Projected burden of osteoporotic hip fractures worldwide

Estimated number of hip fractures (1000s)

- N. America
- Europe
- Latin America
- Asia

Total n° of hip fractures: 1990 = 1.66 million; 2050 = 6.26 million

Adapted from Cooper C., Melton U, Osteoporosis Int 2:285-289, 1992
Osteoporotic Fractures in Women: Comparison With Other Diseases

- **Annual incidence all ages**
  - 1,500,000

- **Annual estimate women 29+**
  - 228,000

- **Annual estimate women 30+**
  - 184,300

- **1996 new cases, all ages**
  - 750,000

**Fractures**
- 250,000 hip
- 250,000 forearm
- 250,000 other sites
- 750,000 vertebral

**Heart Attack**
- 513,000

**Stroke**
- 228,000

**Breast Cancer**
- 184,300

Risk of Death For Hip Fracture in Women Similar to Other Diseases

- A 50 year old woman’s lifetime risk of dying from a hip fracture is equal to her risk of dying from breast cancer and greater than her risk of dying from endometrial cancer
  - Hip Fracture: 2.8%
  - Breast Cancer: 2.8%
  - Endometrial Cancer: 0.7%

Osteoporosis: The Impact of Disease
Consequences of hip fractures

Percentage of surviving patients who lose the ability to perform independently some daily activities

Consequences of Vertebral Fractures

- Kyphosis
  - Loss of height
  - Tummy bulges due to loss of space under the ribs

- Acute and Chronic Pain
- Breathing difficulties
- Indigestion & gastro-oesophageal reflux
- Depression
- Impairment of Quality of life
Vertebral fractures indicate a very high risk of further fractures

- Women with vertebral fractures have an increased risk of later vertebral fractures, hip fractures and other types of fractures.
- One woman in five will suffer from another vertebral fracture within a year
- 30% of vertebral fractures are not diagnosed
Among women who had already fractured:

- More than 80% feared another fracture
- 73% feared losing their independence or ability to perform daily activities
- 64% worried that another fracture would result in long-term institutionalization
- 91% wished they had known more about prevention
Osteoporosis Results in More Cost Than Many Other Diseases

- Annual cost of acute hospitalization in Switzerland in 1992: 600 million Swiss francs (US$350 million)*
  - Number of bed days (men and women)
    - 701,000 for osteoporosis
    - 891,000 for COPD
    - 533,000 for stroke
    - 328,000 for myocardial infarction
    - 201,000 for breast cancer

Diagnosis of Osteoporosis

Bone mineral density (BMD) measurement is critical to the detection and administration of appropriate therapy when indicated.

Dual energy x-ray absorptiometry (DXA): the gold standard for BMD measurement at the hip and lumbar spine.
Effective and Safe Therapies Exist to Treat Osteoporosis

- **Bisphosphonates (alendronate, risedronate)**
  - Clinically proven to reduce hip, spine and wrist fracture by approximately 50%
- **Selective estrogen receptor modulators (raloxifene)**
  - Clinically proven to reduce the risk of spine fracture by 30-50%
Concern Among Postmenopausal Women

• Overall, 93% of women acknowledge the seriousness of osteoporosis

• REALITY
  – 8 out of 10 do not believe they are personally at risk

IOF survey(2000): How fragile is her future?
Doctors Are Constrained By Lack of Resources

- **75%** of physicians consider the access to screening tools inadequate
- **83%** of physicians say level of health care coverage is inadequate
- **20%** say lack of time limit their screening capabilities

IOF survey(2000): How fragile is her future?
Underdiagnosis = Undertreatment

• If women are not being diagnosed then they cannot be receiving treatment either
  – Even highest risk patients (i.e., those with an existing fracture) are not being treated

No pharmacological treatment of patients after hip fracture in 15 of 16 European IOF countries

Awareness and Treatment of Osteoporosis in the world is low despite: ....

- Known disability, excess mortality and high cost associated with fractures
- Effective test (DXA) for early diagnosis of osteoporosis
- Availability of efficacious and safe treatments
IOF’s Mission

- Support member national societies
- Increase awareness and understanding of OP
- Motivate people to take action so OP is routinely prevented, diagnosed and treated
First launch of the 206 bone fund, presided by Mrs N. HARRIRI