

## SCORECARD FOR OSTEOPOROSIS IN EUROPE (SCOPE)

# Epidemiology, Burden, and Treatment of Osteoporosis in Cyprus

This document highlights the key findings for Cyprus, 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 Cyprus

50,000

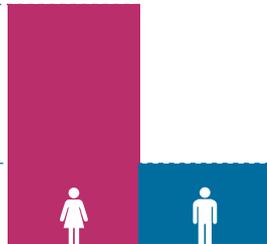
INDIVIDUALS WITH OSTEOPOROSIS IN 2019

77.8%

WOMEN

22.2%

MEN



The prevalence of osteoporosis in the total population amounted to 3.7 %, lower than the EU27+2 average (5.6%). In Cyprus, 19.3% of women and 6.2% of men aged 50 years or more were estimated to have osteoporosis.

#### New fragility fractures in Cyprus

6,600

NEW FRAGILITY FRACTURES IN 2019



18

FRACTURES /DAY



0.8

FRACTURES /HOUR

The number of new fragility fractures in Cyprus in 2019 has slightly increased compared to 2010, equivalent to an increment of 0.6 fractures per 1000 individuals, totalling 17.1 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.



CYPRUS

84/100,000

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. However, no data regarding the remaining lifetime probability of hip fracture were available for Cyprus.



“  
**THE NUMBER OF FRAGILITY  
 FRACTURES IN CYPRUS IS EXPECTED  
 TO INCREASE BY MORE THAN 48%  
 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 national population aged 50 years or more is projected to increase by 33.8% between 2019 and 2034, significantly above the EU27+2 average of 11.4%. The increases in men and women aged 75 years or more are even more marked; 71.0% for men; 59.4% 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 Cyprus accounted for approximately 5.8% of healthcare spending (i.e., €86 million out of €1.3 billion in 2019), which is higher than the EU27+2 average of 3.5%.

Type of costs	
Direct cost of incident fractures	€64.1 million
Ongoing cost resulting from fractures in previous years (long-term disability costs)	€12.7 million
Cost of pharmacological intervention (assessment & treatment)	€8.9 million
<b>Total direct cost (excluding the value of QALYs* lost)</b>	<b>€86 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 Cyprus was €72.1/person, while in 2010 the average was €51.9/person (increase of 39%).

The 2019 data ranked Cyprus in 16<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 Cyprus

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
Advocacy areas covered by patient organisations	Policy, Capacity

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

In Cyprus, osteoporosis and metabolic bone disease are not recognised specialties. Furthermore, osteoporosis is not 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 Cyprus, two of these advocacy areas (policy, capacity) 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 Cyprus



Cyprus 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 19.7 which puts Cyprus in 12<sup>th</sup> place among the EU27+2.

In Cyprus, the estimated average waiting time for DXA amounted to 120 days (28<sup>th</sup> rank). Reimbursement of DXA was conditional and dependent on patient's income.

National fracture risk assessment models such as FRAX® were not available in Cyprus. Guidelines for the management of osteoporosis were also not available.

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 Cyprus.

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 Cyprus.

Service uptake for osteoporosis in Cyprus

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	1058*	14
Treatment gap for women eligible for treatment	No data	
Proportion of surgically managed hip fractures	75-90%	

\*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 Cyprus, the use of FRAX® amounted to 1058 sessions/million in 2019, with an increase of 300% 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 Cyprus, there was **no information available regarding the treatment gap in 2019**. In the EU27+2 the average gap was 71% in 2019 but ranged from 32% to 87%.

For Cyprus, 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 reported to be 75-90%.

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

\*no data available

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.

Cyprus scores resulted in a 23<sup>rd</sup> place regarding Burden of Disease. The combined Healthcare Provision (Policy Framework, Service Provision, and Service Uptake) scorecard resulted in a 28<sup>th</sup> place for Cyprus. Accordingly, Cyprus 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 Cyprus, the scores were somewhat improved.

Acknowledgments

SCOPE Corresponding National Society based in Cyprus

- Cyprus Society Against Osteoporosis and Musculoskeletal Diseases

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