

BROKEN BONES, BROKEN LIVES:

A roadmap to solve the fragility
fracture crisis in Germany



FOREWORD

With fragility fractures affecting one in three women and one in five men aged 50 or above, nearly everyone has a family member or friend who has been affected by a fragility fracture. Yet how many of us stop to question the true cause of fragility fractures and simply assume them to be a 'normal' sign of aging rather than the result of weakened bone? How many of us understand that an initial fracture may be a gateway to further fractures and should be treated as a warning sign and prompt us to seek out preventative treatment?

As Germany's population ages, the incidence and contribution of fragility fractures to the overall healthcare spend continue to increase. In 2017, 765,000 fractures occurred in Germany with an associated healthcare cost of €11.3 billion. This annual expenditure is predicted to increase by nearly 23.2% (to €13.9 billion) by 2030.

Beyond the immediate distress, healing time, and recovery associated with a fracture, an initial fracture significantly increases the risk of subsequent fractures and can trigger a negative spiral of healthcare dependence, escalating expense, and impaired quality of life, despite the existence of treatments and programs for secondary prevention of fragility fractures.

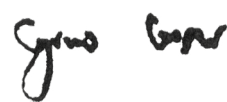
This report, **Broken bones, broken lives: A roadmap to solve the fragility fracture crisis in Germany**, explores the clinical, societal, and cost burdens associated with fragility fractures in Germany. The findings provide evidence that, despite the availability of effective preventative therapies and management approaches for fragility fractures, only 40% of German women aged 50 or above receive preventative treatment in the year following an initial osteoporotic fracture.

The International Osteoporosis Foundation (IOF) is a registered not-for-profit, non-governmental foundation based in Switzerland that has been granted Roster Consultative Status with the Economic and Social Council of the United Nations. IOF functions as a global alliance of patient societies, research organizations, healthcare professionals, and international companies working to prevent osteoporosis and fragility fractures worldwide. Striving for a world without fragility fractures, in which healthy mobility is a reality for all, IOF is dedicated to advancing research and education, promoting policy change, increasing awareness of bone health, and improving patient care.

The development of this report has been supported by UCB.
Full publication of the data included in this report is currently in development.

Secondary prevention of fragility fractures has been neglected for too long. There is an urgent need to recognize fragility fractures as a public health priority and to establish secondary fracture prevention and management as an integral component of healthy aging.

In addition to providing the latest state of play of fragility fracture care, the report serves as a roadmap, which includes policy recommendations that can assist policymakers in offering the best possible care for German citizens in order to reduce the number of fractures and their impact on patients and Germany's healthcare system.



Cyrus Cooper, IOF President

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GLOSSARY

BFO	Bundesselbsthilfeverband für Osteoporose (German Federal Self-Help Association for Osteoporosis)
BMD	Bone Mineral Density
COPD	Chronic obstructive pulmonary disease
CTF®	Capture The Fracture®
DALY	Disability-adjusted life year
DVO	(Germany) Umbrella Group for Osteology
EU6	France, Germany, Italy, Spain, Sweden, and the UK
FLS	Fracture Liaison Service
GDP	Gross domestic product
GP	General practitioner
ICER	Incremental cost-effectiveness ratio
ICUROS	International Costs and Utilities Related to Osteoporotic Fractures Study
IDN	Integrated Doctor's Network
IOF	International Osteoporosis Foundation
LTC	Long-term care
MOF	Major osteoporotic fracture (hip, spine, humerus, or forearm fractures)
Non-MOF	Pelvis, rib, tibia, fibula, clavicle, scapula, sternum, and other femoral fractures
QALY	Quality-adjusted life year



EXECUTIVE SUMMARY

This report provides an overview of the burden and management of fragility fractures in Germany and compares the national reality to that of the EU6 nations (France, Germany, Italy, Spain, Sweden, and the UK). The report not only aims to highlight the burden and challenges posed by fragility fractures, but also to signpost opportunities for increased efficiencies in fragility fracture management and to realize improvements in patient care.

As Germany's population ages, the challenge of preserving the independence and active lifestyle of the aging population has become a multifaceted challenge that technology, social initiatives, and healthcare policy can help tackle.

With approximately **765,000 new broken bones** occurring in Germany in 2017, fragility fractures are a major obstacle to healthy aging; affecting the independence and quality of life for **more than 5 million women and men** living with osteoporosis in Germany.

Fragility fractures can be prevented, but their prevention and management have long been neglected despite the massive associated costs on the German healthcare system (**€11.3 billion in 2017**) and these are set to increase to €13.9 billion by 2030.

The burden of fragility fractures in Germany exceeds that associated with other major chronic diseases, such as dementia, stroke, and chronic obstructive pulmonary disease (COPD), and compares to that of lung cancer.

After a fragility fracture, individuals are **five times** more likely to experience a second fracture within the next 2 years. Despite this, an estimated **60%** of German women aged 50 and above remain untreated within a year of an osteoporotic fracture. Not unique to Germany, this massive treatment gap is observed consistently across Europe, reflecting the low importance that has been given to fragility fractures to date and the current urgency to prioritize post-fracture care in our aging societies before costs get out of control.

With life expectancy continuing to increase, fragility fracture incidence in Germany is predicted to increase by almost 18.5% by 2030, **now** is the time to **break** the cost spiral, and take action to put an end to the dire consequences of fractures on patients.

Policies have a significant role to play in promoting, funding, and implementing care solutions. Coordinated care models, such as integrated care contracts, have proven effective: reducing further fractures and lessening the resultant burden on both individuals and the healthcare system.

While coordinated care models appear as a universal solution to improve patients' diagnosis, treatment, and follow-up, local policy solutions adapted to the specificities of healthcare systems and policies – within and between countries – should also be considered.

In recognition of the growing fragility fracture burden, the national roadmap for Germany calls for policy efforts to be focused on: increasing patient and political awareness of fragility fractures and opportunities to minimize the associated impact on individuals and society; greater multidisciplinary working to develop and deliver robust, integrated care models and improve consistency of care and long-term follow-up of high-risk patients.

DID YOU KNOW THAT...

- Osteoporosis (which means 'porous bone') is a disease that weakens the density and quality of the bone, thus increasing the risk of fracture. The loss of bone is symptomatically silent and progressive, until the first fragility fracture occurs due to a low-trauma event, such as a fall from standing height or even a minor bump¹
- One in five men and one in three women aged 50 and above will experience a fragility fracture in their remaining lifetime²
- A fragility fracture is a warning sign that has to be taken seriously: a fracture increases the risk of a subsequent fracture, which can occur at a different site³
- It is not only important to treat the existing fragility fracture but also to prevent subsequent ones, i.e. secondary fracture prevention⁴
- "By missing the opportunity to respond to the first fracture, healthcare systems around the world are failing to prevent the second and subsequent fractures" (Professor Kristina Åkesson)⁵

“ I was in constant pain and had major problems in my professional life. ”



Edmund, Germany

THE SILENT BURDEN OF FRAGILITY FRACTURES FOR INDIVIDUALS AND HEALTHCARE SYSTEMS



Something else that affects my everyday life is fatigue. Pain results in incredible fatigue, which I think is difficult for others to be able to understand.

Anita, Sweden



Fragility fractures affect men and women across Germany

Prevalence of osteoporosis in Germany

Approximately...

