



**2**  
FRACTURES /HOUR

The number of new fragility fractures in Slovenia in 2019 has slightly decreased compared to 2010, equivalent to a decrement of 1.5 fractures less per 1000 individuals, totalling 18.9 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.



**SLOVENIA**  
**114/100,000**  
INDIVIDUALS AGED 50+



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

## Remaining lifetime probability of hip fracture

WOMEN  
**+50**  
YEARS



MEN  
**+50**  
YEARS



\* No data available

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 women was 11.6%. No data was provided for men in Slovenia.



“  
**THE NUMBER OF FRAGILITY FRACTURES IN SLOVENIA IS EXPECTED TO INCREASE BY ALMOST 30% 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 population aged 50 years or more is projected to increase by 13.1% 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; 64.9% for men; 33.3% 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 Slovenia accounted for approximately 2.5% of healthcare spending (i.e., €96 million out of €3.5 billion in 2019), lower than the EU27+2 average of 3.5%.

Type of costs	
Direct cost of incident fractures	€60.8 million
Ongoing cost resulting from fractures in previous years (long-term disability costs)	€26.7 million
Cost of pharmacological intervention (assessment & treatment)	€8.2 million
<b>Total direct cost (excluding the value of QALYs* lost)</b>	<b>€96 million</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 Slovenia was €46.3/person, while in 2010 the average was €30.9/person (increase of 50%).

The 2019 data ranked Slovenia in 19<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 Slovenia

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	Endocrinology, General internal medicine, Rheumatology, Gynaecology, Orthopaedics
Advocacy areas covered by patient organisations	Policy, Capacity, Peer support

Neither national fracture registries nor high quality national data on hip fracture rates were available in Slovenia.

Osteoporosis and metabolic bone disease are not recognised specialties in Slovenia. 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 Slovenia, three of these advocacy areas (Policy, Capacity, Peer support) 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 Slovenia



Slovenia is one of the 12 (out of 27) countries that offered full reimbursement for osteoporosis medications.

The number of DXA units expressed per million of the general population amounted to 18 which puts Slovenia in 13<sup>th</sup> place among the EU27+2. The estimated average waiting time for DXA amounted to 7 days (5<sup>th</sup> rank). The reimbursement for DXA was conditional and limited only for secondary osteoporosis.

National fracture risk assessment models such as FRAX® were not available in Slovenia. However, the UK surrogate FRAX® model was introduced to Slovenia in 2013 and it is now widely used.

Guidelines for the management of osteoporosis were available 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, provide a system for the routine assessment and management of patients who have sustained a low trauma fracture. However, no FLS was reported for Slovenia.

Slovenia was one of the few countries with national quality indicators available to measure the quality of care provided to patients with osteoporosis or associated fractures.

Service uptake for osteoporosis in Slovenia

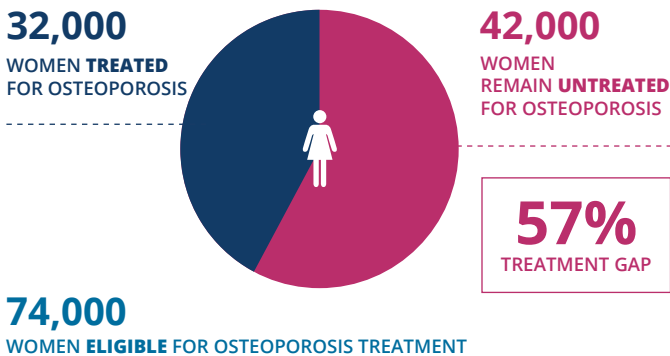
The condition of service uptake was evaluated with metrics that reflect fracture risk assessment, treatment gap, and management of surgery for hip fractures.

Measure	Estimate	Rank among EU27+2
Number of FRAX® sessions/ million people/year	41874*	1
Treatment gap for women eligible for treatment	57%	7
Proportion of surgically managed hip fractures	>90%	

\* counted with the use of a surrogate FRAX® model

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 Slovenia, the use of FRAX® amounted to 41874 sessions/million in 2019, with a 31-fold 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 Slovenia, the treatment gap amongst women **increased to 57%** in 2019, compared to 44% in 2010. In the EU27+2 the average gap was 71% but ranged from 32% to 87%.

For Slovenia, the average waiting time for hip fracture surgery after hospital admission was reported to be 1-2 days. The proportion of surgically managed hip fractures was over 90%.

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

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

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.

Slovenia scores resulted in a 16<sup>th</sup> place regarding Burden of Disease. The combined Healthcare Provision (Policy Framework, Service Provision, and Service Uptake) scorecard resulted in a 16<sup>th</sup> place for Slovenia. Accordingly, Slovenia represents one of the low-burden low-provision countries among the 29 European surveyed countries.

Overall, scores had improved in 15 countries, remained constant in 8 countries and worsened in 3 countries since the previous SCOPE study in 2010. For Slovenia, the scores were worsened.

Acknowledgments

SCOPE Corresponding National Society based in Slovenia

- Slovene Bone Society

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