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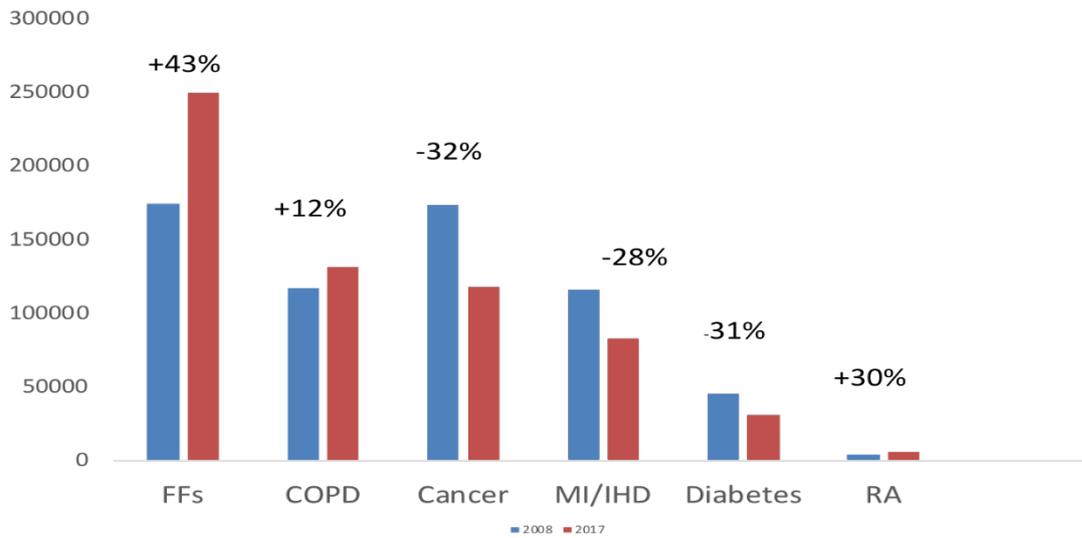
**Background:** Musculoskeletal Diseases (MSK) represent one of the largest illness burdens worldwide, greatest in Europe. U.S. data suggest osteoporosis represents the most common non-communicable illness in postmenopausal women. A recent report suggests Ireland has the 6th highest hip fracture incidence worldwide, though epidemiology studies addressing the burden of illness for The Republic of Ireland are few, and limited mainly to reports from public hospital admissions.

**Methods:** We reviewed publications addressing the burden of illness from The Republic of Ireland, and assessed the illness burden of Osteoporosis from cohorts of patients seen in 2 Rheumatology centres in the West of Ireland. Data was collected from all subjects following IRB approval and informed consent. We also collected HIPE data on MSK admissions. We compared our cohort to National Survey data, as well as published US and EU data, and other common non-communicable disorders.

**Results:** Osteoporosis affects around 200,000 Irish adults and results in 30,000 to 40,000 fragility fractures each year. The Majority of fragility fractures do not require hospital admission. Public hospital bed days for fragility fractures have increased by almost 50% over the past decade, unlike other non-communicable disorders where bed days appear to be falling (see table). <50% of fracture patients require admission suggesting the HIPE data significantly under-represent the true burden. Osteoporosis is associated with significant pain, disability, depression and limited activity. Average medication costs were €1,786, range: 0 - €9,831. Mortality following hip and spine fracture in Ireland remains high. Vertebral fractures and under-reported and under-represented in Irish studies to date. Many patients are unaware of their diagnosis.

**Table:** Change in Bed Days over the Past Decade: Fragility Fractures, Solid Cancer, Cardiovascular Disease, Diabetes Mellitus and Rheumatoid Arthritis

## Change in Bed Days: 2008 V 2017



**Conclusion:** Osteoporosis and fragility fractures represent a significant illness burden in terms of morbidity, disability, healthcare utilization and cost. Strategies to prevent fractures and address this rapidly increasing illness burden are urgently needed.