4.2 million

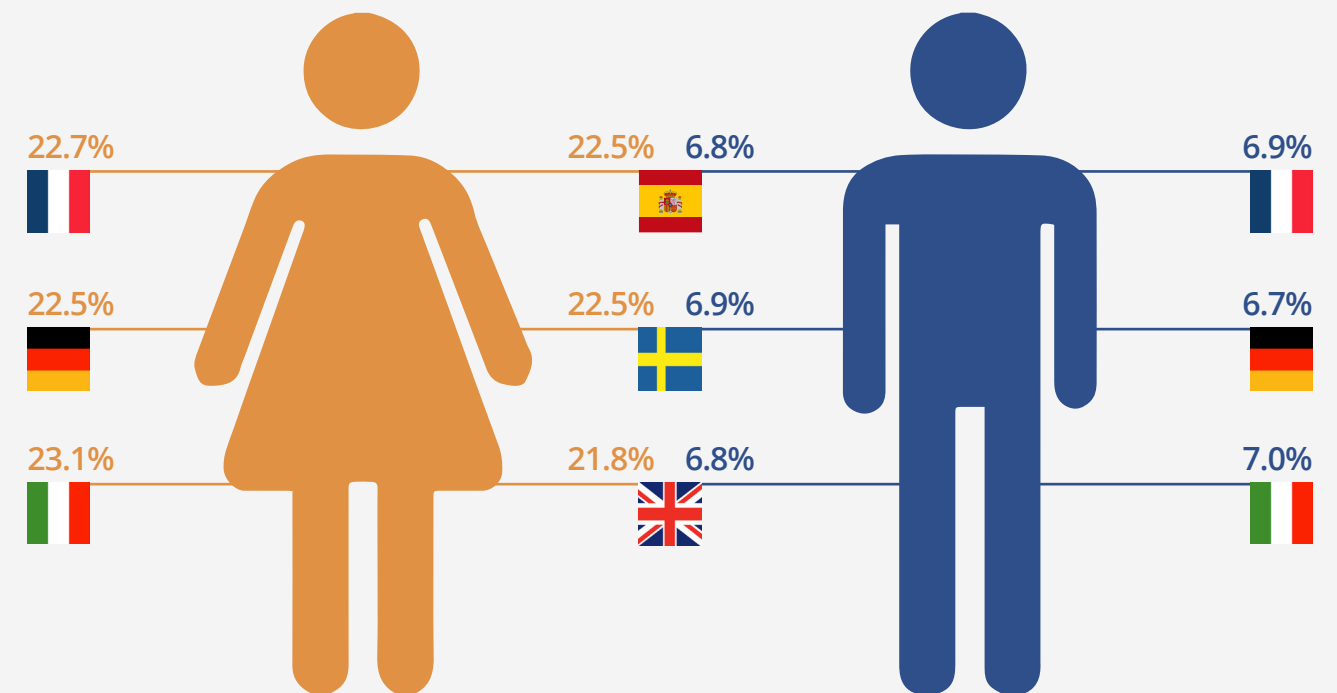


1.1 million



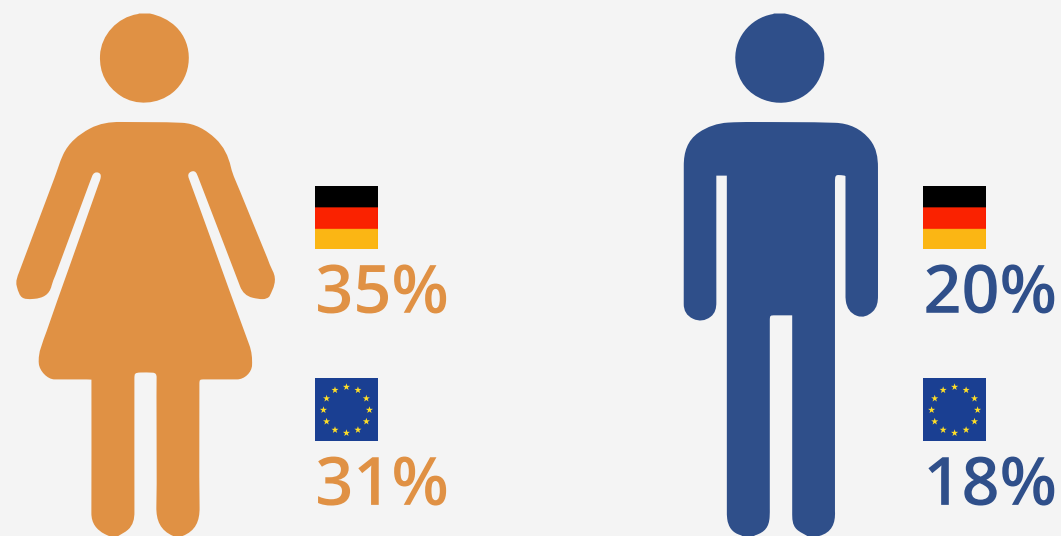
...5.3 million people in Germany have osteoporosis.⁶

Prevalence of osteoporosis in Germany (22.5% for women; 6.7% for men) over the age of 50 years is comparable to that of France, Italy, Spain, Sweden, and the UK, which together with Germany are hereafter referred to as the EU6 nations:⁷⁻¹¹



Lifetime risk of fragility fractures

At the age of 50 years, the remaining lifetime risk of a major osteoporotic fracture for German citizens is slightly higher than that of the collective EU6 population:⁷



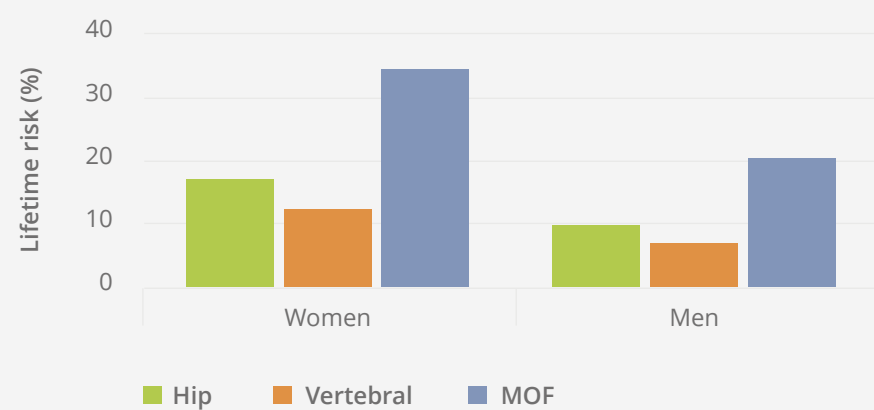
The lifetime risk of sustaining a fragility fracture varies for women and men and by fracture site.

There is a marked difference in the risk of fracture between the EU6 countries, with Northern European countries having the highest fracture rates observed worldwide.

The reasons for the difference in fracture risk between countries are unknown and cannot be explained by differences in bone density. However, plausible factors include differences in body mass index, low calcium intake, reduced sunlight exposure and, perhaps the most crucial factor, socio-economic prosperity, which, in turn, may be related to low levels of physical activity.^{12,13}

Regardless of differences in fracture risk, the number of fractures in all countries is expected to increase due to an increasingly elderly population.

Lifetime risk of fragility fracture from the age of 50 years in Germany^{2,7,12,14-20}



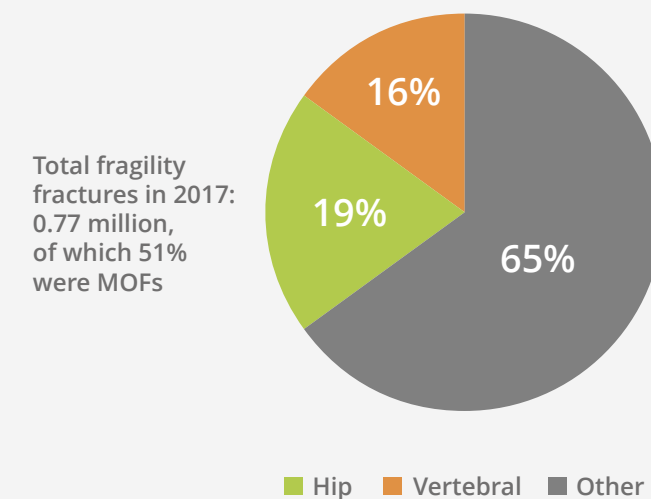
MOF, major osteoporotic fracture (hip, spine, humerus, or forearm fractures)

