




# FAST FACTS

## Osteoporosis

Diagnosing and preventing porous, weakened bones to prevent fractures

### Current Prevalence by Demographics

- **12 million**: U.S. adults aged 50 and over (11%), according to Bone Mineral Density (BMD) measurements
  - Prevalence of osteoporosis is higher in women (16.5%) than men (5.1%)
- **45 million**  U.S. adults estimated to have low bone mass (osteopenia), a potential precursor to osteoporosis
  - Prevalence of low bone mass also higher in women (52.6%) than in men (35.6%)
- Prevalence varies by race/ethnicity and within race/ethnicity categories

### Fragility Fractures

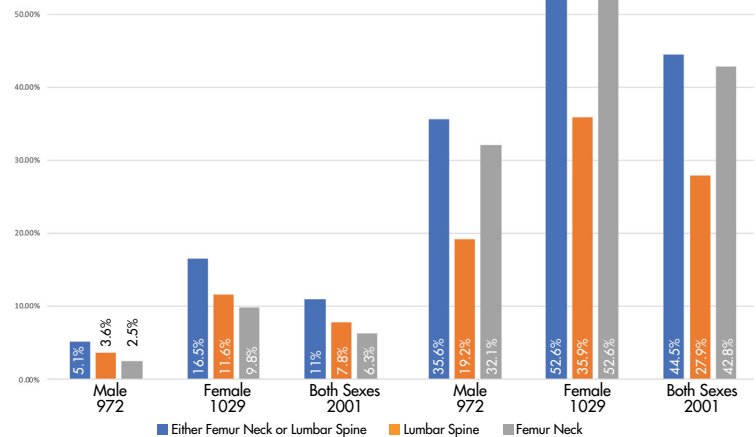
- **540,600**: Fragility fractures among 19.5 million hospital discharges among U.S. adults aged 50 and over (2.8%)
  - Higher among women (3.7% of total hospital discharges among women) than men (1.8%)
  - Increases with age (patients over 80 are 11% of the 50+ population but account for 25% of fractures)
- **465,820**: Fractures identified in Medicare sample (hip, spine, pelvis, femur, wrist, humerus)
  - 75% of Medicare sample fractures occurred in women; hip and spine fractures most common for both men and women

### Economic Impact: Lost Work Time and Wages

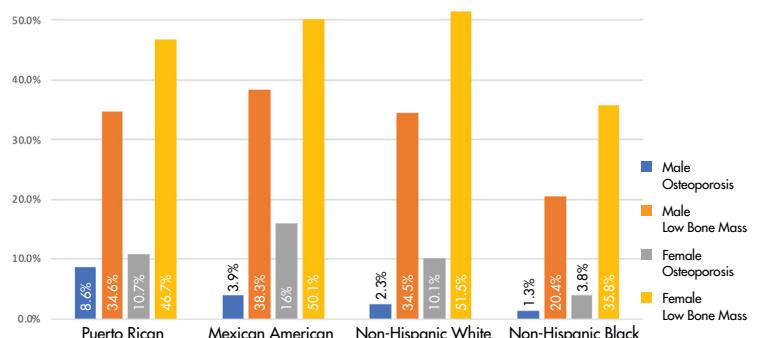
- **\$60,000**: Mean hospital charges associated with fragility fractures in 2014

- **\$12,869**: Total direct per-person healthcare costs in 2012-14 for people with an osteoporosis condition along with other conditions (44% increase since 1998-2000, in 2014 dollars)

### Prevalence of Osteoporosis and Low Bone Mass at the Femur Neck and Lumbar Spine, Adults Aged 50+ Years, United States 2013-14



### Age-adjusted Prevalence of Osteoporosis and Low Bone Mass at Either the Femoral Neck or Lumbar Spine, by Sex and Hispanic Ethnicity, United States 2005-10



Data references available on the reverse side.

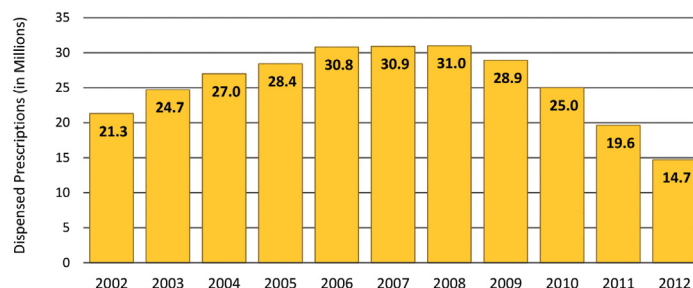


**Fast Facts:** This data is sourced from *The Burden of Musculoskeletal Diseases in the United States (BMUS)*, [boneandjointburden.org](http://boneandjointburden.org).

## Diagnosis, Testing Provider, and Medication Gaps

- DXA testing for BMD declining: 13.2% of female Medicare recipients in 2008 to 11.3% in 2014
- Dispensed prescriptions for osteoporosis medication: 31 million in 2008 to 14.7 million in 2012

## Nationally Estimated Number of Dispensed Prescriptions for Oral Bisphosphonates in US Outpatient Retail Pharmacies, 2002-2012



1 Alendronate, risedronate, and ibandronate.

Source: Wysowski, D.K. and P. Greene, Trends in osteoporosis treatment with oral and intravenous bisphosphonates in the United States, 2002-2012. *Bone*, 2013. 57(2): p. 423-8. Reproduced with permission.

