IOF International Osteoporosis Foundation

SCOPE '21 ScoreCard for OsteoPorosis in Europe

# Switzerland

## SCORECARD FOR OSTEOPOROSIS IN EUROPE (SCOPE)

# Epidemiology, Burden, and Treatment of Osteoporosis in Switzerland

This document highlights the key findings for Switzerland, published in "*Osteoporosis in Europe: A Compendium of country-specific reports*"[1]. View the complete SCOPE 2021 report[2] and related 29 country profiles at: **https://www.osteoporosis.foundation/scope-2021**

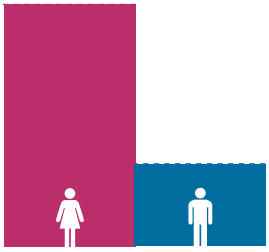
## BURDEN OF DISEASE

### Individuals with osteoporosis in Switzerland

**524,000**
INDIVIDUALS WITH OSTEOPOROSIS IN 2019

**78.7%**
WOMEN

**21.3%**
MEN



The prevalence of osteoporosis in the total population amounted to 6.1%, on par with the EU27+2 average (5.6%). In Switzerland, 22.6% of women and 6.6% of men aged 50 years or more were estimated to have osteoporosis.

### New fragility fractures in Switzerland

**82,000**
NEW FRAGILITY FRACTURES
IN 2019

**226**
FRACTURES /DAY

**9.4**
FRACTURES /HOUR

The number of new fragility fractures in Switzerland in 2019 was slightly decreased compared to 2010, equivalent to a decrement of 0.9 fractures per 1000 individuals, totalling 23.5 fractures/ 1000 individuals in 2019.

### Estimated annual number of deaths associated with a fracture event

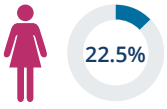
In addition to pain and disability, some fractures are associated with premature mortality. SCOPE 2021 showed that the number of fracture-related deaths varied between the EU27+2 countries, reflecting the variable incidence of fractures rather than standards of healthcare.

SWITZERLAND
**107/100,000**
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 7.1% and 22.5%, respectively, placing Switzerland in the upper tertile of risk for both men and women.

**THE NUMBER OF FRAGILITY FRACTURES IN SWITZERLAND 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


**+37.5%**

Age is an important risk factor for fractures. The Swiss population aged 50 years or more is projected to increase by 18.7% between 2019 and 2034, significantly above the EU27+2 average of 11.4%. The increases in men and women aged 75 years or more are even more marked; 57.0% for men; 39.1% 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 Switzerland accounted for approximately 4.5% of healthcare spending (i.e., €3.4 billion out of €74.9 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** | **€2.62 billion** |
| **Ongoing cost resulting from fractures in previous years** (long-term disability costs) | **€746 million** |
| **Cost of pharmacological intervention** (assessment & treatment) | **€60 million** |
| **Total direct cost** (excluding the value of QALYs* lost) | **€3.4 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 Switzerland was €402.8/person, while in 2010 the average was €190.2/person (increase of 112%).

The 2019 data ranked Switzerland in 1st 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 Switzerland

| Measure | Estimate |
|---|---|
| **Established national fracture registries** | No |
| **Osteoporosis recognised as a specialty** | No |
| **Osteoporosis primarily managed in primary care** | No |
| **Other specialties involved in osteoporosis care** | Endocrinology, Rheumatology, Gynaecology, Geriatrics, Internal medicine |
| **Advocacy areas covered by patient organisations** | Peer support |

Despite the lack of established national fracture registries, the national data on hip fracture rates are of high quality in Switzerland. The administrative and medical statistics database of the Swiss Federal Statistical Office (SFSO) provides data on a national basis for hospital admissions[3].

In Switzerland, 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 Switzerland, only the area of peer support was covered.