Fragility fracture incidence

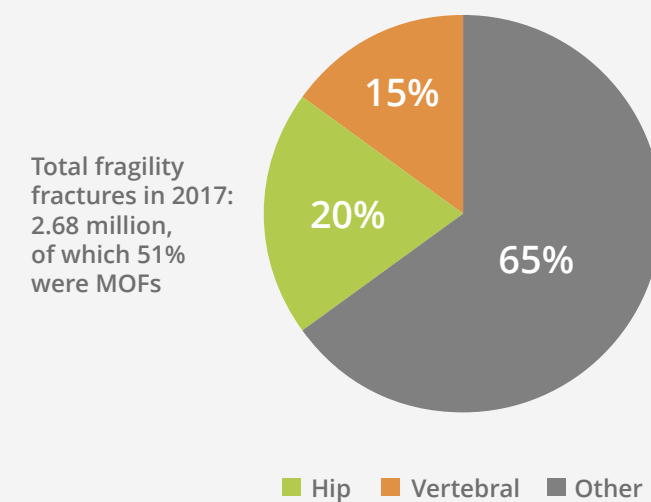
An estimated 765,000 fragility fractures occurred in Germany in 2017.⁶ The total number for fractures reflects the totals for hip fractures, vertebral (clinical spine) fractures, other MOFs, and 'other' osteoporotic fractures in both men and women. MOFs include hip, vertebral (clinical spine), forearm, and humerus fractures. For this analysis, 'other' osteoporotic, or non-MOF, fractures include fractures of the pelvis, rib, tibia, fibula, clavicle, scapula, sternum, and other femoral fractures.⁷

Estimated number of fragility fractures in Germany and the EU6 in 2017, by fracture category

Germany: distribution of fracture type



EU6: distribution of fracture type

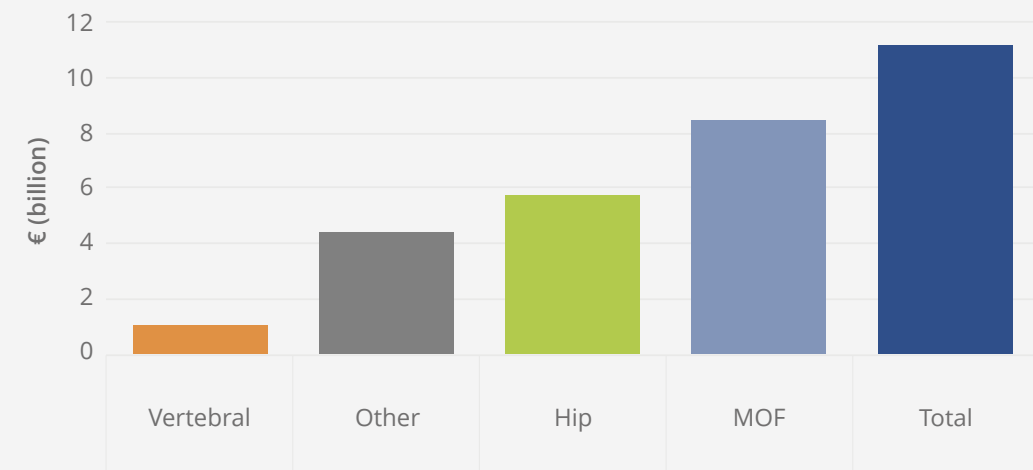


Fragility fractures incur substantial healthcare costs

Fragility fractures are associated with significant healthcare costs

In 2017, fracture-related costs totaled approximately **€11.3 billion** in Germany.⁶ Hospital admission and length of stay in secondary care following a fracture are important drivers of fracture-related costs.

Estimated annual fracture-related costs in Germany in 2017



Fracture-related costs:^{21,22}



mostly occur in the first year following a fracture



differ between fracture sites and, to some extent, reflect the severity of fracture



tend to be highest with hip fractures, as this is the most severe fracture site

Fragility fractures place a high burden on patients and healthcare systems

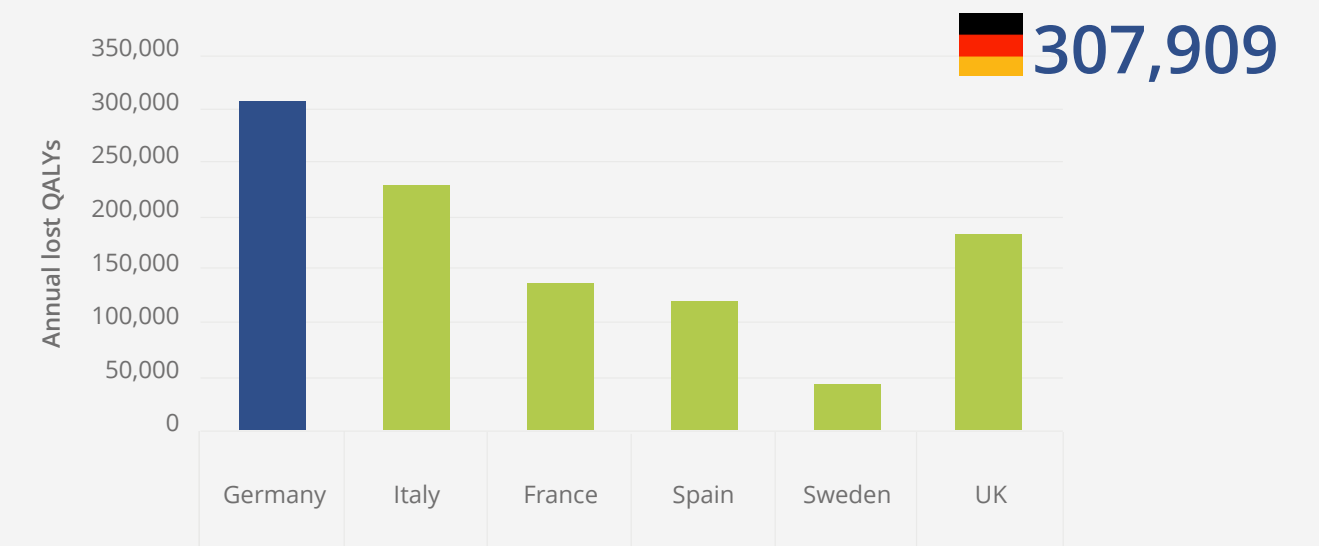
The burden of fragility fractures on individuals can be demonstrated in terms of annual loss of quality-adjusted life years (QALYs).

QALYs are a measure of the state of health of a person or group in which the benefits, in terms of length of life, are adjusted to reflect the quality of life. One QALY is equal to 1 year of life in perfect health. QALYs are calculated by estimating the years of life remaining for a patient following a particular treatment or intervention and weighting each year with a quality-of-life score (on a 0 to 1 scale). It is often measured in terms of the patient's ability to carry out the activities of daily life, and freedom from pain and mental disturbance.²³

The loss of QALYs as a result of fragility fractures varies across the EU6 countries. These differences are largely driven by variations in the risk of fractures and age distribution between countries.⁶

The total health burden in 2017 due to fragility fractures in Germany is estimated to be 307,909 QALYs, 65% of which is attributable to fractures occurring among women.⁶

Total annual loss of QALYs across the EU6 nations in 2017



Fragility fractures have a multifaceted impact on the individual and society

Reduced independence and lifestyle impairment

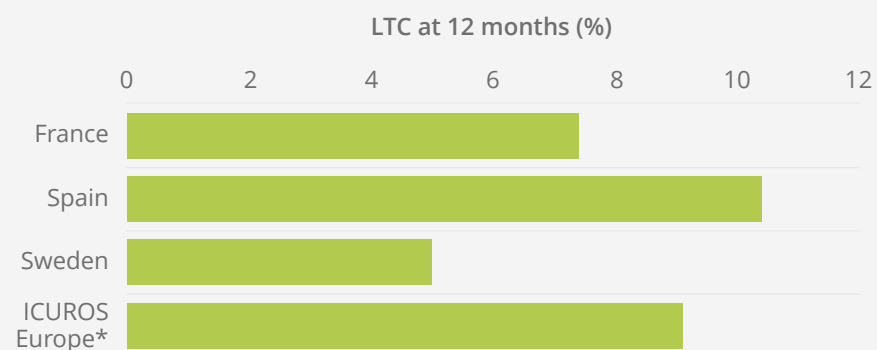
Reduced independence can be one of the most distressing outcomes for fracture patients. The disability associated with hip fractures can be severe. One year after hip fracture, 40% of patients are still unable to walk independently, and 80% are restricted in other activities, such as driving and grocery shopping.²⁴

