

SCORECARD FOR OSTEOPOROSIS IN EUROPE (SCOPE)

Epidemiology, Burden, and Treatment of Osteoporosis in Croatia

This document highlights the key findings for Croatia, 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

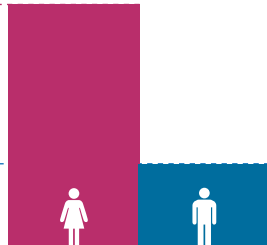
Individuals with osteoporosis in Croatia

252,000

INDIVIDUALS WITH OSTEOPOROSIS IN 2019

81.0%
WOMEN

19.0%
MEN



The prevalence of osteoporosis in the total population amounted to 5.5 %, on par with the EU27+2 average (5.6%). In Croatia, 21.1% of women and 6.2% of men aged 50 years or more were estimated to have osteoporosis.

New fragility fractures in Croatia

35,000

NEW FRAGILITY FRACTURES IN 2019



96
FRACTURES /DAY



4
FRACTURES /HOUR

There were estimated to be 35,000 new fragility fractures in Croatia in 2019, equivalent to 96 fractures/day or 4 fractures/hour.

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.



CROATIA
172/100,000
INDIVIDUALS AGED 50+



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

Remaining lifetime probability of hip fracture

WOMEN
+50
YEARS



11.4%

MEN
+50
YEARS



5.1%

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 5.1% and 11.4%, respectively, placing Croatia in the middle tertile of risk for men and the lower tertile of risk for women.



Projected increase in the number of fragility fractures



Age is an important risk factor for fractures. The Croatian population aged 50 years or more is projected to increase by 2.8% between 2019 and 2034, a significantly smaller increase compared to the EU27+2 average of 11.4%. However, the population aged 75 years or more is estimated to increase markedly; 41.0% for men; 17.3% 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 Croatia accounted for approximately 3.9% of healthcare spending (i.e., €136 million out of €3.3 billion in 2019), which is slightly higher than the EU27+2 average of 3.5%.

Type of costs	
Direct cost of incident fractures	€71.3 million
Ongoing cost resulting from fractures in previous years (long-term disability costs)	€58.6 million
Cost of pharmacological intervention (assessment & treatment)	€6.1 million
Total direct cost (excluding the value of QALYs* lost)	€136 million

*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 Croatia was €31.8/person.

The 2019 data ranked Croatia in 10th place in terms of highest cost of osteoporotic fractures per capita in the surveyed 29 countries.

“
THE NUMBER OF FRAGILITY FRACTURES IN CROATIA IS EXPECTED TO INCREASE BY MORE THAN 10% BETWEEN 2019 AND 2034, WITH A SUBSTANTIAL IMPACT ON THE HEALTHCARE BUDGET
 ”

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 Croatia

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	Endocrinology, Rehabilitation, Orthopaedics, Gynaecology
Advocacy areas covered by patient organisations	Policy, Capacity, Peer support

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 Croatia, osteoporosis and metabolic bone disease are not recognized specialties. However, osteoporosis is recognized 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 Croatia, 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 Croatia



Croatia 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 10.8 which puts Croatia in 19th place among the EU27+2. In Croatia, the estimated average waiting time for DXA amounted to 21 days (17th rank). Reimbursement of DXA was unconditional.

National fracture risk assessment models such as FRAX® were available in Croatia. However, there was no guidance available on their use within national guidelines.

Guidelines for the management of osteoporosis were available in Croatia 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 Croatia.

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 Croatia.

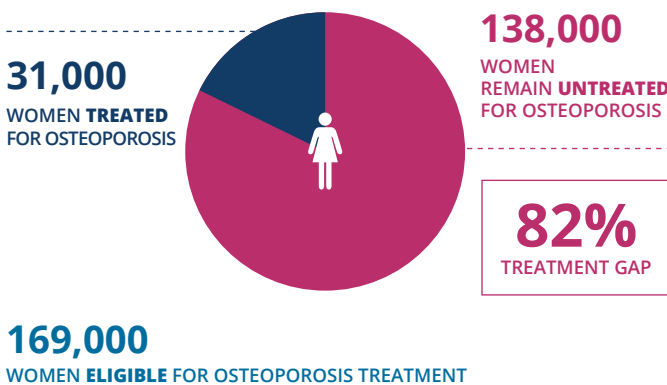
Service uptake for osteoporosis in Croatia

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	629	17
Treatment gap for women eligible for treatment	82%	22
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 Croatia, the use of FRAX® amounted to 629 sessions/million in 2019.

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 Croatia, the treatment gap amongst women increased to 82% in 2019, compared to 67% in 2010. The EU27+2 the average gap was 71% in 2019 but ranged from 32% to 87%.

For Croatia, the average waiting time for hip fracture surgery after hospital admission was reported to be less than 24 hours. The proportion of surgically managed hip fractures was reported to be 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	Yellow
FRAX® Risk	Green	Specialist Training	Yellow
Fracture Projections	Green	Society Support	Yellow

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

Croatia scores resulted in a 19th place regarding Burden of Disease. The combined Healthcare Provision (Policy Framework, Service Provision, and Service Uptake) scorecard resulted in a 24th place for Croatia. Accordingly, Croatia 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 Croatia, data for comparison to 2010 were not available.

Acknowledgments

SCOPE Corresponding National Society based in Croatia

- Croatian League Against Rheumatism

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