

Number of hip fractures projected to nearly double worldwide by 2050

The total number of [hip fractures](#) globally is projected to nearly double from 2018 to 2050 as the aging population is expected to increase, according to a speaker at the American Society for Bone and Mineral Research Annual Meeting.

“Hip fracture burden and associated burden will be greater in the future, given the growing aging populations,” **Ching-Lung Cheung, PhD**, associate professor in the department of pharmacology and pharmacy at the University of Hong Kong, told Healio. “Larger and more collaborative efforts among health care providers, policymakers and patients are needed to prevent hip fractures and improve the treatment gap and postfracture care, especially in men and the oldest.”



“Health care professionals and the general public should understand that osteoporosis is not a ‘woman’s disease.’”

Ching-Lung Cheung, PhD



Cheung is an associate professor in the department of pharmacology and pharmacy at the University of Hong Kong.

Cheung and colleagues collected data from 20 health care databases in 19 countries, including electronic medical records of primary care practices, billing claims and national data. Most databases covered 90% to 100% of their respective country’s population. Incidence of hip fracture, the use of an osteoporosis medication within 1 year of a fracture and all-cause mortality within 1 year after fracture were collected for adults aged 50 years and older from 2005 to 2018. Predicted population size data from the World Bank was used to project hip fracture incidence rates for 2030 to 2050.

Hip fracture incidence rates ranged from 95.1 per 100,000 in Brazil to 315.9 per 100,000 in Denmark. Rates increased in all countries with older age, and incidence rates for adults aged 85 years and older were more than twice as high as those for adults aged 80 to 84 years.

Most countries had declines in age- and sex-standardized hip fractures incidence rates from 2015 to 2018. The Netherlands, South Korea, France, Germany and Brazil had increases, whereas rates were stable Australia, Japan, Thailand and the U.S. Optum database.

Treatment rates within 1 year of a hip fracture ranged from 11.5% to 37% in most countries, though the rate was highest in the U.K. at 50.3%. Men had a lower treatment rate compared with women across all countries.

All-cause mortality within 1 year of a hip fracture declined in seven countries and remained stable in the remaining nations. Men had a higher mortality rate compared with women.

“There is a sex disparity with a more significant burden of hip fractures being observed in men than in women,” Cheung said. “Men have a much lower treatment rate and a greater-fold increase in the projected hip fracture number by 2050. As [osteoporosis](#) is commonly perceived as a ‘woman’s disease,’ osteoporosis in men is widely neglected. However, such sex disparity is greater than I expected.”

Across all sites excluding Japan and the U.S. Medicare database, there were 983,056 hip fractures in 2018. That number is expected to increase by 1.91-fold to 1,873,078 hip fractures in 2050. Hip fractures are projected to increase by 1.67-fold among women and 2.44-fold among men.

Cheung said the projected increase in hip fractures reveals a need for providers to make a greater effort to prevent fractures.

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“We should encourage the optimal use of anti-osteoporosis agents,” Cheung said. “Moreover, we should also consider a more proactive approach, like population screening, to identify the high-risk patients earlier for a timely intervention. Enhanced systems of care, such as fall prevention programs and fracture liaison services, are also crucial in reducing the fracture. Last but not least, education is always important. Health care professionals and the general public should understand that osteoporosis is not a ‘woman’s disease.’ Since hip fracture leads to a higher mortality rate in men than in women, prevention of hip fractures and timely treatment of osteoporosis should be enhanced in both women and men.”

PERSPECTIVE

Jad G. Sfeir, MD, MS

With a rapidly aging population, the prevalence of age-related diseases, including osteoporosis, is expected to increase. Hip fractures are, to a large extent, preventable consequences of osteoporosis.

Using national reporting data between 2005 and 2018, this study looked at the incidence of hip fractures, mortality and treatment in men and women aged 50 years or older in 19 countries. The researchers projected an almost twofold increase in the global hip fracture counts by 2050.

Alarming, many countries saw a stability or decline in the proportion of patients receiving treatment within 1 year following a hip fracture. The highest rate reported at 50.3% in the U.K. indicates that approximately half of the patients who sustain a hip fracture do not receive treatment aimed at reducing the risk for a subsequent fracture. The picture is much grimmer in other countries, with treatment rates ranging between 11.5% and 37%.

These secular trends provide important information that can be used by public health initiatives to develop programs and allocate resources for hip fracture prevention. One such global coalition is the ASBMR Secondary Fracture Prevention Initiative that has developed clinical recommendations for health care professionals aimed at reducing the treatment gap in osteoporosis.

Although very informative, the presented data do not provide ethnic differences in hip fracture incidence, mortality or treatment. Due to significant health care disparities, these metrics may be underreported for many ethnic groups. Furthermore, the predictive model is based on pre-pandemic data; it is important to revisit these models as we continue to learn more about the impact of the COVID-19 pandemic on worldwide life expectancy, particularly in the older population.

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hip fracture

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Vegetarian women at increased risk for hip fracture

In a large cohort of women, those who were vegetarians demonstrated an elevated risk for hip fracture compared with their meat-eating counterparts, according to recent research.

For the analysis, which featured data from the U.K. Women’s Cohort Study, **Janet E. Cade, PhD**, professor of nutritional epidemiology and public health at University of Leeds, United Kingdom, and colleagues sought to compare the hip fracture risk among occasional meat-eaters, pescatarians and vegetarians with regular meat-eaters. They also aimed to

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