A fracture not only affects people physically, but also emotionally. Knowledge of their increased fracture risk can negatively affect patients' outlook, causing them to change their levels of social interaction and to avoid certain activities: impairing their overall quality of life.²⁵

Several European studies have demonstrated the physical, emotional, and financial strains that long-term loss of independence and mobility can put on patients, their relatives, and friends, potentially leading to the need for institutional care, particularly in older age groups.²⁶

Across Europe, the proportion of patients that move into long-term care (LTC) within a year of sustaining a hip fracture increases with age, from 2.1% at age 50–60 years to **35.3%** above 90 years.⁶

Proportion (%) in LTC at 12 months after a hip fracture by country⁶



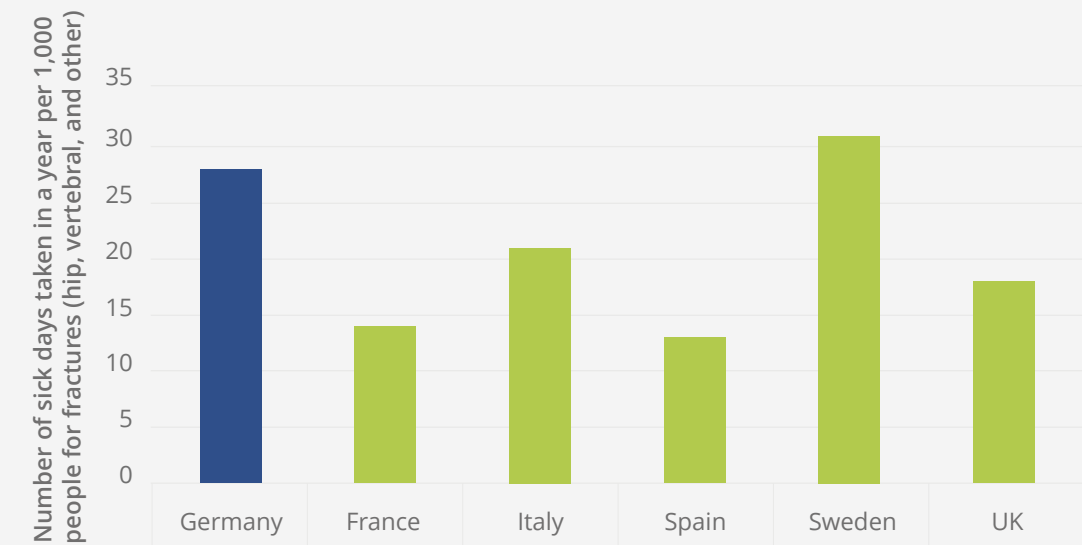
*International Costs and Utilities Related to Osteoporotic Fractures Study (ICUROS) Europe: Austria, Estonia, Spain, France, Italy, and Sweden

Fragility fractures can significantly impact the working population

Although fragility fractures mostly affect people in later life, an estimated 20% of fractures occur at pre-retirement age.² In 2017, a total of 1.38 million sick days were taken in Germany among individuals of pre-retirement age affected by fragility fractures.²⁷

An average number of 28 sick days are taken per 1,000 people following a fragility fracture in Germany, which is among the highest of all the EU6 nations.⁶

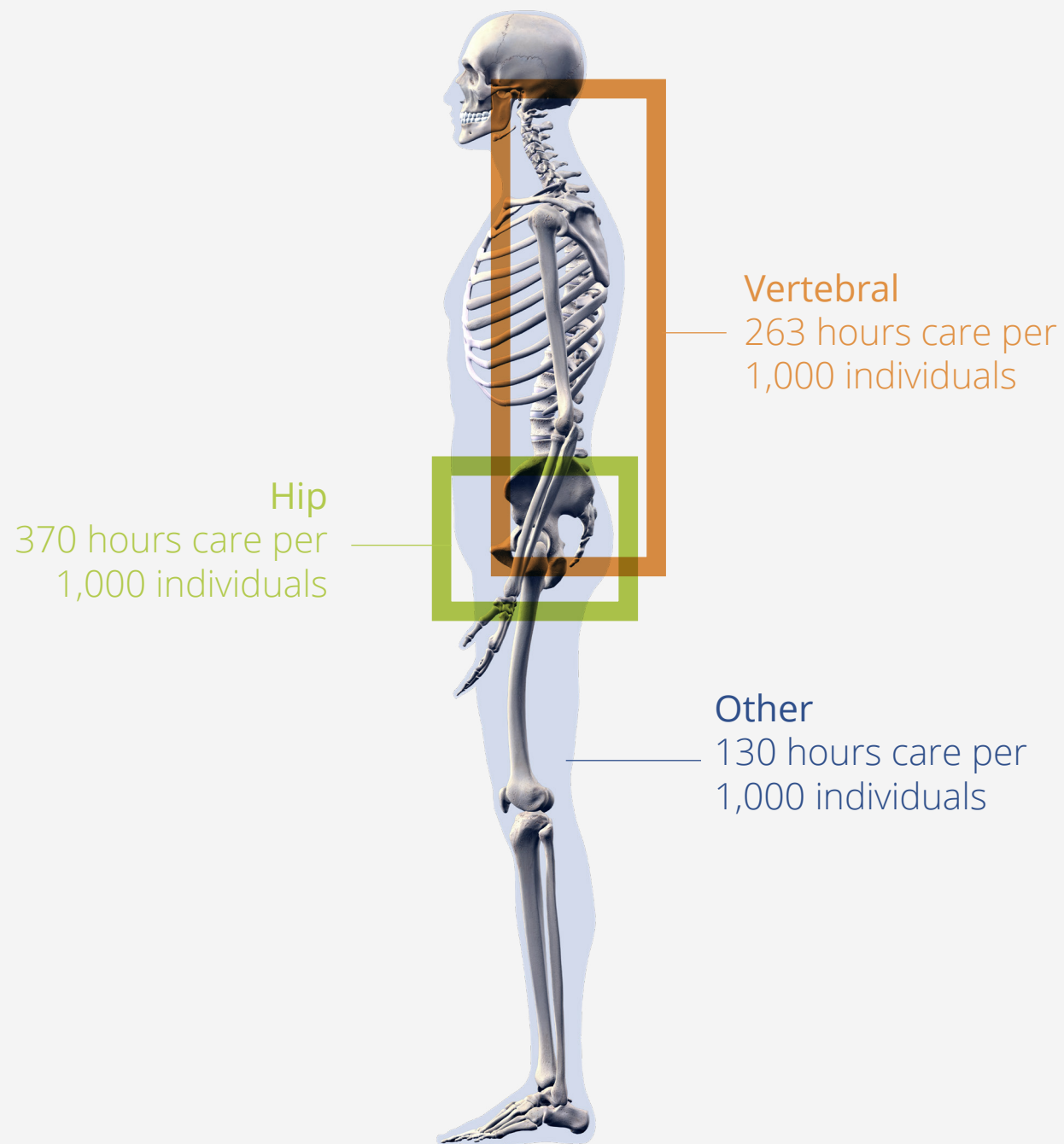
Average sick days taken after fragility fracture per 1,000 people, by EU6 country



Patients suffering fragility fractures depend on care from family and friends

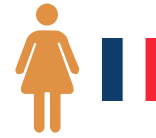
As a result of reduced mobility and ability to complete activities of daily living, individuals who have suffered a fragility fracture may rely on informal caregivers, such as family members or friends.

