SCORECARD FOR OSTEOPOROSIS IN EUROPE (SCOPE)

Epidemiology, Burden, and Treatment of Osteoporosis in Finland

This document highlights the key findings for Finland, published in "Osteoporosis in Europe: A Compendium of country-specific reports". View the complete SCOPE 2021 report and related 29 country profiles at: https://www.osteoporosis.foundation/scope-2021

BURDEN OF DISEASE

Individuals with osteoporosis in Finland

336,000
INDIVIDUALS WITH OSTEOPOROSIS IN 2019

79.4% WOMEN

20.6% MEN

The prevalence of osteoporosis in the total population amounted to 5.7%, on par with the EU27+2 average (5.6%). In Finland, 21.5% of women and 6.4% of men aged 50 years or more were estimated to have osteoporosis.

New fragility fractures in Finland

45,000
NEW FRAGILITY FRACTURES IN 2019

124 FRACTURES /DAY

5.2 FRACTURES /HOUR

The number of new fragility fractures in Finland in 2019 was slightly increased compared to 2010, equivalent to an increment of 2.1 fractures per 1000 individuals, totalling 19.5 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

WOMEN
+50 YEARS
12.4%

MEN
+50 YEARS
5.8%

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 5.8% and 12.4%, respectively, placing Finland in the mid tertile of risk for both men and women.
The cost of osteoporotic fractures in Finland accounted for approximately 2.9% of healthcare spending (i.e., €611 million out of €20.8 billion in 2019), lower than the EU27+2 average of 3.5%. Nonetheless, these numbers indicate a substantial impact of fragility fractures on the healthcare budget.

**Healthcare cost of osteoporotic fractures**

In 2019, the average direct cost of osteoporotic fractures in Finland was €110.8/person, while in 2010 the average was €78.4/person (increase of 41%).

<table>
<thead>
<tr>
<th>Type of costs</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct cost of incident fractures</td>
<td>€406.6 million</td>
</tr>
<tr>
<td>Ongoing cost resulting from fractures in previous years</td>
<td>€190.9 million</td>
</tr>
<tr>
<td>Cost of pharmacological intervention (assessment &amp; treatment)</td>
<td>€13.6 million</td>
</tr>
<tr>
<td><em><em>Total direct cost (excluding the value of QALYs</em> lost)</em>*</td>
<td><strong>€611 million</strong></td>
</tr>
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</table>

*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 Finland was €110.8/person, while in 2010 the average was €78.4/person (increase of 41%).

The 2019 data ranked Finland in 7th place in terms of highest cost of osteoporotic fractures per capita in the surveyed 29 countries.
High quality national data on hip fracture rates were available in Finland. Data are collected on a national basis and include more than only hip fractures.

In Finland, 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 Finland, all these advocacy areas were covered by a patient organisation.

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 Finland

<table>
<thead>
<tr>
<th>Measure</th>
<th>Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Established national fracture registries</td>
<td>Yes</td>
</tr>
<tr>
<td>Osteoporosis recognised as a specialty</td>
<td>No</td>
</tr>
<tr>
<td>Osteoporosis primarily managed in primary care</td>
<td>Yes</td>
</tr>
<tr>
<td>Other specialties involved in osteoporosis care</td>
<td>Endocrinology, Internal medicine, Geriatrics, Orthopaedics, Gynaecology</td>
</tr>
<tr>
<td>Advocacy areas covered by patient organisations</td>
<td>Policy, Capacity, Peer support, Research &amp; Development</td>
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</table>

Twelve out of 27 countries offered full reimbursement for osteoporosis medications. Finland offered 40% reimbursement.

The number of DXA units expressed per million of the general population amounted to 11.6 which puts Finland in 18th place among the EU27+2.

In Finland, the estimated average waiting time for DXA amounted to 30 days (18th rank). The reimbursement for DXA was unconditional.

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

Guidelines for the management of osteoporosis were available in Finland 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 Finland.

Finland was one of the few countries with national quality indicators available to measure the quality of care provided to patients with osteoporosis or associated fractures.
Service uptake for osteoporosis in Finland

The condition of service uptake was evaluated with metrics that reflect fracture risk assessment, treatment gap, and management of surgery for hip fractures.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Estimate</th>
<th>Rank among EU27+2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of FRAX® sessions/million people/year</td>
<td>4343</td>
<td>5</td>
</tr>
<tr>
<td>Treatment gap for women eligible for treatment</td>
<td>80%</td>
<td>21</td>
</tr>
<tr>
<td>Proportion of surgically managed hip fractures</td>
<td>&gt;90%</td>
<td></td>
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</tbody>
</table>

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 Finland, the use of FRAX® amounted to 4343 sessions/million in 2019 with an increase of almost 900% 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 Finland, the treatment gap amongst women increased to 80% in 2019, compared to 69% in 2010. In the EU27+2 the average gap was 71% but ranged from 32% to 87%.

For Finland, the average waiting time for hip fracture surgery after hospital admission was reported to be 1-2 days. The proportion of surgically managed hip fractures was reported to be over 90%.

Acknowledgments
SCOPE Corresponding National Society based in Finland
• Finnish Osteoporosis Association
www.suomenosteoporoosiyhdistys.fi

References

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