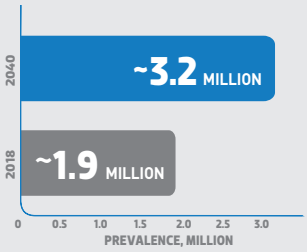
THERE IS AN URGENT NEED TO ADOPT A PROACTIVE APPROACH TO REDUCING FRACTURES

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.**[1] 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.**[2]

Approximately
10 million Americans
are affected by osteoporosis[3]

Someone in the US breaks their hip
every 2 minutes[4]

1 in 2 women and **1 in 4 men**
over the age of 50 will have a fracture related to osteoporosis in their remaining lifetime[5,6]



68% estimated increase
by 2040 in the prevalence of osteoporosis-related fractures in the US among women ≥65 years old[7]

In 2015, **2 million** Medicare patients suffered **2.3 million fractures**[8]

Only **9%** 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**[8]

Only **23%** **of patients** who suffered a hip fracture **received treatment to reduce future fracture risk.**[9,*] Compared to heart attack patients who receive beta blockers to prevent future heart attacks **(96%)**[10,†]

83% **of women with postmenopausal osteoporosis** who experienced a fracture **were not treated** for the underlying disease of osteoporosis within 6 months following a fracture[11]

Prior fractures increase the risk of subsequent fractures[12]

An initial fracture is associated with an **86% increased risk of a subsequent fracture**[12,13]

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[14]

Subsequent fractures cost more than initial fractures[7]

A subsequent fracture is associated with a **2- to 3-fold increase** in medical costs compared to an initial fracture[15]

The incremental direct medical costs during the 180-day period after a subsequent osteoporosis-related fracture was **over $20,700**[8]

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[5,16]

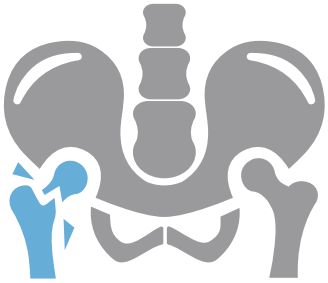
Identify individuals who are at risk of osteoporosis-related fracture

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.**[17,18]

Ensure patients at risk for osteoporosis receive early evaluation and proper diagnosis. Appropriate treatment can help reduce the risk of osteoporosis-related fractures[19]



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

could save Medicare

$310 million–$1.2 billion[8,*]

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/eyJBTkFMWVNJU19UWVBFIjpbIkFUX1EiXSwiWUVBUlMiOlsiWVJfMjAxNCJdLCJDQVRFR09SSVpBVElPTl9UWVBFIjpbIkNUX0NDU0QiXSwiUVVJQ0tUQUJMRV9UWVBFIjpbIlFUVF9ERVQiXSwiREFUQVNFVF9TT1VSQ0UiOlsiRFNfTklTIl19. 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. 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, Lewiecki EM, 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.

AMGEN® ucb