During the first year after a fracture, the hours of care provided by relatives vary greatly by fracture type and country.*⁶ **The more serious the fracture, the more support is needed.**



*To measure the average burden placed on informal caregivers per year, survey responses from ICUROS²⁸⁻³⁰ were also used to determine the caregiver burden due to osteoporotic fracture. It was measured in terms of hours of care per year provided by relatives in ICUROS Europe (a substitute measure for the EU6), as well as selected countries.

FRAGILITY FRACTURES IN THE CONTEXT OF PUBLIC HEALTH PRIORITIES

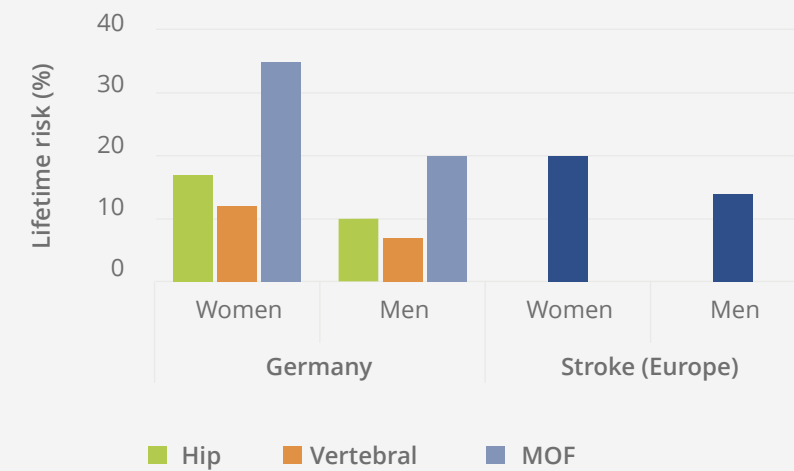


I can no longer run to catch a bus. I no longer feel young.
Maryvonne, France



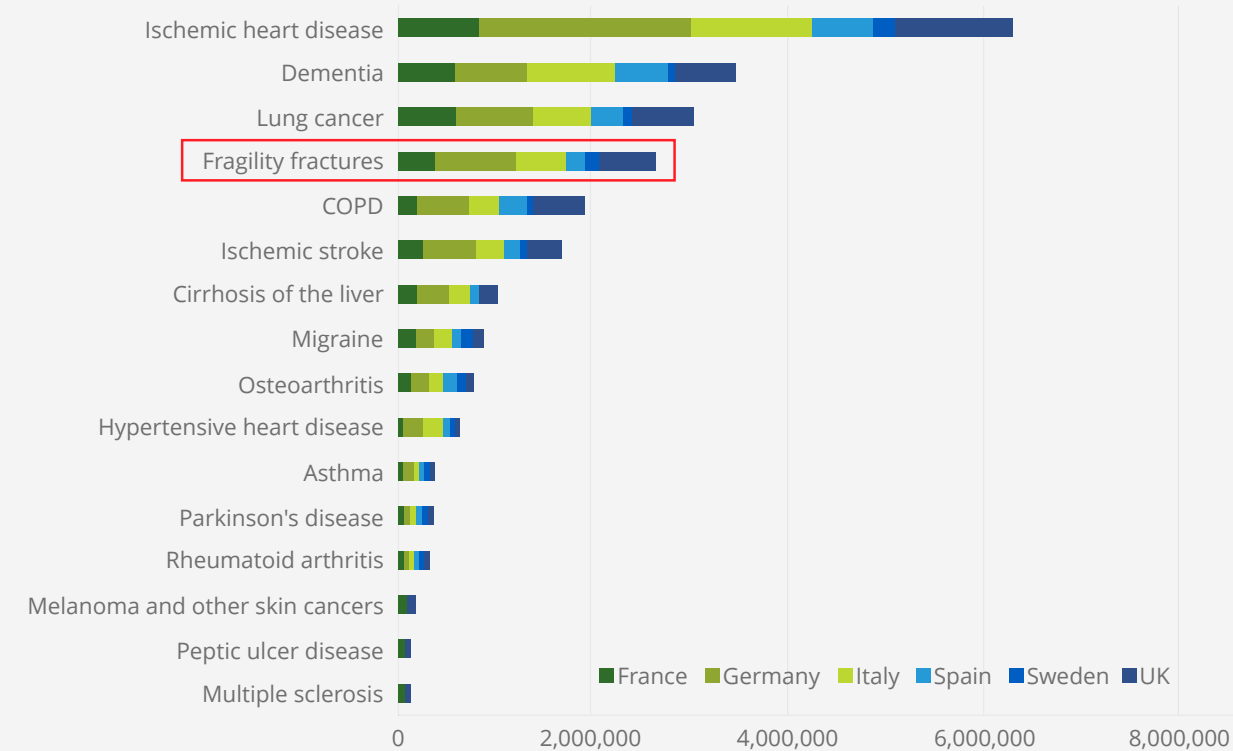
Fragility fractures represent a health risk for individuals aged 50, or above. In Germany, **the lifetime risk of suffering a MOF at age 50 years** (35% for women; 20% for men) is **higher compared to the lifetime risk of a stroke** for both women (20%) and men (14%) in Europe.³¹

Lifetime risk of fragility fracture from the age of 50 years in Germany and the equivalent risk of stroke in Europe^{2,7,12,14-20}



The fragility fracture burden in the EU6 is greater than that of many other chronic diseases (including COPD). It is surpassed only by ischemic heart disease, dementia, and lung cancer.³²

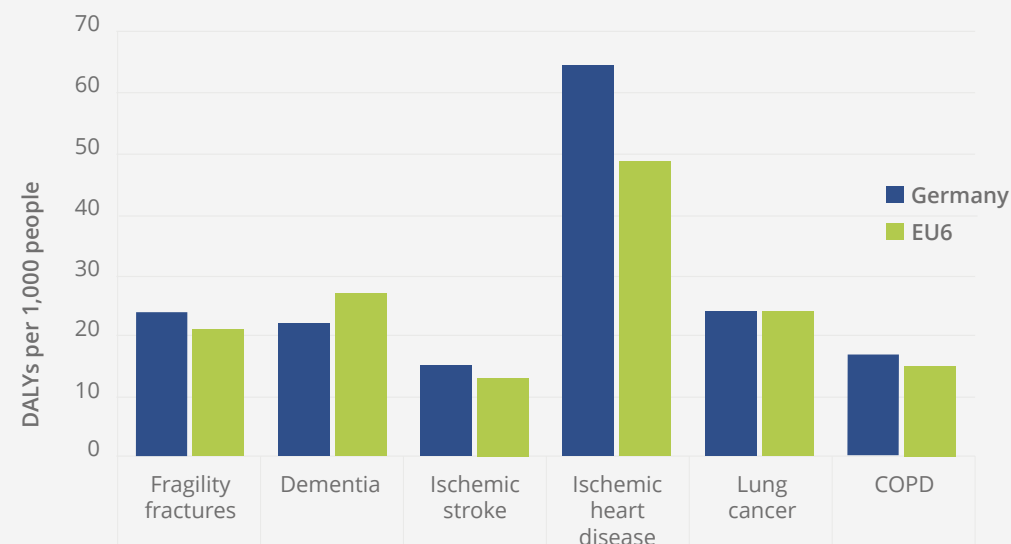
Country contribution to total disability-adjusted life years (DALYs) by disease in the EU6 in 17 selected diseases



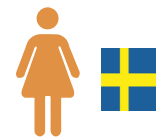
Fragility fractures are the fourth leading cause of chronic disease morbidity, rising from a ranking of sixth in 2009. Across the EU6, fragility fractures now account for 2.6 million DALYs (a measure of the impact of a disease or injury in terms of healthy years lost)²³ annually, more than for hypertensive heart disease or rheumatoid arthritis.⁷

In Germany, an estimated 24 DALYs are lost per 1,000 individuals aged over 50 years due to fragility fractures. The German burden is higher than the national burden associated with other major chronic diseases of aging, such as stroke.³²

