

## SCORECARD FOR OSTEOPOROSIS IN EUROPE (SCOPE)

# Epidemiology, Burden, and Treatment of Osteoporosis in Ireland

This document highlights the key findings for Ireland, 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 Ireland

209,000

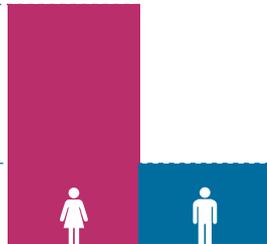
INDIVIDUALS WITH OSTEOPOROSIS IN 2019

77.5%

WOMEN

22.5%

MEN



The prevalence of osteoporosis in the total population amounted to 3.7%, somewhat lower than the EU27+2 average (5.6%). In Ireland, 20.0% of women and 6.2% of men aged 50 years or more were estimated to have osteoporosis.

New fragility fractures in Ireland

32,000

NEW FRAGILITY FRACTURES

IN 2019



89

FRACTURES /DAY



3.7

FRACTURES /HOUR

The number of new fragility fractures in Ireland in 2019 has increased compared to 2010, equivalent to an increment of 6.1 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.



115/100,000

INDIVIDUALS AGED 50+



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 7.8% and 18.2%, respectively, placing Ireland in the upper tertile of risk for both men and women.



“  
**THE NUMBER OF FRAGILITY FRACTURES IN IRELAND IS EXPECTED TO INCREASE BY MORE THAN 58% 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 Irish population aged 50 years or more is projected to increase by 38.0% between 2019 and 2034, significantly higher than the EU27+2 average of 11.4%. The increases in men and women aged 75 years or more are even more marked; 78.9% for men; 69.0% 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 Ireland accounted for approximately 2.0% of healthcare spending (i.e., €464.3 million out of €21.3 billion in 2019), which is much lower than the EU27+2 average of 3.5%.

Type of costs	
Direct cost of incident fractures	€290.8 million
Ongoing cost resulting from fractures in previous years (long-term disability costs)	€135.7 million
Cost of pharmacological intervention (assessment & treatment)	€37.7 million
<b>Total direct cost (excluding the value of QALYs* lost)</b>	<b>€464.3 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 Ireland was €95.7/person, while in 2010 the average was €55.2/person (increase of 73%).

The 2019 data ranked Ireland in 11<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 Ireland

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	Geriatrics, Rheumatology, 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 Ireland. Data are collected on a national basis and include only for hip fracture.

In Ireland, osteoporosis and metabolic bone disease are recognised specialties while this is not the case in most countries. 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 Ireland, all four of the advocacy areas were covered by a patient organisation, which was the case for only 10 out of 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 Ireland



\*Level of reimbursement is means tested.

In Ireland, reimbursement for osteoporosis medications was conditional and age-dependent.

The number of DXA units expressed per million of the general population amounted to 20.5 which puts Ireland in 11<sup>th</sup> place among the EU27+2.

In Ireland, the estimated average waiting time for DXA amounted to 7 days (5<sup>th</sup> rank). The reimbursement for DXA was conditional and varied depending on listing with caregiver.

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

Guidelines for the management of osteoporosis were available in Ireland 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 25-50% of hospitals in Ireland.

National quality indicators allow to measure the quality of care provided to patients with osteoporosis or associated fractures. Ireland was one of the few countries with national quality indicators in place.

## SERVICE UPTAKE

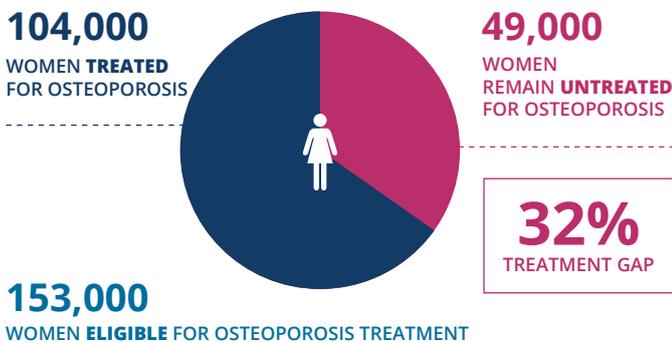
### Service uptake for osteoporosis in Ireland

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	2623	9
Treatment gap for women eligible for treatment	32%	1
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 Ireland, the use of FRAX® amounted to 2623 sessions/million in 2019, with a 60% 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 Ireland, the treatment gap amongst women **amounted to 32%** in 2019, which did not change significantly compared to 2010 (26% in 2010). In the EU27+2 the average gap was 71% but ranged from 32% to 87%.

For Ireland, the average waiting time for hip fracture surgery after hospital admission was reported to be 1-2 days, which had decreased since 2010 (waiting time of 2-3 days in 2010). The proportion of surgically managed hip fractures was reported to be over 90%.

## SCORECARD

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

Ireland scores resulted in a 7<sup>th</sup> place regarding Burden of Disease. The combined Healthcare Provision (Policy Framework, Service Provision, and Service Uptake) scorecard resulted in a 5<sup>th</sup> place for Ireland. Accordingly, Ireland represents one of the high-burden high-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 Ireland, the scores were markedly improved.

## Acknowledgments

### SCOPE Corresponding National Society based in Ireland

- **Irish Osteoporosis Society (IOS)**

[www.irishosteoporosis.ie](http://www.irishosteoporosis.ie)

## 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