

SCORECARD FOR OSTEOPOROSIS IN EUROPE (SCOPE)

Epidemiology, Burden, and Treatment of Osteoporosis in the Netherlands

This document highlights the key findings for the Netherlands, 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

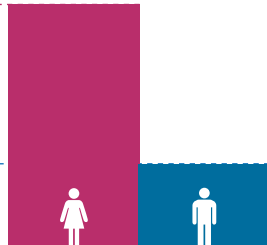
Individuals with osteoporosis in the Netherlands

976,000

INDIVIDUALS WITH OSTEOPOROSIS IN 2019

77.9%
WOMEN

22.1%
MEN



The prevalence of osteoporosis in the total population was estimated at 4.9%, slightly lower than the EU27+2 average of 5.6%. In the Netherlands, 20.8% of women and 6.3% of men aged 50 years or more were estimated to have osteoporosis.

New fragility fractures in the Netherlands

99,600

NEW FRAGILITY FRACTURES IN 2019



273 FRACTURES /DAY

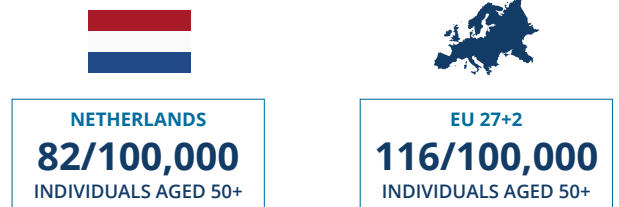


11 FRACTURES /HOUR

The number of new fragility fractures in the Netherlands in 2019 has slightly increased compared to 2010, equivalent to an increment of 1.2 fractures per 1000 individuals, totalling 14.1 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.



Remaining lifetime probability of hip fracture



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 5.4% and 12.5%, respectively, placing the Netherlands in the middle tertile of risk for both men and women.



THE NUMBER OF FRAGILITY FRACTURES IN THE NETHERLANDS IS EXPECTED TO INCREASE BY MORE THAN 37% 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 9.5% 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; 67.0% for men; 49.1% 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 the Netherlands accounted for approximately 1.8% of healthcare spending (i.e., €1.4 billion out of €75.0 billion in 2019), which is significantly lower than the EU27+2 average of 3.5%.

Type of costs	
Direct cost of incident fractures	€652.7 million
Ongoing cost resulting from fractures in previous years (long-term disability costs)	€708.4 million
Cost of pharmacological intervention (assessment & treatment)	€42.8 million
Total direct cost (excluding the value of QALYs* lost)	€1.4 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 the Netherlands was €81.5/person, while in 2010 the average was €55.2/person (increase of 48%).

The 2019 data ranked the Netherlands in 15th 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 the Netherlands

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

High quality of national data on hip fracture rates have been identified in the Netherlands. Data are collected on a national basis and include hip fracture data.

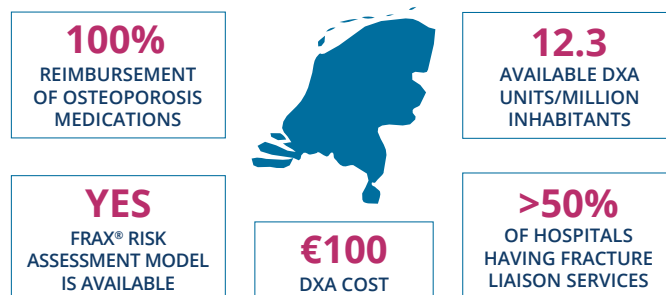
In the Netherlands, osteoporosis and metabolic bone disease are not recognised specialties. However, osteoporosis is recognised as a component of specialty training.

Advocacy by patient organisations can fall into four categories: policy, capacity building and education, peer support, research and development. For the Netherlands, three of these (policy, capacity, peer support) 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 the Netherlands



The Netherlands is one of the 12 (out of 27) countries which offered full reimbursement for osteoporosis medications.

The number of DXA units expressed per million of the general population amounted to 12.3 which puts the Netherlands in 17th place among the EU27+2. In the Netherlands, the estimated average waiting time for DXA amounted to 14 days (10th rank). The reimbursement for DXA was unconditional.

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

Guidelines for the management of osteoporosis were available 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 more than 50% of hospitals for the Netherlands.

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

SERVICE UPTAKE

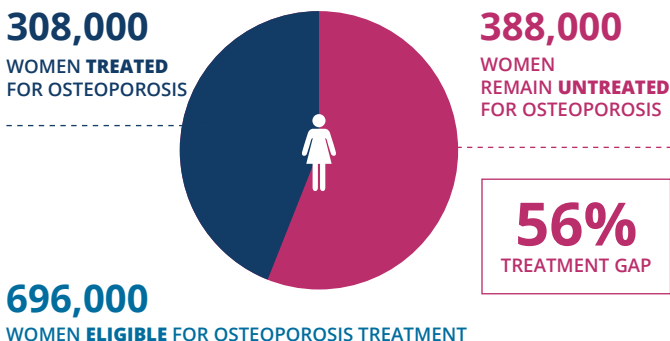
Service uptake for osteoporosis in the Netherlands

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	609	18
Treatment gap for women eligible for treatment	56%	6
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 the Netherlands, the use of FRAX® amounted to 609 sessions/million in 2019, with a 16% 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 the Netherlands, the treatment gap amongst women **amounted to 56%** in 2019, which did not change significantly compared to 2010 (60% in 2010). In the EU27+2 the average gap was 71% but ranged from 32% to 87%.

For the Netherlands, the average waiting time for hip fracture surgery after hospital admission was reported to be less than 24 hours, which had decreased since 2010 (1-2 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	Green	Quality of Data	Green
Fracture Risk	Green	National Health Priority	Red
Lifetime Risk	Green	Care Pathway	Yellow
FRAX® Risk	Green	Specialist Training	Yellow
Fracture Projections	Red	Society Support	Yellow

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

The Netherlands scores resulted in a 20th place regarding Burden of Disease. The combined Healthcare Provision (Policy Framework, Service Provision, and Service Uptake) scorecard resulted in a 2nd place for the Netherlands. Accordingly, the Netherlands represents one of the low-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 the Netherlands, the scores were almost unchanged.

Acknowledgments

SCOPE Corresponding National Societies based in the Netherlands

- **Osteoporosis Vereniging**
www.osteoporosevereniging.nl
- **National Association ReumaZorg Nederland**
www.reumazorgnederland.nl

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