DALYs per 1,000 people (aged over 50 years) by disease in Germany and the EU6



FRAGILITY FRACTURES ARE A GROWING CHALLENGE IN THE PUBLIC HEALTH LANDSCAPE



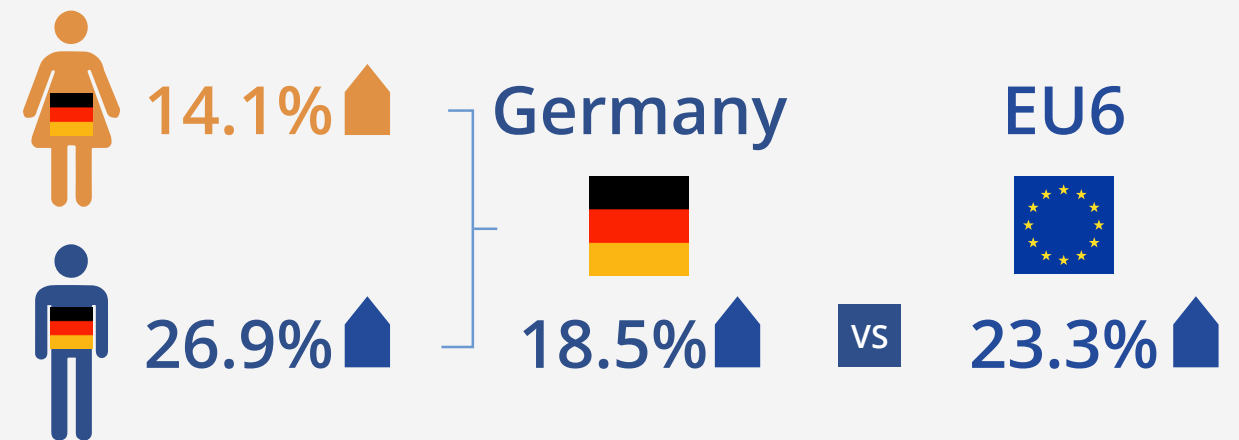
My daily life has changed completely. I now walk with two canes. I can't bend down and I'm constantly in pain. I cannot carry things and, therefore, cannot go shopping. I miss my active life, very, very much.

Inger, Sweden

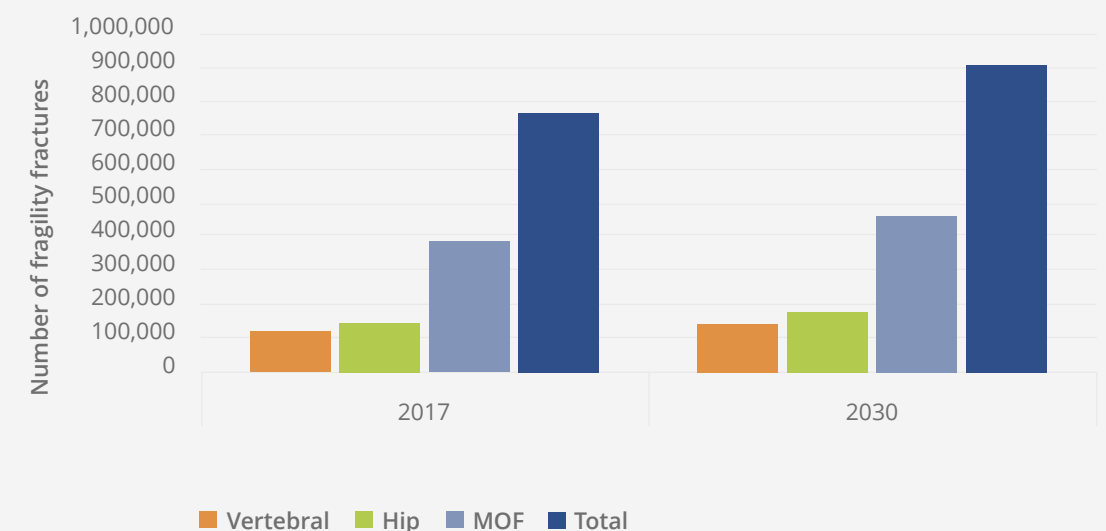


An ever-growing public health challenge is emerging: an estimated 765,000 fragility fractures occurred in Germany in 2017 and the annual incidence is projected to increase to almost 1 million (907,000) by 2030.⁶

The predicted increase in fracture incidence in Germany (18.5%) is marked, although slightly lower than predictions for the EU6 average over the same period (23.3%).⁶

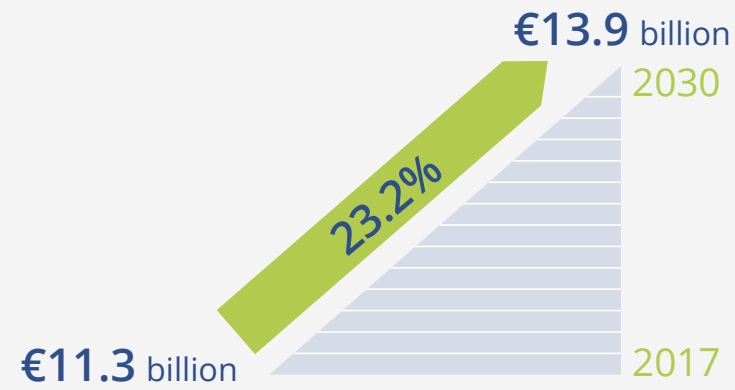


Estimated number of fragility fractures by fracture category for Germany in 2017 and 2030

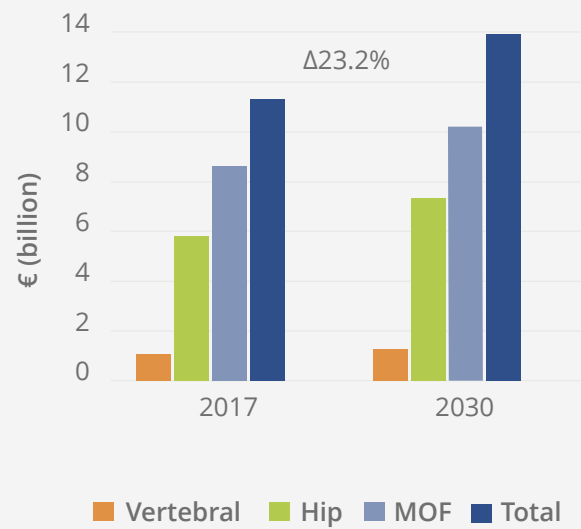


Fracture-related costs are set to rise

With life expectancy in Germany increasing, so too is the fragility fracture incidence and related use of healthcare services. Fracture-related costs in Germany are projected to increase by almost one-quarter (23.2%) between 2017 and 2030, comparable to the overall rate for the EU6 nations (27.7%).⁶



Estimated annual fracture-related costs in 2017 and 2030, and percentage change for Germany



Δ percentage change for all fragility fractures

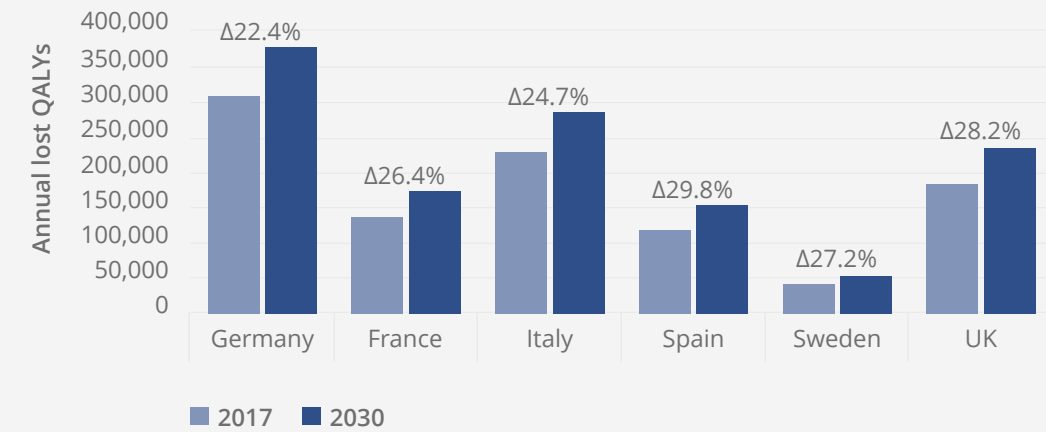


Although hip fractures make up **1/5** of total fractures, they are estimated to incur an estimated **50%** of total fracture-related costs

Fracture-related patient burden is set to increase

Based on population projections, the QALY losses associated with fragility fractures will increase between 2017 and 2030, with Germany facing an increase of 22.4% over the period; slightly lower than the EU6 average of 25.6%.⁶

Total annual loss of QALYs by country in 2017 and 2030, and percentage change



Δ percentage change for all fragility fractures



EFFECTIVE MANAGEMENT CAN IMPROVE OUTCOMES AND REDUCE COSTS



If the fracture I suffered in my spine had been spotted earlier than it was, I would have been spared a great deal of pain and suffering.