## 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 Switzerland

**100%**
REIMBURSEMENT OF OSTEOPOROSIS MEDICATIONS

**26.9**
AVAILABLE DXA UNITS/MILLION INHABITANTS

**YES**
FRAX® RISK ASSESSMENT MODEL IS AVAILABLE

**€70**
DXA COST

**1-10%**
OF HOSPITALS HAVING FRACTURE LIAISON SERVICES

Switzerland 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 26.9 which puts Switzerland in 5th place among the EU27+2. Furthermore, the availability of Trabecular Bone Score (TBS), which measures bone quality, was second highest in Switzerland comparing all EU27+2 countries. The estimated average waiting time for DXA amounted to 14 days (10th rank). The reimbursement for DXA was conditional.

National fracture risk assessment models such as FRAX® and TOP (Tool Osteoporose Plattform) were available in Switzerland, 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 1-10% of hospitals in Switzerland.

In some surveyed countries, national quality indicators were available that allow to measure the quality of care provided to patients with osteoporosis or associated fractures. However, no use of national quality indicators was reported for Switzerland.

## SERVICE UPTAKE

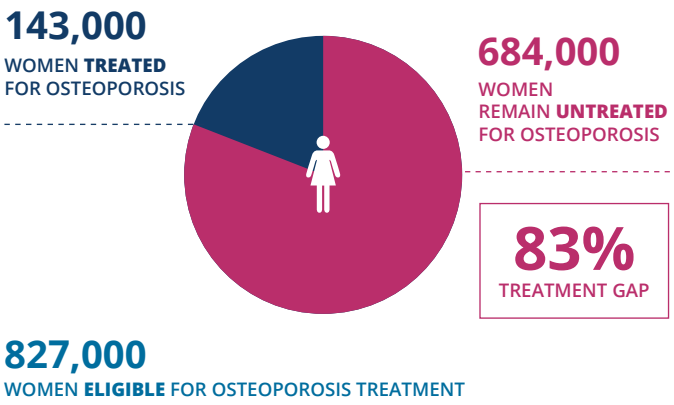
### Service uptake for osteoporosis in Switzerland

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 | 3702 | 6 |
| Treatment gap for women eligible for treatment | 83% | 25 |
| 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 Switzerland, the use of FRAX® amounted to 3702 sessions/million in 2019. No data were available for 2010.

### 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 Switzerland, the treatment gap amongst women **increased to 83%** in 2019, compared to 56% in 2010.
In the EU27+2 the average gap was 71% but ranged from 32% to 87%.

For Switzerland, 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%.

## SCORECARD

| Burden of Disease | |
|---|---|
| Hip Fracture Risk | |
| Fracture Risk | |
| Lifetime Risk | |
| FRAX® Risk | |
| Fracture Projections | |

| Policy Framework | |
|---|---|
| Quality of Data | |
| National Health Priority | |
| Care Pathway | |
| Specialist Training | |
| Society Support | |

| Service Provision | |
|---|---|
| Treatment | |
| Availability of DXA | |
| Access to DXA | |
| Risk Models | |
| Guideline Quality | |
| Liaison Service | |
| Quality Indicators | |

| Service Uptake | |
|---|---|
| FRAX® Uptake | |
| Treatment Gap | |
| Δ Treatment Gap | |
| Waiting Time for Hip Fracture Surgery | |

*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.*

Switzerland scores resulted in a 3rd place regarding Burden of Disease. The combined Healthcare Provision (Policy Framework, Service Provision, and Service Uptake) scorecard resulted in a 20th place for Switzerland. Accordingly, Switzerland 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. Comparative data for Switzerland was not available since Switzerland was not included in the 2010 scorecard.


## Acknowledgments

**SCOPE Corresponding National Society based in Switzerland**

- **Swiss Association against Osteoporosis (SVGO)**
www.svgo.ch


### 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
3. Lippuner K, et al. **Comparative trends in hospitalizations for osteoporotic fractures and other frequent diseases between 2000 and 2008**. Osteoporos Int. 2012



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*This report was supported by an unrestricted grant from Amgen.*