



## SCORECARD FOR OSTEOPOROSIS IN EUROPE (SCOPE)

# Epidemiology, Burden, and Treatment of Osteoporosis in Belgium

This document highlights the key findings for Belgium, 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

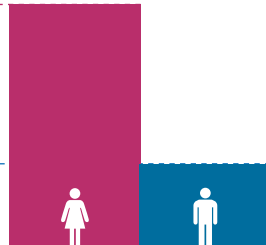
#### Individuals with osteoporosis in Belgium

**681,000**

INDIVIDUALS WITH OSTEOPOROSIS IN 2019

**79.1%**  
WOMEN

**20.9%**  
MEN



The prevalence of osteoporosis in the total population amounted to 5.6%, on par with the EU27+2 average (5.6%). In Belgium, 22.4% of women and 6.6% of men aged 50 years or more were estimated to have osteoporosis.

#### New fragility fractures in Belgium

**100,000**

NEW  
FRAGILITY  
FRACTURES

IN 2019



**274**  
FRACTURES  
/DAY



**11**  
FRACTURES  
/HOUR

The number of new fragility fractures in Belgium in 2019 has slightly increased compared to 2010, equivalent to an increment of 1.8 fractures per 1000 individuals, totalling 22 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.



**BELGIUM**  
**119/100,000**  
INDIVIDUALS AGED 50+



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

#### Remaining lifetime probability of hip fracture

WOMEN

**+50**  
YEARS



MEN

**+50**  
YEARS

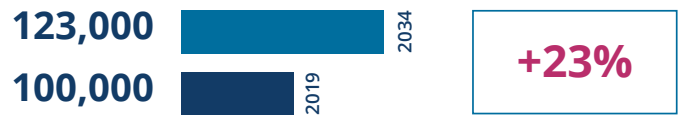


Hip fracture is the most serious consequence of osteoporosis in terms of morbidity, mortality and health care expenditure. The remaining lifetime probability of hip fracture (%) at the ages of 50 years in men and women was 7.8% and 18.2%, respectively, placing Belgium in the upper tertile of risk for both men and women.



“  
**THE NUMBER OF FRAGILITY FRACTURES IN BELGIUM IS EXPECTED TO INCREASE BY MORE THAN 23% 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 Belgian population aged 50 years or more is projected to increase by 12.6% 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; 55.5% for men; 32.8% 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 Belgium accounted for approximately 2.4% of healthcare spending (i.e., €1.1 billion out of €45.7 billion in 2019), which is lower 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  | €766.4 million      |
| Ongoing cost resulting from fractures in previous years (long-term disability costs) | €321.9 million      |
| Cost of pharmacological intervention (assessment & treatment)                        | €34.0 million       |
| <b>Total direct cost (excluding the value of QALYs* lost)</b>                        | <b>€1.1 billion</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 Belgium was €98.3/person, while in 2010 the average was €62.9/person (increase of 56%).

The 2019 data ranked Belgium in 9<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 Belgium

| Measure   | Estimate       |
|---|----------------|
| Established national fracture registries        | No             |
| Osteoporosis recognised as a specialty          | No             |
| Osteoporosis primarily managed in primary care  | Yes            |
| Other specialties involved in osteoporosis care | Rehabilitation |
| Advocacy areas covered by patient organisations | None           |

Despite the lack of established national fracture registries, the national data on hip fracture rates for Belgium are of high quality and include more than only hip fracture data.

In Belgium, osteoporosis and metabolic bone disease is not recognised as a specialty. 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 Belgium, none of the advocacy 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 Belgium



\*no data available

Twelve out of 27 countries offered full reimbursement for osteoporosis medications. Belgium offered partial reimbursement.

The number of DXA units expressed per million of the general population amounted to 28.9 which puts Belgium in 4<sup>th</sup> place among the EU27+2. In Belgium, the estimated average waiting time for DXA amounted to 7 days (5<sup>th</sup> rank). The reimbursement for DXA was conditional.

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

Guidelines for the management of osteoporosis were available in Belgium 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. No information on FLS was reported for Belgium.

National quality indicators allow to measure the quality of care provided to patients with osteoporosis or associated fractures. However, no use of quality indicators was reported for Belgium.

## SERVICE UPTAKE

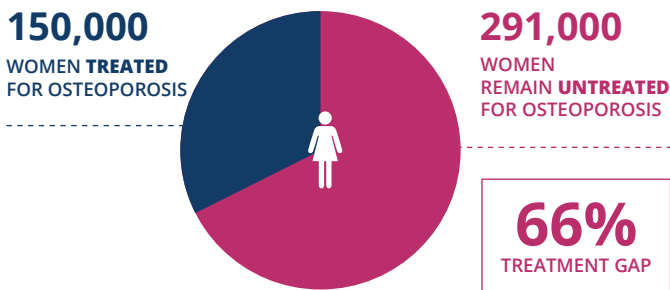
### Service uptake for osteoporosis in Belgium

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  | 2144     | 11                |
| Treatment gap for women eligible for treatment | 66%      | 10                |
| 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 Belgium, the use of FRAX® amounted to 2144 sessions/million in 2019, with a 57% decrease since 2011.

### Do women at high fracture risk receive treatment?



**441,000**  
WOMEN ELIGIBLE FOR OSTEOPOROSIS 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 Belgium, the treatment gap amongst women **increased to 66%** in 2019, compared to 47% in 2010. In the EU27+2 the average gap was 71% but ranged from 32% to 87%.

For Belgium, the average waiting time for hip fracture surgery after hospital admission was reported to be 1-2 days, which had increased since 2010 (<24 hours 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                       | Yellow |
| Fracture Risk        | Red     | National Health Priority              | Red    |
| Lifetime Risk        | Red     | Care Pathway                          | Green  |
| FRAX® Risk           | Yellow  | Specialist Training                   | Yellow |
| Fracture Projections | Green   | Society Support                       | Yellow |
| Service Provision    |         | Service Uptake                        |        |
| Treatment            | Red     | FRAX® Uptake                          | Yellow |
| Availability of DXA  | Green   | Treatment Gap                         | Yellow |
| Access to DXA        | Yellow  | Δ Treatment Gap                       | Red    |
| Risk Models          | Green   | Waiting Time for Hip Fracture Surgery | Yellow |
| Guideline Quality    | Yellow  |                                       |        |
| Liaison Service      | Black * |                                       |        |
| Quality Indicators   | Red     |                                       |        |

\*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.

Belgium scores resulted in an 8<sup>th</sup> place regarding Burden of Disease. The combined Healthcare Provision (Policy Framework, Service Provision, and Service Uptake) scorecard resulted in a 21<sup>st</sup> place for Belgium. Accordingly, Belgium represents one of the high-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 Belgium, the scores were worse in 2019 compared to 2010.

## Acknowledgments

### SCOPE Corresponding National Societies based in Belgium

- **Royal Belgian Society of Physical Medicine and Rehabilitation (RBSPMR)**  
www.prmbelgium.org
- **Belgian Bone Club (BBC)**  
www.bbcbonehealth.org

## 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