Christine, UK



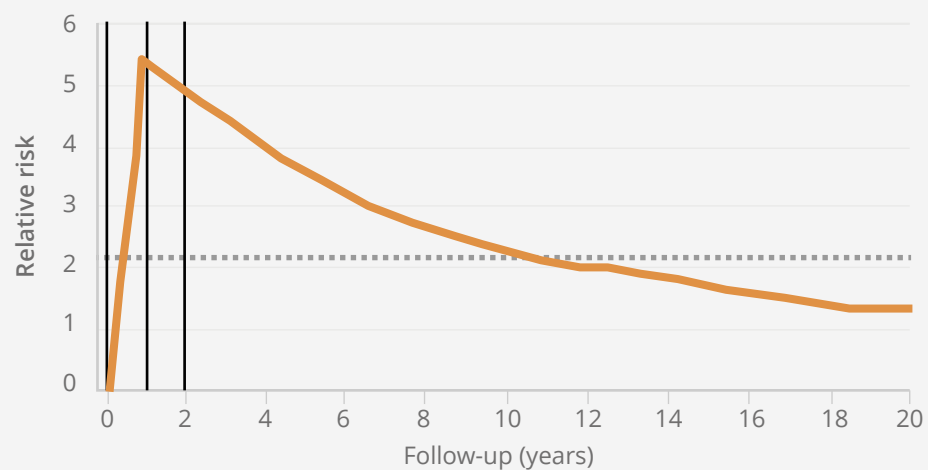
One fragility fracture leads to another

For women aged 50 to 80, after their first fragility fracture, their risk of a subsequent fracture within the first year after a fracture is **five times greater** than women who have not had a prior fracture.³³

Subsequent fracture risk is highest in the first 2 years following an initial fracture, when there is an **imminent risk** of another fracture at the same, or other, sites.³⁴ This is why it is critically important to identify patients as soon as possible after fracture to optimize fracture prevention treatments and keep the patient from having another fracture.

Similar patterns of imminent fracture risk have been observed in most countries evaluated,^{21,22} but between-country comparisons are limited by data availability.

Relative risk of all subsequent fractures calculated as a mean from the first fracture (grey line) and per separate year of follow-up (orange line)



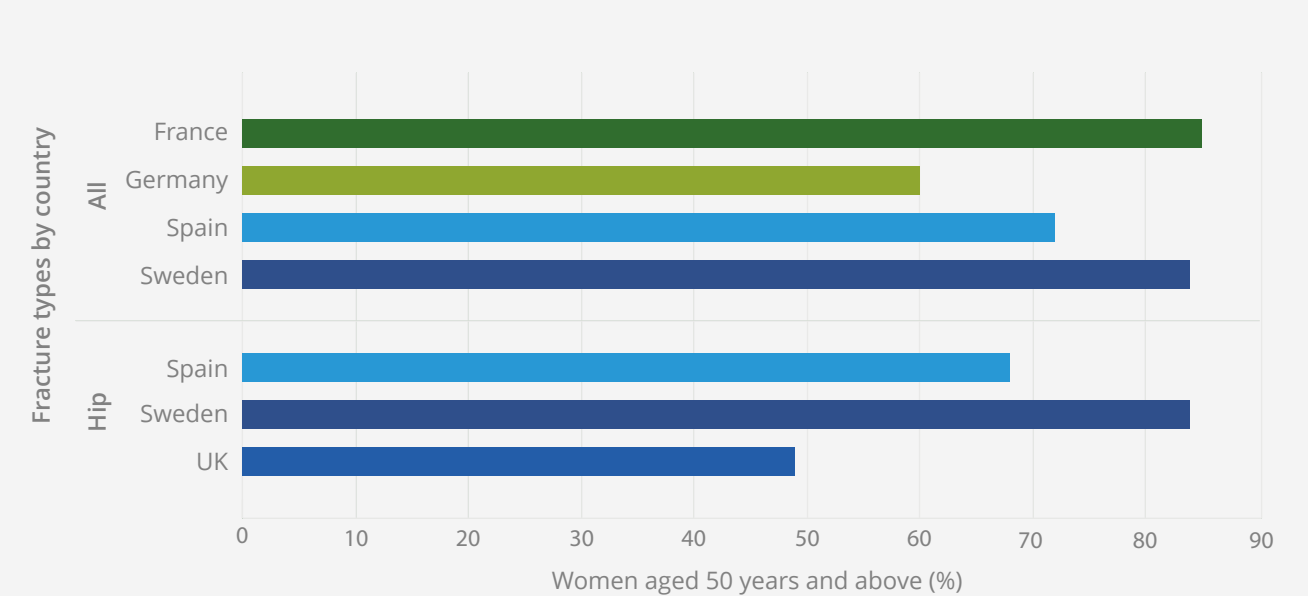
Adapted from van Geel *et al.* 2009³³

Most eligible patients do not receive treatment to prevent fragility fractures following their first fracture

With appropriate medical treatment, many fragility fractures can be avoided.

The DVO Guidelines recommend that all patients should receive treatment after suffering a fragility fracture³⁵ – unfortunately this is not the case. The post-fracture treatment gap is large for all EU6 countries; in the year following an initial fracture, only 40% of women in Germany appear to receive treatment for subsequent fracture prevention.⁶

Proportion (%) of female patients (50 years and above) untreated within a year of osteoporotic fracture^{6,36,37}



Multidisciplinary models for secondary fracture prevention can contribute to closing the treatment gap

Post-fracture coordinated care models, such as integrated care contracts and Fracture Liaison Services (FLSs), are multidisciplinary healthcare delivery models for secondary fracture prevention. Systematically, they aim to identify, diagnose, and treat (by referral) all eligible patients within a local population who have suffered a fragility fracture with the intention of reducing risk of subsequent fractures. In the FLS model, care is usually coordinated by a dedicated, specialist nurse who helps patients navigate their way through the various departments of relevance (e.g. orthopedic surgery, radiology, and primary care).

