

The Human and Economic Costs of Osteoporosis in Maryland

Osteoporosis is estimated to have caused over 21,000 bone fractures in Maryland in 2005, at a cost of \$232 million.¹ Fracture cost is projected to grow to \$320 million by 2025,¹ mostly paid by Medicare and Medicaid. Many of these fractures and their debilitating consequences can be prevented by identifying individuals at risk and intervening swiftly.

Osteoporosis is a common, serious medical condition that can cause morbidity, disability, and death. What is Osteoporosis? It is a bone disorder in which compromised bone strength increases risk of fracture.² **What are Consequences of Osteoporotic Fractures?** Fractures can lead to height loss, deformity, pain, gastrointestinal and respiratory problems, depression, loss of self-esteem, disability, and impairment of daily activities.³ *For people with severe osteoporosis, simple actions like hugging a grandchild may be out of reach.*

Maryland will shoulder a large and growing burden of care for osteoporosis, shared by public and private health plans, patients, their families, and taxpayers.

- 750,800 Maryland residents were estimated to have osteoporosis or osteopenia (low bone mass) in 2002. Prevalence is expected to grow 19% to 891,600 by 2010 and 38% to 1.04 million by 2020.⁴
- Fracture incidence in Maryland was estimated to be 21,000 in 2005, with direct medical cost of \$232 million, increasing to over 29,000 fractures in 2025 at a cost of \$320 million.¹ In 2005,¹
 - Women accounted for 80% of estimated direct medical costs of osteoporosis,
 - Fractures outside the spine accounted for 90% of costs, and
 - Hospital care represented over one-third (45%) of total costs and nursing home care over one-third (46%). People hospitalized with osteoporotic fractures averaged 5 days in the hospital in 2000, and 59% were discharged to nursing homes. Medicaid pays about half of long-term care costs, or \$41 million in 2005. Medicare Advantage plans bear risk for hospital costs.

A substantial gap persists between guidelines and medical practice.

- **Recommendations:** In 2002, the US Preventive Services Task Force recommended routine osteoporosis screening for women aged 65 years and older.⁵ In 2004, the US Surgeon General called for prevention, lifestyle changes, and early diagnosis and treatment to prevent osteoporosis and fractures.³
- **Reality:** Three-fourths of US women aged 65 years and older (73%) are at risk for fracture because they have osteoporosis (25%) or osteopenia (48%),⁶ yet most do not know that Medicare helps pay for diagnostic testing,⁷ and few are screened by the Medicare program (9% in 2000).⁶

Although osteoporosis is highly manageable, the majority of people with osteoporosis remain undiagnosed and untreated. *Despite effective therapies to treat osteoporosis and prevent fractures, many seniors and their physicians continue to accept osteoporosis as a natural part of aging.*³

- **Many people are not aware that osteoporosis can cause fractures across the body.** In Maryland, over three-fourths (90%) of osteoporotic fractures occur at the pelvis and other sites such as ankle, arm, or shoulder.¹ *These fractures may not trigger an evaluation for osteoporosis, which is traditionally associated with hip, spine, and wrist fractures.*
- **Diagnosis and treatment are uncommon even in high-risk patients who have already fractured.** Only 18% of US women in Medicare Advantage plans were either tested or treated for osteoporosis in the six months following a fracture in 2004.⁸
- **The serious and debilitating consequences of osteoporosis are often unrecognized.** After a hip fracture, about 20% of people die within a year,⁹ one-fourth become disabled because of the fracture,¹⁰ and one fifth require nursing home care.¹¹ A hip fracture is as likely to impair mobility as a stroke.¹²

Osteoporosis education programs should include a special focus on senior citizens to avert fractures.

- 90% of Maryland's osteoporosis costs occur in people aged 65 years and older.¹

There is an urgent need for diagnosis and treatment in high-risk populations. Disease management should also include diet and lifestyle changes to maintain bone health and environmental changes to help prevent falls.

Active intervention is crucial now to assure earlier diagnosis and appropriate treatment of individuals at risk for bone fracture.

“Our reward for this effort will be to prove the forecasters wrong — instead of seeing ever-increasing numbers of individuals suffering from the agony of bone disease and fractures,

we will see the day when fewer and fewer Americans bear this burden.”³
(Dr. Richard Carmona, U.S. Surgeon General)

¹ Burge RT et al. The cost of osteoporosis in Maryland: Projections for 2000-2025. Procter & Gamble Pharm, November, 2002.

² Osteoporosis Prevention, Diagnosis, and Therapy. NIH Consens Statement 2000 March 27-29; 17(1): 1-36.

³ US Department of Health and Human Services. Bone health and osteoporosis: A report of the Surgeon General. Rockville, MD: US Department of Health and Human Services, Office of the Surgeon General, 2004.

⁴ National Osteoporosis Foundation. America's bone health: The state of osteoporosis and low bone mass in our nation. Feb. 2002.

⁵ US Preventive Services Task Force. Screening for osteoporosis in postmenopausal women: Recommendations and rationale. Ann Intern Med 2002;137:526-528.

⁶ King et al. Fracture reduction affects Medicare economics (FRAME): Impact of increased osteoporosis diagnosis and treatment. Ost Int 2005;16:1545-1557.

⁷ Adler GS and Shatto A. Screening for osteoporosis and colon cancer under Medicare. Health Care Financing Review 2002;23:189-200.

⁸ HEDIS® 2005. Documentation for Reporting Year 2004. Data from 121 MA plans.

⁹ Leibson CL et al. Mortality, disability, and nursing home use for persons with and without hip fracture: A population-based study. J Am Geriatr Soc. 2002;50(10):1644-50.

¹⁰ Magaziner J et al. Changes in functional status attributable to hip fracture: A comparison of hip fracture patients to community-dwelling aged. Am J Epidemiol 2003;157(11):1023-31.

¹¹ Chrischilles EA et al. A model of lifetime osteoporosis impact. Arch Intern Med 1991;151(10):2026-32.

¹² Lieberman D et al. Characterization of elderly patients in rehabilitation: Stroke versus hip fracture. Disabil Rehabil 1999;21(12):542-7.