The Burden of Osteoporosis on Patients, Caregivers and Society

Health Disparities Exacerbate the Problem for Some Populations
Topics

- Background on Bone Disease and Osteoporosis
- Health Disparities
  - Disparities in Access to Diagnosis
  - Disparities in Access to Treatment
- Call to Action by the U.S. Surgeon General
- DXA Reimbursement – Access in Urban and Rural Areas
- Conclusion
Osteoporosis

- Bones constantly change throughout life in size, shape and geometry.
- Osteoporosis, the most common bone disorder, typically does not manifest until later in life, and is more common in females.
- Damage from osteoporosis affects the entire skeleton, predisposing an individual to an increased risk of fracture.

Normal

With Osteoporosis

“Osteoporosis does not need to be a natural consequence of aging”*
Amgen Proposes to Begin an Educational Initiative Focused on Post Menopausal Osteoporosis

- Goal is to raise action regarding
  - Screening of at-risk populations
  - Monitoring compliance to treatment
  - Assessing treatment effectiveness
  - Taking action if treatment goals are not met
The Disease, If Left Untreated, Bears a Cost

- Fractures can lead to hospitalization, months of rehabilitation and even death.

- 1 in every 2 women over 50 will suffer a fracture in her lifetime.¹

- 1 in 5 of senior citizens who suffer a hip fracture die within 1 year.¹

- 1 in 5 of those who were ambulatory before their hip fracture requires long-term care afterward.¹

- Health care costs for osteoporosis are $20B annually.²

² Burge R et al. J Bone Miner Res. 2007; 22:465-475; According the National Osteoporosis Foundation, osteoporosis-related fractures were responsible for an estimated $19 billion in costs in 2005.
Health Disparities in Osteoporosis

1) Disparities in Access to Diagnosis
2) Disparities in Access to Treatment
Health Disparities in Prevalence

- Percent of women 50 and older estimated to have osteoporosis:
  - 20% of non-Hispanic Caucasian and Asian women
  - 5% of non-Hispanic black women
  - 10% of Hispanic women

- Whereas the incidence of hip fracture declined in white women, it doubled in Hispanic women from 1983 to 2005.2

- Mortality after a hip fracture is higher among African-American women than white women.3

- African-American women who suffer a hip fracture have longer hospitalization stays and are more likely to be nonambulatory compared to white women.3

2. Zingmond DS et al. JSBMR;22, 2007
3. Cauley et al. JSBMR;22, 2007
Medicare Includes Osteoporosis Evaluation As Part of Key Preventative Services

Welcome to Medicare

- In 2005, Osteoporosis evaluation with DXA is added as part of key preventative services-

“Medicare provides coverage of bone mass measurements every 2 years (i.e. at least 23 months have passed following the month in which the last Medicare-covered bone density study was performed) when performed on a qualified individual at clinical risk for osteoporosis.”

Caucasian Women are 6 Times More Likely to Have a DXA Screen Than African-American Women From Same Clinic¹

Differences in screening rates exist in women >65 years of age, where routine screening is recommended regardless of risk factors.¹

Race distribution by 5 year increments for DXA study populations (percent)

1 Hamrick et al. Fam Med 38, 2006
African-American Women Are Less Likely To Receive BMD Testing Before and After A Hip Fracture

Neuner, JM et al. JGIM;22. 2007
Fewer African-American Women are Treated for Osteoporosis Compared to Caucasian Women

84% of Caucasian women are started on treatment after diagnosis of osteoporosis compared to only 61% of African-American women.

African-American Women Have a Lower Probability of Survival Following a Hip Fracture

Observed and Expected Race and Sex-Specific Survival following Hip Fracture

- **Expected Survival Without Fracture (Includes Black and White, Both Sexes)**
- **Observed Survival With Fracture**

<table>
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Source: Based on Jacobson.1992

http://www.surgeongeneral.gov/library/bonehealth/chapter_5.html
Surgeon General’s Call to Action
Surgeon General’s Report Suggests 61.4 Million May Be at Risk for Osteoporosis and Osteopenia By 2020

The Surgeon General estimates that “without concerted action to address this issue, it is estimated that in 2020 one in two Americans over age of 50 will have, or be at high risk of developing, osteoporosis.”

By 2025, Experts Predict Costs Will Rise to Approximately $25.3 Billion

Fractures Cost U.S. Healthcare System $20 Billion Annually

According to the National Osteoporosis Foundation, osteoporosis-related fractures were responsible for an estimated $19 billion in costs in 2005.
DXA Reimbursement (Access in Urban and Rural Areas)
Reduction in DXA Providers Potentially Limits Patient Access To a Greater Extent in Rural Areas

Distance to the Nearest DXA Site in 2006, and Change in Distance After Removing Physician Offices

Non-facility sites are those outside of a hospital (e.g., a physician office).
Funding Should be Restored to Appropriate Levels for DXA Scans To Maintain Access

1. The Lewin Group "Assessing the Costs of Performing DXA Services in the Office-Based Setting; Dobson, DaVanzo, Oct. 31, 2007. Note: for this illustration, the $134 average cost for 2007 was not updated to reflect inflation in years 2008 – 2010.
Call to Action

- An estimated 10 million Americans have osteoporosis. 34 million Americans have low bone mass, placing them at an increased risk for osteoporosis.¹
  - Without a concerted effort to address osteoporosis, 1 in 2 Americans over age of 50 will have, or be at high risk of developing, osteoporosis in 2020.¹

- Health care costs for osteoporosis-related fractures are responsible for an estimated $20B annually.²

- In addition to proper diet and exercise, health professionals must proactively assess, diagnose and treat at-risk patients.

- Congress must restore funding to appropriate levels for DXA scans to ensure patients have access to appropriate care.

- This is especially important for minority populations who suffer from significant disparities in the recommendation for osteoporosis screening, prevention and treatment.