Post-fracture coordinated care models, like integrated care contracts, can reduce the risk of re-fracture and mortality by increasing the number of patients being treated and by improving treatment adherence.^{5,38-43} Data from the FLS in Munich, Bavaria, reported good diagnostic and treatment outcomes: 40% of orthogeriatric patients were diagnosed with osteoporosis for the first time at the clinic and 65% were discharged with an osteoporosis therapy.⁴²

At global level, a recently published systematic literature review and meta-analysis based on 159 scientific publications highlighted the benefits of post-fracture care models:⁴⁴

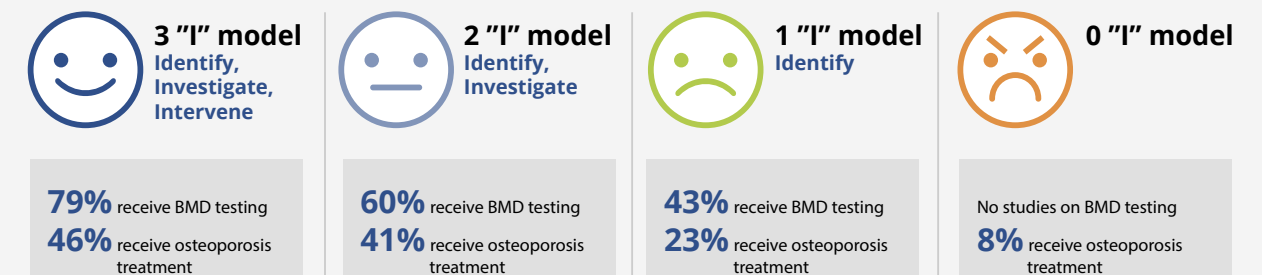
Outcome measure ⁴⁴	Effect of FLS (absolute change)	95% CI	Duration of follow-up (months)	Number of studies included
BMD testing	+24%	0.18 to 0.29	3-26	37
Treatment initiation	+20%	0.16 to 0.25	3-72	46
Treatment adherence	+22%	0.13 to 0.31	3-48	9
Re-fracture rate	-5%	-0.08 to -0.03	6-72	11
Mortality	-3%	-0.05 to -0.01	6-72	15

BMD, Bone Mineral Density

However, post-fracture care models tend to vary in terms of the services they offer both between and even within countries. Some post-fracture care models focus on identifying and informing patients without taking further action, while others take a more comprehensive approach to investigating, treating, and also monitoring patients. This variation in structure affects the level of impact on health outcomes.⁴³

The effect of different models of care on osteoporosis treatment and frequency of BMD testing were evaluated in a meta-analysis by Ganda et al.⁴⁵

A meta-analysis demonstrated that adoption of the 3 "I" model, with core priorities of Identify, Investigate and Intervene, offered greater effectiveness in patient assessment and treatment than 0-2 "I" models



Adapted from Ganda et al. 2013⁴⁵

The analyses by both Ganda et al. and Wu et al. showed **dramatic increases in BMD testing and osteoporosis treatment initiation**, which further supports the value of post-fracture care coordination to prevent fragility fractures and reduce the overall cost of care for these patients.^{44,45} In Germany, there are a number of coordinated care models available that have the potential to change the landscape of post-fracture care.

Capture The Fracture® (CTF®): A global initiative of IOF

CTF® aims to 'facilitate the implementation of coordinated, multidisciplinary models of care for secondary fracture prevention'. CTF® has created a set of internationally endorsed standards and guides for best practice to bridge the gap between FLS providers and to help in the development and implementation of new FLSs. CTF® includes the largest network of individual FLS providers in the world. Providers undergo a CTF® audit to determine service quality, with a gold, silver, or bronze star awarded.

There are huge variations between and within countries in terms of the availability of coordinated care models. A CTF® survey reported that such models only existed for 2.8% of responders in Italy and up to 37.5% of responders in Sweden for hospital referrals, reducing to 1-10% for general practitioner (GP) referrals. In contrast, in the UK, the National Osteoporosis Society estimated that 55% of the UK population has access to an FLS.

Coordinated care models are a cost-effective option for patient management

Several studies have shown coordinated care models to be a cost-effective healthcare delivery form in European countries. Although not specifically evaluated for Germany, in Sweden and the UK the cost of improving patient outcomes through a coordinated care model has been estimated to be:^{46,47}



ICER, incremental cost-effectiveness ratio (a statistic used to summarize the cost-effectiveness of a healthcare intervention)

Based on a survey sent to number of coordinated care units in the EU6 enrolled in the IOF's CTF® network, it is estimated that 10–25% of Germany hospitals and 1–10% of GPs report having a referral system for fracture patients.

A recent health economic analysis suggested that the introduction of coordinated care models for all individuals aged over 50 could prevent an estimated 5,423 subsequent fragility fractures in Germany every year. Extension of coordinated care models in this way across Germany would result in an increase in annual care costs (€8.2 million), but also a gain of 2,335 QALYs:⁶

Cost implications of extending a coordinated care model to all individuals over 50 years in Germany



The World Health Organization⁴⁸ provides guidance on how an intervention with a benefit expressed in QALY value equivalent to 1 year's gross domestic product (GDP) per capita or less is considered to be reasonable expenditure, representing the likelihood of achieving at least 1 additional year of healthy life per capita.

With the German GDP estimated to be €46,747,⁴⁹ coordinated care models not only offer **clear cost-effectiveness**, but also the possibility of improved care for the German population.

A ROADMAP TO SOLVE THE FRAGILITY FRACTURE CRISIS IN GERMANY



I don't make sudden movements anymore, and even my friends and acquaintances are not allowed to hug me after I broke five ribs when a good friend hugged me in greeting.

Katy, Germany



As the Germany population ages and the number of elderly adults increases, so too is the expected burden of osteoporosis and associated fragility fractures. Despite this, osteoporosis prevention and treatment is not receiving the priority it deserves by the Government and relevant health policy officials. A joint stakeholder effort (involving physicians, health politicians, health insurances, patient organizations, and social welfare associations) is required to reduce the impact of fragility fractures for patients and the society. Only through joint working can the necessary structural changes in patient care delivery be implemented.

A number of improvements to osteoporosis care and healthcare policy in Germany must be implemented to realize a reduction in the threatened fragility fracture burden:

- Leaders in civil society, politics, and business must recognize the social and economic burden of fragility fractures, as highlighted in this report
- Consistent implementation of the DVO Medical Guidelines by all physicians treating patients with fragility fractures, e.g. orthopedic surgeons, rheumatologists, endocrinologists, osteologists, GPs, radiologists, internists, and geriatricians
- Include the dual X-ray absorptiometry bone density measurement for all high-risk patients within the statutory health insurance service catalog to ensure its proper reimbursement (as is the case in other European countries, such as Austria and France). High-risk patients can be defined as patients who are at risk of having another fracture in the next 1–2 years after a first fragility fracture
- Overcome the existing sectoral split between hospital and outpatient care through consistent use of coordinated care models, such as certified high-quality Integrated Doctor's Networks (IDNs). There are 66 IDNs in Germany that combine healthcare professional expertise, with professional management, information technology platforms, communication to patients, and outcome evaluation. They are funded through incentive-based contracts by sick funds and by regional associations of sick fund-accredited physicians
- Consistent implementation of the newly established discharge management model within the daily treatment pathway to improve patients' access to effective treatment. The new discharge management extends hospitals' responsibilities to guide patient care following discharge from hospital. Through discharge letter recommendations, the new discharge management framework will help GPs identify appropriate follow-up osteoporosis screening and treatment for patients who have experienced a fragility fracture
- A disease management program focusing on osteoporosis (a structured treatment program) could foster a multidisciplinary approach to care, improve the quality of medical care for patients and close the current treatment gap
- Interdisciplinary collaboration is required to develop optimum treatment strategies as bone health transcends many medical disciplines (e.g. GPs, internists, endocrinologists, orthopedists, surgeons, radiologists, gynecologists, geriatrists, pediatricians, rheumatologists, psychologists, and laboratory physicians). The right framework conditions must be created to help foster such interdisciplinary working

- Innovative new treatment options should be listed among the special practice conditions after the Arzneimittelmarkt-Neuordnungsgesetz health technology appraisal process, so that access to innovative and effective therapeutics is not limited via 'pharmaceutical budgets' and restrictions on doctors' ability to prescribe drugs
- Education, information, and active involvement of patients through media and web-based communication platforms
- Strengthen citizens' bone awareness: citizens must be more 'bone-conscious' and be prepared to pay attention to, and actively participate in, their bone health
- Actively support 'functional training' tailored to the needs of patients with osteoporosis and ensure availability of reimbursement through statutory health insurances
- Active support of civil society organizations working within the field of osteoporosis, such as the patient organization BFO and social associations like Sozialverband
- Establish more academic chairs with an osteological focus to help shape and inform the appropriate training of bone experts



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Our vision is a world without fragility fractures,
in which healthy mobility is a reality for all

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