**References:** For additional information, refer to the tables listed below at [boneandjointburden.org](http://boneandjointburden.org).

## Current Prevalence by Demographics

- [1] Looker AC, Sarafrazi Isfajani N, Fan B, Shepherd JA. Trends in Osteoporosis and Low Bone Mass in Older US Adults, 2005-2006 through 2013-2014. *Osteoporos Int*. 2017;28(6):1979-1988. doi: 10.1007/s00198-017-3996-1.
- [2] [https://www.boneandjointburden.org/docs/bmus\\_e4\\_t4a.1.1.pdf](https://www.boneandjointburden.org/docs/bmus_e4_t4a.1.1.pdf) Table 4A.1.1: Prevalence of Osteoporosis and Low Bone Mass at the Femur Neck and Lumbar Spine, Adults Aged 50+ Years, United States 2013-2014.
- [3] [https://www.boneandjointburden.org/docs/bmus\\_e4\\_t4a.1.3.pdf](https://www.boneandjointburden.org/docs/bmus_e4_t4a.1.3.pdf) Table 4A.1.3: Age-adjusted Prevalence of Osteoporosis and Low Bone Mass at Either the Femoral Neck or Lumbar Spine, by Sex and Hispanic Ethnicity, United States 2005-2010.
- [4] Noel SE, Mangano KM, Griffith JL, et. al. Prevalence of Osteoporosis and Low Bone Mass Among Puerto Rican Older Adults. *J Bone Miner Res*. 2018 Mar;33(3):396-403.

## Fragility Fractures

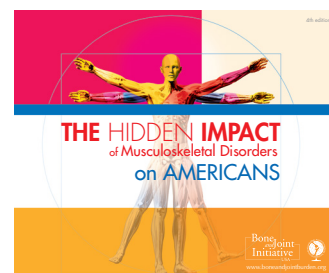
- [5] [https://www.boneandjointburden.org/docs/bmus\\_e4\\_t4a.2.1.pdf](https://www.boneandjointburden.org/docs/bmus_e4_t4a.2.1.pdf) Table 4A.2.1: Health Care Visits with Primary Diagnosis 1 of Osteoporotic Fracture 2 in Hospitals and Emergency Rooms for Persons Age 50 and Over, by Sex, United States 2013-2014.
- [6] [https://www.boneandjointburden.org/docs/bmus\\_e4\\_t4a.2.2.pdf](https://www.boneandjointburden.org/docs/bmus_e4_t4a.2.2.pdf) Table 4A.2.2: Health Care Visits with Primary Diagnosis 1 of Osteoporotic Fracture 2 in Hospitals and Emergency Rooms for Persons Age 50 and Over, by Age, United States 2013-2014
- [7] [https://www.boneandjointburden.org/docs/bmus\\_e4\\_t4a.2.6.pdf](https://www.boneandjointburden.org/docs/bmus_e4_t4a.2.6.pdf) Table 4A.2.6: Incidence of Major Osteoporotic Fractures by Sex in Medicare Database, United States 2015.

## Economic Burden

- [8] [https://www.boneandjointburden.org/docs/bmus\\_e4\\_t4a.3.1.pdf](https://www.boneandjointburden.org/docs/bmus_e4_t4a.3.1.pdf) Table 4A.3.1: Average Length of Hospital Stay (LOS) and Mean Hospital Charges for Primary Osteoporotic Fractures for Persons Age 50 and Over, by Sex and Age, United States 2014.
- [9] [https://www.boneandjointburden.org/docs/bmus\\_e4\\_T8.6.4.pdf](https://www.boneandjointburden.org/docs/bmus_e4_T8.6.4.pdf) Table 8.6.4: Annual All-cause and Incremental Direct Costs for Osteoporosis in Current and 2014 Dollars, United States 1996-2014.

## Diagnosis, Testing Provider, and Medication Gaps

- [10] Lewiecki ME, Wright NC, Curtis JR, et al., Hip Fracture Trends in the United States, 2002 to 2015. *Osteoporos Int*, 2018. 29(3): p. 717-722.
- [11] <https://www.boneandjointburden.org/fourth-edition/iva4/key-challenges-future> Table 4A.5.1: Annual Osteoporosis Diagnosis and Office-based DXA Utilization in Female Medicare Recipients Aged 65 Years and Older from 2001 to 2015, with Annual Number of Office-based and Hospital-based DA Providers.
- [12] Solomon DH, Johnston SS, Boytsov N, et al. Osteoporosis Medication Use After Hip Fracture in US Patients Between 2002 and 2011. *JBMR*. 2014;29(9):1929-1937.



## About the United States Bone and Joint Initiative

The United States Bone and Joint Initiative (USBJI) is part of the worldwide multi-specialty campaign to advance understanding, prevention, and treatment of musculoskeletal disorders through education and research.

To learn more, visit [usbji.org](http://usbji.org).