

# THERE IS AN URGENT NEED TO ADOPT A PROACTIVE APPROACH TO REDUCING FRACTURES



**Osteoporosis is a chronic, progressive disease** characterized by low bone mass and deterioration of bone tissue that causes bone fragility and **increases the risk of fracture.**<sup>1</sup> By 2025, **osteoporosis-related fractures and costs are projected to increase by 48%** to more than **3 million fractures** and **\$25.3 billion in healthcare costs.**<sup>2</sup>

Approximately

## 10 million Americans

are affected by osteoporosis<sup>3</sup>

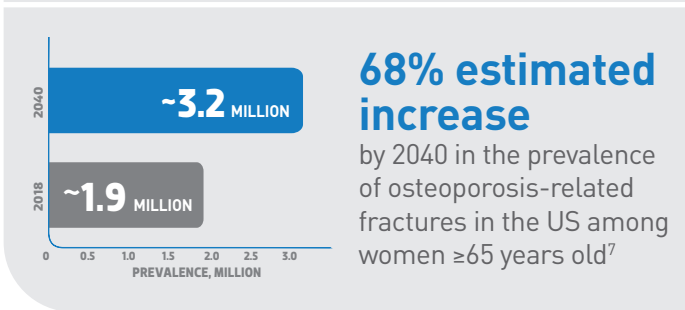
Someone in the US breaks their hip **every 2 minutes**<sup>4</sup>

**1 in 2 women**

**1 in 4 men**

and

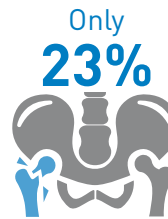
over the age of 50 will have a fracture related to osteoporosis in their remaining lifetime<sup>5,6</sup>



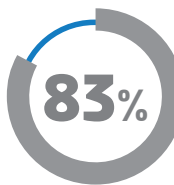
In 2015, **2 million** Medicare patients suffered **2.3 million fractures**<sup>8</sup>



of female Medicare beneficiaries **were evaluated for osteoporosis** with a bone mineral density test, a HEDIS quality measure, within 6 months **following an osteoporosis-related fracture**<sup>8</sup>



of patients who suffered a hip fracture **received treatment to reduce future fracture risk.**<sup>9,\*</sup> Compared to heart attack patients who receive beta blockers to prevent future heart attacks **(96%)**<sup>10,+</sup>



of women with **postmenopausal osteoporosis** who experienced a fracture **were not treated** for the underlying disease of osteoporosis within 6 months following a fracture<sup>11</sup>

## Prior fractures increase the risk of subsequent fractures<sup>12</sup>

An initial fracture is associated with an **86% increased risk of a subsequent fracture**<sup>12,13</sup>

After an osteoporosis-related fracture, postmenopausal women are **5x more likely to suffer another fracture** within the first year, and the risk remains elevated over time<sup>14</sup>

## Subsequent fractures cost more than initial fractures<sup>7</sup>

A subsequent fracture is associated with a **2- to 3-fold increase** in medical costs compared to an initial fracture<sup>15</sup>

The incremental direct medical costs during the 180-day period after a subsequent osteoporosis-related fracture was **over \$20,700**<sup>8</sup>

HEDIS=Healthcare Effectiveness Data and Information Set.

\*Data based on Medicare patients who sustained fragility fractures January 2008-December 2011. Osteoporosis medication prescriptions were determined in the 12 months after the earliest fracture date identified.

+Data based on Medicare patients discharged alive after a heart attack January 2007-October 2010. Patients were grouped based on the timing of first follow-up clinic visit within 1 week, 1 to 2 weeks, 2 to 6 weeks, or more than 6 weeks after hospital discharge.

# Activate change in your organization by implementing a coordinated-care, multidisciplinary model to improve bone health care and reduce the risk of subsequent fractures

## Improving patient outcomes begins with the three “I”s<sup>5,16</sup>



**Identify** individuals who are at risk of osteoporosis-related fracture



**Investigate,** evaluate, assess, and diagnose these patients



**Initiate** appropriate treatment in those patients who need therapy

Establishing a **coordinated-care model** has shown to be cost-effective and an efficient **interdisciplinary case management approach**. It can improve the outcomes of patients with osteoporosis-related fractures and help **prevent subsequent fractures**.<sup>17,18</sup>

**Ensure patients at risk for osteoporosis receive early evaluation and proper diagnosis. Appropriate treatment can help reduce the risk of osteoporosis-related fractures<sup>19</sup>**



Preventing subsequent fractures by **5%-20%**

could save Medicare

**\$310 million-\$1.2 billion<sup>8,\*</sup>**

Amgen and UCB can provide additional educational materials.  
**Contact your account manager for more resources**

\*Data based on the economic and clinical burden of new osteoporosis-related fractures that occurred in 2015 in the Medicare fee-for-service population using information from a large administrative medical claims database.

