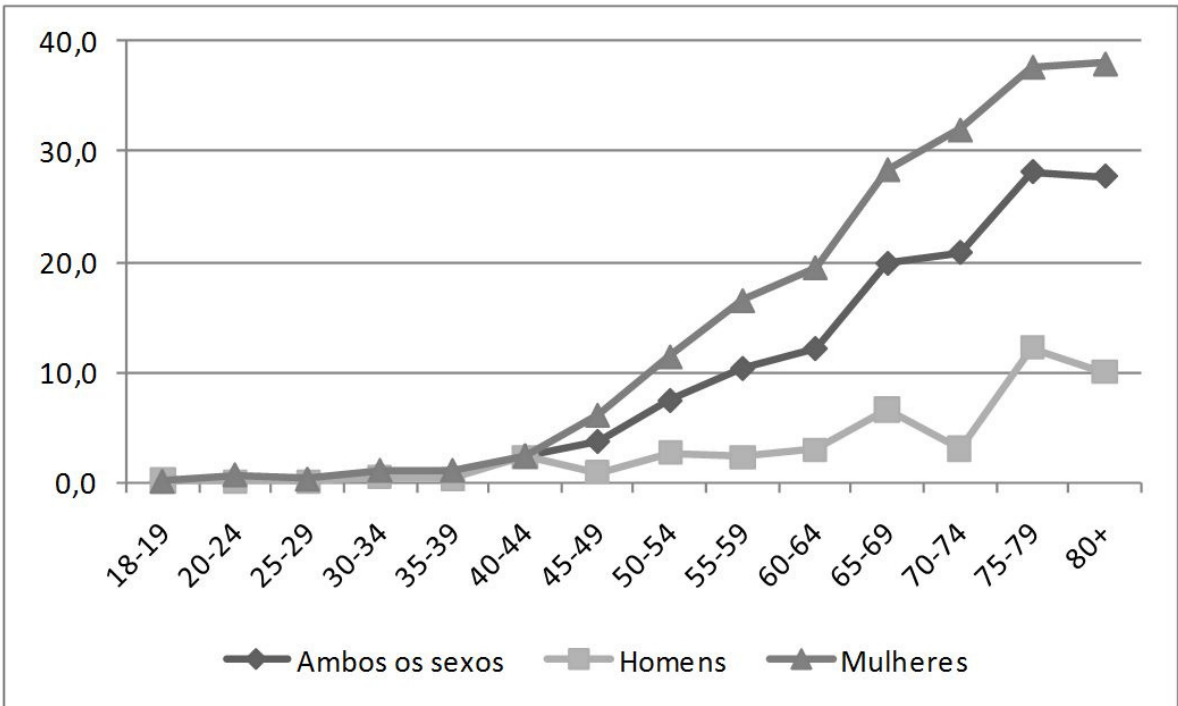


# Financial Impact of a Femur Fracture Secondary to Osteoporosis in Women over 60 Years Old Under Private Health Insurance in Brazil

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**INTRODUCTION:**  
Osteoporosis is a generalised skeletal disorder characterised by low bone mass and micro-architectural deterioration of bone which leads to fragility and risk of fracture. Although osteoporosis commonly affects the hip and lumbar vertebrae, it may also be found at other sites such as the radius, tibia and ribs. One consequence of reduced bone mineral density is that osteoporosis is strongly associated with low trauma fracture. Indeed, up to 51% of fractures in women and 24% of those in men are attributable to osteoporosis. In addition to the economic consequences, hip and femur fracture in particular are associated with profound disability and psychosocial sequelae.



PREVALÊNCIA DE OSTEOPOROSE POR SEXO E GRUPO ETÁRIO.  
FONTE: VIGITEL, 2008/SVS/MS [5].

**OBJECTIVES:**  
To evaluate the financial impact of a femur fracture secondary to osteoporosis in women over 60 years old under private health insurance in Brazil.

**METHODS:**  
Data were extracted from the Unimed Campinas Health Insurance Database. Inclusion criteria were: women over 60 years who had a femur fracture due to osteoporosis, the period evaluated was from January 2013 to December 2021. The values were calculated considering the costs of hospitalization, medical fees and exams.

**RESULTS:**  
A total of 1343 fractures were identified during the period, the mean fractures per year was 168 (approximately the incidence of 0.20% of the female population over 60 years of the health insurance population). The total cost with was US\$ 3,227,743.38, with an average of US\$ 2,400.00 per patient. The predominance of fractures was in the eighth decade with 690 (51.72%) the cases.

Costs and Fractures			
Fractures per year	168 patients	Total fractures since 2013	1343 patients
Cost per customer	US\$ 2,400.00	Total amount (Jan 2013-Dec 2021)	US\$ 3,227,743.38

**CONCLUSIONS:**  
Programs such as prevention of falls, reduction of risk factors and adequate treatment according to the risk of fracture must be carried out with the intention of improving the journey of the patient with osteoporosis and preventing femur fractures.

**REFERENCES:**  
1.Lippuner K, Golder M, Greiner R. Epidemiology and direct medical costs of osteoporotic fractures in men and women in Switzerland. Osteoporosis International [Internet]. 2004 Sep 16 [cited 2021 Feb 12];16(S02):S8–17. Available from: <https://core.ac.uk/download/pdf/159150442.pdf>  
2.Metcalf D. The pathophysiology of osteoporotic hip fracture. McGill journal of medicine : MJM : an international forum for the advancement of medical sciences by students [Internet]. 2008;11(1):51–7. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2322920/>  
3.UpToDate [Internet]. Uptodate.com. 2019. Available from: <https://www.uptodate.com/contents/osteoporotic-fracture-risk-assessment>  
4.Once Is Enough: A Guide to Preventing Future Fractures | NIH Osteoporosis and Related Bone Diseases National Resource Center [Internet]. www.bones.nih.gov. Available from: <https://www.bones.nih.gov/health-info/bone/osteoporosis/fracture>  
5.VIGITEL BRASIL 2008 - VIGILÂNCIA DE FATORES DE RISCO E PROTEÇÃO PARA DOENÇAS CRÔNICAS POR INQUÉRITO TELEFÔNICO — Português (Brasil) [Internet]. www.gov.br. [cited 2022 Mar 30]. Available from: [https://www.gov.br/saude/pt-br/centrais-de-conteudo/publicacoes/publicacoes-svs/vigitel/vigitel\\_brasil\\_2008.pdf/view](https://www.gov.br/saude/pt-br/centrais-de-conteudo/publicacoes/publicacoes-svs/vigitel/vigitel_brasil_2008.pdf/view)