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## EPIDEMIOLOGY OF OSTEOPOROTIC FRACTURE IN MOLDOVA AND DEVELOPMENT OF A COUNTRY-SPECIFIC FRAX MODEL

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**Objective:** This study describes the epidemiology of osteoporotic fractures in Republic of Moldova that was used to develop the country-specific fracture prediction  $FRAX^{\circledast}$  tool.

**Methods:** We carried out a retrospective population-based survey in 2 regions of Republic of Moldova (Anenii Noi district and Orhei district) representing approximately 6% of the country's population. We identified hip, forearm and humerus fractures in 2011 and 2012 from hospital registers and primary care sources. Age- and sex-specific incidence of hip fracture and national mortality rates were incorporated into a FRAX model for Moldova. Fracture probabilities were compared with those from neighboring countries having FRAX models.

**Results:** The incidence of hip fracture applied nationally suggested that the estimated number of hip fractures nationwide in persons over the age of 50 y for 2015 was 3911 and is predicted to increase by 60% to 6492 in 2050. Hip fracture incidence was a good predictor of forearm and humeral fractures. FRAX-based probabilities were higher in Moldova than neighboring countries (Ukraine and Romania). The remaining lifetime probability of a hip fracture from the age of 50 y was 5.8% in women and 4.2% in men. These probabilities were similar to those in Romania (7.0 and 3.8%, respectively) but markedly lower than those in Sweden (25.6 and 11.0%, respectively).

**Conclusion:** The FRAX model should enhance accuracy of determining fracture probability among the Moldavian population and help guide decisions about treatment.