**References:** 1. National Osteoporosis Foundation. What is osteoporosis and what causes it? <https://www.nof.org/patients/what-is-osteoporosis/>. Accessed November 20, 2019. 2. Burge R, Dawson-Hughes B, Solomon DH, Wong JB, King A, Tosteson A. Incidence and economic burden of osteoporosis-related fractures in the United States, 2005-2025. *J Bone Miner Res*. 2007;22(3):465-475. 3. National Osteoporosis Foundation. Osteoporosis fast facts. <https://cdn.nof.org/wp-content/uploads/2015/12/Osteoporosis-Fast-Facts.pdf>. Accessed November 20, 2019. 4. Agency for Healthcare Research and Quality. Healthcare Cost and Utilization Project. <https://hcupnet.ahrq.gov/#query/eyJBTkFMWVNJU19UWVBFJjpbIkFUX1EiXSwiWUVBUiMiOisiWVJfMjAxNCJdLCJkQVRFRC9SSVpBVElPTi9UWVBFJjpbIkNlUX0NDU0QXSwiUWVJQ0UQUJMRV9UWVBFJjpbIkFUVF9ERVRQXSwiREFUQVNFVF9TT1VSQ0UiOisiRFRnTkltIi19>. Accessed November 20, 2019. 5. U.S. Department of Health and Human Services. *Bone Health and Osteoporosis: A Report of the Surgeon General*. Rockville, MD: U.S. Department of Health and Human Services, Office of the Surgeon General, 2004. 6. National Osteoporosis Foundation. Just for men. <https://www.nof.org/preventing-fractures/general-facts/just-for-men/>. Accessed November 20, 2019. 7. Lewiecki EM, Ortendahl JD, Vanderpuye-Orgle J, et al. Healthcare policy changes in osteoporosis can improve outcomes and reduce costs in the United States. *JBMR Plus*. May 2019. doi:10.1002/jbm4.10192. 8. National Osteoporosis Foundation. Milliman Research Report. Medicare cost of osteoporotic fractures. [http://assets.milliman.com/ektron/Medicare\\_cost\\_of\\_osteoporotic\\_fractures.pdf](http://assets.milliman.com/ektron/Medicare_cost_of_osteoporotic_fractures.pdf). Accessed November 18, 2019. 9. Yusuf AA, Matlon TJ, Grauer A, Barron R, Chandler D, Peng Y. Utilization of osteoporosis medication after a fragility fracture among elderly Medicare beneficiaries. *Arch Osteoporos*. 2016;11(1):31. 10. Faridi KF, Peterson ED, McCoy LA, Thomas L, Enriquez J, Wang TY. Timing of first postdischarge follow-up and medication adherence after acute myocardial infarction. *JAMA Cardiol*. 2016;1(2):147-155. 11. Boytsov NN, Crawford AG, Hazel-Fernandez LA, et al. Patient and provider characteristics associated with optimal post-fracture osteoporosis management. *Am J Med Qual*. 32(6):644-654. 12. Kanis JA, Johnell O, De Laet C, et al. A meta-analysis of previous fracture and subsequent fracture risk. *Bone*. 2004;35:375-382. 13. Weaver J, Sajjan S, Geusens PP, Harris ST, Marvos P. Prevalence and cost of subsequent fractures among U.S. patients with an incident fracture. *J Manag Care Spec Pharm*. 2017;23(4):461-471. 14. van Geel TACM, van Helden S, Geusens PP, Winkens B, Dinant GJ. Clinical subsequent fractures cluster in time after first fractures. *Ann Rheum Dis*. 2009;68:99-102. 15. Song X, Shi N, Badamgarav E, et al. Cost burden of second fracture in the US health system. *Bone*. 2011;48:828-836. 16. Cosman F, De beur SJ, Leboff MS, et al. Clinician's Guide to Prevention and Treatment of Osteoporosis. *Osteoporos Int*. 2014;25(10):2359-2381. 17. Wu C-H, Tu S-T, Chang Y-F, et al. Fracture liaison services improve outcomes of patients with osteoporosis-related fractures: a systematic literature review and meta-analysis. *Bone*. 2018;111:92-100. 18. Nakayama A, Major G, Holliday E, Attia J, Bogduk N. Evidence of effectiveness of a fracture liaison service to reduce the re-fracture rate. *Osteoporos Int*. 2016;27:873-879. 19. NIH Osteoporosis and Related Bone Diseases. Once is enough: a guide to preventing future fractures. <https://www.bones.nih.gov/health-info/bone/osteoporosis/fracture>. Accessed November 20, 2019.