

SCORECARD FOR OSTEOPOROSIS IN EUROPE (SCOPE)

Epidemiology, Burden, and Treatment of Osteoporosis in Lithuania

This document highlights the key findings for Lithuania 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

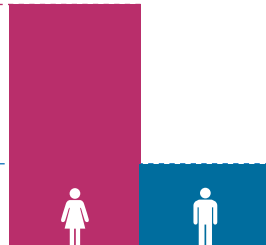
Individuals with osteoporosis in Lithuania

181,000

INDIVIDUALS WITH OSTEOPOROSIS IN 2019

84.0%
WOMEN

16.0%
MEN



The prevalence of osteoporosis in the total population amounted to 5.3%, on par with the EU27+2 average (5.6%). In Lithuania, 21.7% of women and 6.1% of men aged 50 years or more were estimated to have osteoporosis.

New fragility fractures in Lithuania

23,000

NEW
FRAGILITY
FRACTURES

IN 2019



63
FRACTURES
/DAY



2.6
FRACTURES
/HOUR

The number of new fragility fractures in Lithuania in 2019 was significantly increased compared to 2010, equivalent to an increment of 6.4 fractures per 1000 individuals, totalling 19.8 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.



LITHUANIA
172/100,000
INDIVIDUALS AGED 50+



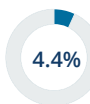
EU 27+2
116/100,000
INDIVIDUALS AGED 50+

Remaining lifetime probability of hip fracture

WOMEN
+50
YEARS



MEN
+50
YEARS

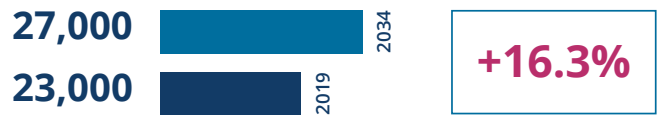


Hip fracture is the most serious consequence of osteoporosis in terms of morbidity, mortality and health care expenditure. The remaining lifetime probability of hip fracture (%) at the ages of 50 years in men and women was 4.4% and 11.3%, respectively, placing Lithuania in the bottom tertile of risk for both men and women.



“
THE NUMBER OF FRAGILITY FRACTURES IN LITHUANIA IS EXPECTED TO INCREASE BY MORE THAN 16% 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 Lithuanian population aged 50 years or more is projected to **decrease by 4.2%** between 2019 and 2034, contrary to the EU27+2 average which will increase by 11.4%. However, the numbers of men and women aged 75 years or more are expected to increase significantly; 17.2% for men; 11.9% 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 Lithuania accounted for approximately 3.2% of healthcare spending (i.e., €91 million out of €2.75 billion in 2019), close to 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	€53.1 million
Ongoing cost resulting from fractures in previous years (long-term disability costs)	€35.1 million
Cost of pharmacological intervention (assessment & treatment)	€2.8 million
Total direct cost (excluding the value of QALYs* lost)	€91 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 Lithuania was €32.6/person, while in 2010 the average was €15.5/person (increase of 110.3%).

The 2019 data ranked Lithuania in 23rd 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 Lithuania

Measure	Estimate
Established national fracture registries	Yes
Osteoporosis recognised as a specialty	Yes
Osteoporosis primarily managed in primary care	Yes
Other specialties involved in osteoporosis care	Internal medicine, Geriatrics, Endocrinology, Rheumatology, Orthopaedics
Advocacy areas covered by patient organisations	Policy, Capacity, Peer support, Research & Development

National fracture registries were established in Lithuania which collect information on several fracture outcomes. However, high quality data on hip fracture rates were not available, even though the data were collected on a national basis and include more than only hip fracture data.

In Lithuania, osteoporosis and metabolic bone disease are recognised specialties. Furthermore, 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 Lithuania, all of these areas 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 Lithuania



Lithuania 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 8.0 which puts Lithuania in 22nd place among the EU27+2.

In Lithuania, the estimated average waiting time for DXA amounted to 7 days (5th 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 Lithuania, as well as guidance on the use of fracture risk assessment within national guidelines.

Guidelines for the management of osteoporosis were available in Lithuania, including postmenopausal women specifically.

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 Lithuania.

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 Lithuania.

SERVICE UPTAKE

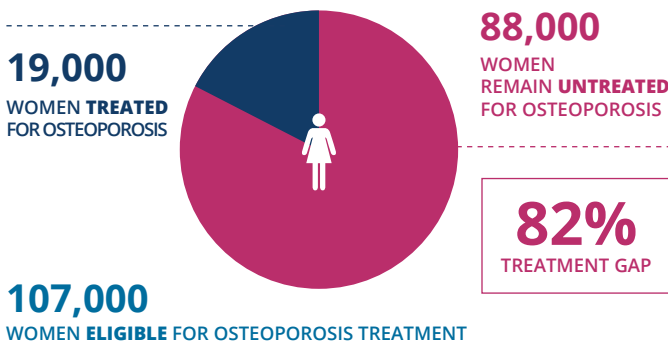
Service uptake for osteoporosis in Lithuania

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	131	27
Treatment gap for women eligible for treatment	82%	23
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 Lithuania, the use of FRAX® amounted to 131 sessions/million in 2019 with a 360% 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 Lithuania, the treatment gap amongst women **decreased to 82%** in 2019, compared to 90% in 2010. In the EU27+2 the average gap was 71% but ranged from 32% to 87%.

For Lithuania, 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%.

SCORECARD

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

Lithuania scores resulted in a 24th place regarding Burden of Disease. The combined Healthcare Provision (Policy Framework, Service Provision, and Service Uptake) scorecard resulted in a 12th place for Lithuania. Accordingly, Lithuania represents one of the low-burden high-provision countries among the 29 European surveyed countries.

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

Acknowledgments

SCOPE Corresponding National Society based in Lithuania

- Lithuanian Osteoporosis Foundation

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