

SCORECARD FOR OSTEOPOROSIS IN EUROPE (SCOPE)

Epidemiology, Burden, and Treatment of Osteoporosis in Italy

This document highlights the key findings for Italy, 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

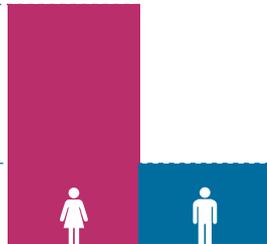
Individuals with osteoporosis in Italy

4,359,000

INDIVIDUALS WITH OSTEOPOROSIS IN 2019

79.8%
WOMEN

20.2%
MEN



The prevalence of osteoporosis in the total population amounted to 6.3%, somewhat higher than the EU27+2 average (5.6%). In Italy, 23.4% of women and 6.9% of men aged 50 years or more were estimated to have osteoporosis.

New fragility fractures in Italy

568,000

NEW FRAGILITY FRACTURES IN 2019



1,560
FRACTURES /DAY



65
FRACTURES /HOUR

The number of new fragility fractures in Italy in 2019 was slightly increased compared to 2010, equivalent to an increment of 1.0 fractures per 1000 individuals, totalling 20.6 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.



ITALY
105/100,000
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 7.7% and 19.2%, respectively, placing Italy in the upper tertile of risk for both men and women.



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**THE NUMBER OF FRAGILITY
 FRACTURES IN ITALY IS EXPECTED
 TO INCREASE BY MORE THAN 23%
 BETWEEN 2019 AND 2034, WITH
 A SUBSTANTIAL IMPACT ON THE
 HEALTHCARE BUDGET**
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Projected increase in the number of fragility fractures



Age is an important risk factor for fractures. The Italian population aged 50 years or more is projected to increase by 10.1% 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; 31.8% for men; 20.3% 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 Italy accounted for approximately 6.0% of healthcare spending (i.e., €9.45 billion out of €153.85 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	€5.44 billion
Ongoing cost resulting from fractures in previous years (long-term disability costs)	€3.75 billion
Cost of pharmacological intervention (assessment & treatment)	€259 million
Total direct cost (excluding the value of QALYs* lost)	€9.45 billion

*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 Italy was €156.3/person, while in 2010 the average was €129.1/person (increase of 21%).

The 2019 data ranked Italy in 5th 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 Italy

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

High quality of national data on hip fracture rates have been identified in Italy. Data are collected on a national basis and include more than only hip fracture data.

In Italy, 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 Italy, 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 Italy



Italy 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 23.5 which puts Italy in 9th place among the EU27+2.

In Italy, the estimated average waiting time for DXA amounted to 90 days (24th rank). The reimbursement for DXA was conditional and varied depending on the patient's condition.

National fracture risk assessment models such as FRAX® and DeFRA were available in Italy, as well as guidance on the use of fracture risk assessment within national guidelines.

Guidelines for the management of osteoporosis were available in Italy 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 1-10% of hospitals in Italy.

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

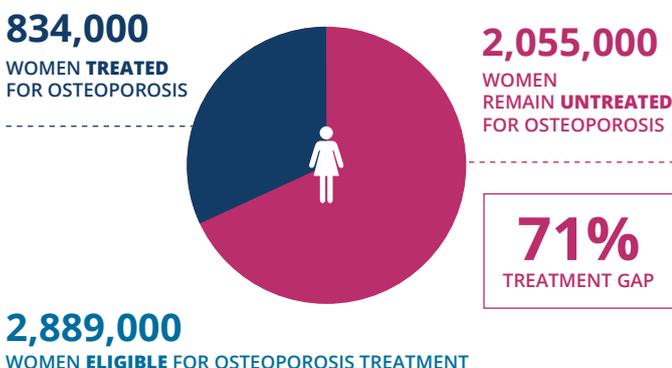
Service uptake for osteoporosis in Italy

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	414	23
Treatment gap for women eligible for treatment	71%	13
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 Italy, the use of FRAX® amounted to 414 sessions/million in 2019 with a 20 % decrease since 2011. However, Italy has its own risk assessment tools that are widely used (e.g., DeFRA).

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 Italy, the treatment gap amongst women increased to 71% in 2019, compared to 59% in 2010. In the EU27+2 the average gap was 71% but ranged from 32% to 87%.

For Italy, 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 over 90%.

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

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

Italy scores resulted in a 14th place regarding Burden of Disease. The combined Healthcare Provision (Policy Framework, Service Provision, and Service Uptake) scorecard resulted in an 8th place for Italy. Accordingly, Italy represents one of the high-burden high-provision countries among the 29 European surveyed countries.

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

Acknowledgments

SCOPE Corresponding National Societies based in Italy

- **Societa Italiana dell'Osteoporosi del Metabolismo Minerale e delle Malattie dello Scheletro (SIOMMMS)**
www.siommmms.it
- **Italian Federation of Osteoporosis and Diseases of the Skeleton (FEDIO)**
www.fedios.org
- **Fondazione Italiana Ricerca Malattie Dell' Osso (FIRMO)**
www.fondazionefirmo.com

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