



# Mending Broken Bones

Challenges & Solutions for the  
diagnosis and treatment of  
osteoporosis in South Africa

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# Understanding Osteoporosis

Osteoporosis is a serious medical condition. Its severity and impact on patients and caregivers, however, goes largely unrecognized.

While osteoporosis is often regarded as a disease impacting only post-menopausal women, data demonstrate that this is not true. Without proper diagnosis and treatment, patients' risk of fracture will increase, and treatment costs will continue to climb for insurers.

Osteoporosis is unfortunately seen by many providers and patients as being an unavoidable part of aging and is often not treated proactively.

- Only two of 10 hip-fracture patients are assessed, or treated for osteoporosis
- Osteoporosis fractures account for more bed-days in hospital than the combined admission for strokes, heart attack and breast cancer in women
- One in five patients die within one year of a hip fracture
- Fewer than 50% of patients can live independently after a fracture
- Effective therapies are available and shown to reduce fracture risk by 35-60%<sup>2</sup>

## ABOUT THE DISEASE

Because bone is living tissue, it is constantly being broken down and replaced.

Osteoporosis occurs when the creation of new bone no longer keeps up with the loss of old bone, leading to weakened bones and greater susceptibility to fractures.<sup>1</sup>

Osteoporosis can weaken bones so greatly that even everyday activities, like walking, bending over, or even coughing, can result in a fracture. Osteoporotic fractures are most common in the wrists, upper arm, pelvis, hips and spine.



# Symptoms

Early stages of bone loss typically have no outward symptoms. But common signs and symptoms for patients with osteoporosis include:

- Back pain, caused by a fractured or collapsed vertebra
- Loss of height over time
- Stooped posture
- Bone that breaks easily<sup>3</sup>



## Osteoporosis in South Africa

South Africa is an aging society. Though only 16% of its 60 million people are over the age of 50, that number is expected to grow substantially over the next 20-30 years. The incidence of osteoporosis and related fractures will increase dramatically.<sup>4,5</sup> With aging and urbanization come diet and lifestyle changes, many of which contribute to reduced bone mass.<sup>6</sup>

- **1 in 3 women**, and **1 in 5 men** over the age of 50, will develop an osteoporotic fracture within their lifetime. Population statistics indicate that approximately 4 million South Africans already suffer from osteoporosis.<sup>7</sup>
- **Nearly half** of all South Africans aged 81 and above have osteoporosis.
- **Ethnicity plays a role**, as evidenced by people who will have an osteoporotic fracture:<sup>7</sup>



### Women 50+

- 1 in 4 White
- 1 in 8 Indian
- 1 in 14 Coloured
- 1 in 22 Black



### Men 50+

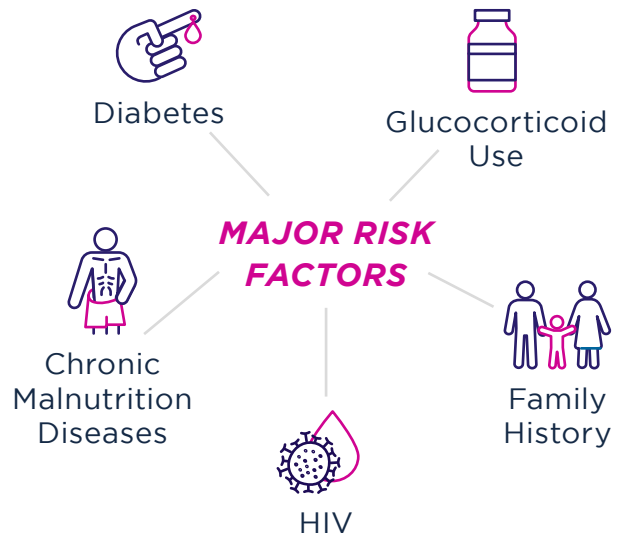
- 1 in 13 White
- 1 in 22 Indian
- 1 in 37 Coloured
- 1 in 52 Black

# Unmet Needs



## Proper Screening & Diagnosis

Screening is often expensive and rarely top of mind for most providers, but it's necessary to diagnose osteoporosis. Screening patients with risk factors for developing osteoporosis will ensure patients are identified and treated before their first fracture. Delayed diagnosis, or no diagnosis, makes an at-risk person even more susceptible to bone fracture, which can have serious consequences. Under-diagnosis and delayed treatment often lead to future fractures and increased mortality.



Even as statistics repeatedly show the tests' value to patients and providers, screening tools continue to go underutilized. Over the last five years, South Africa has seen a decrease in the number of bone density tests given.

Secondary prevention, such as pharmaceutical intervention, can also greatly reduce the risk of first, and additional, fractures.

### *How can policymakers help?*

Health plans and care providers need to engage with patients of all genders and appropriate ages to ensure they're aware of the risk factors that may cause osteoporosis and, if they have risk factors, to insist on a bone density test. Educating patients and providers will help eliminate that preemptive care gap so that patients can be treated before a first fracture.



## Access to Effective Therapies

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There are effective and available treatments to strengthen patient's bones. It's important that patients begin treatment soon after diagnosis to avoid that first fracture — if it hasn't yet occurred. Treatment after the first fracture is key to decreasing mortality rates and complications caused by additional fractures.<sup>8</sup>

Medication rates among South African patients have been declining since 2017. At the same time, out-of-pocket costs have grown, and reimbursements have declined. Treating osteoporosis early, however, offers immense cost savings to insurers as osteoporotic fractures are costly to repair.

### *How can policymakers help?*

Policymakers and health plans can empower care providers and patients to determine the best course of treatment for the patient's needs.



### *Pre-Fracture Needs*

Certain administrative practices prevent or delay patients' access to provider-preferred medications. This includes screening, diagnostic tests and access to appropriate treatments. At the system level, the Council for Medical Schemes can include osteoporosis as a prescribed minimum benefit — which it hasn't been in the past.

These steps can mitigate non-adherence and reduce downstream costs, a win for both patients and for payors.



### *Post-Fracture Needs*

Most osteoporosis patients discover they have the condition after a fracture. If left untreated, Patients are likely to experience another fracture within 18-24 months. Implementing a fracture liaison service is an effective solution for a patient with a fracture and a major cost-saver for payors.





In a fracture liaison service, patients with fragility fractures are referred to an appropriate multi-disciplinary team for further testing and treatment. The initial cost of implementing fracture liaison service may be high, but it saves money and lives — benefitting both the patient and the funders. Long-term costs, such as acute care and hospitalization, are dramatically reduced.

Fracture liaison services have been shown to improve quality of care, reduce fragility fractures, reduce hospitalization and societal costs, and improve long-term cost effectiveness.<sup>9</sup>

With these services in place, providers find:

- 24% more bone mineral density testing
- 20% more treatment initiation
- 22% treatment adherence
- 5% reduction in re-fracture rate
- 3% reduction in mortality

## Conclusion

The stigma of osteoporosis as a disease for old women or unhealthy people is outdated. A person's bones are integral to healthy aging and living longer, more fulfilling lives. Without standardized screening and prescribed care, however, osteoporosis can quickly turn deadly.

As South Africa continues to age and urbanize, its people will be more prone to osteoporosis than ever before. Policymakers can take action to ensure patients know their risk factors, bone density status, access needed treatments, and receive quality care from well-supported caregivers.



# References

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