

GLOBAL ANALYSIS OF THE EPIDEMIOLOGICAL BURDEN OF OSTEOARTHRITIS BASED ON DATA FROM THE GLOBAL BURDEN OF DISEASE STUDY

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OBJECTIVES

Osteoarthritis (OA) is the 7th most common cause of disability among individuals aged 70 years and older. The aim of the study was to analyse the global epidemiological disease burden of osteoarthritis, based on data from the Global Burden of Disease Study, focusing on the year 2021.

METHODS

The epidemiological disease burden of osteoarthritis was analysed using the dataset from the Global Burden of Disease Study (GBD, 2021) provided by the Institute for Health Metrics and Evaluation (IHME) database for the year 2021. For the selected condition, we examined prevalence, incidence, disability-adjusted life years (DALYs), and years lived with disability (YLDs) at a global level, disaggregated by sex, age group, and types of osteoarthritis.

RESULTS

In 2021, the prevalence of osteoarthritis was 7.96%, representing 7,691.83 cases per 100,000 population. The age-standardized prevalence was 7.24% (6,967.29 per 100,000 population) (*Figure 1*). The incidence was 590.93 per 100,000 population (*Figure 2*). Disability-adjusted life years (DALYs) due to osteoarthritis amounted to 269.97 per 100,000 population, representing 0.73% of total global DALYs. Years lived with disability (YLDs) corresponded to 21,304,565.82 years, accounting for 2.33% of total global YLDs (*Figure 3*). The prevalence of osteoarthritis was higher among women and increased with age (*Figure 4*). The joints most commonly affected were the knee (4.91%) and the hand (2.55%), with a lower prevalence observed in hip osteoarthritis (0.47%).

CONCLUSIONS

Osteoarthritis imposes a significant global burden, particularly among older adults, with a prevalence of 7.96% in 2021 and notable impacts on disability and quality of life. The findings highlight the need for targeted strategies to address the high prevalence in women and the increasing burden with age, especially in knee and hand osteoarthritis.

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Changes in the global age-standardised prevalence of osteoarthritis between 1990-2021

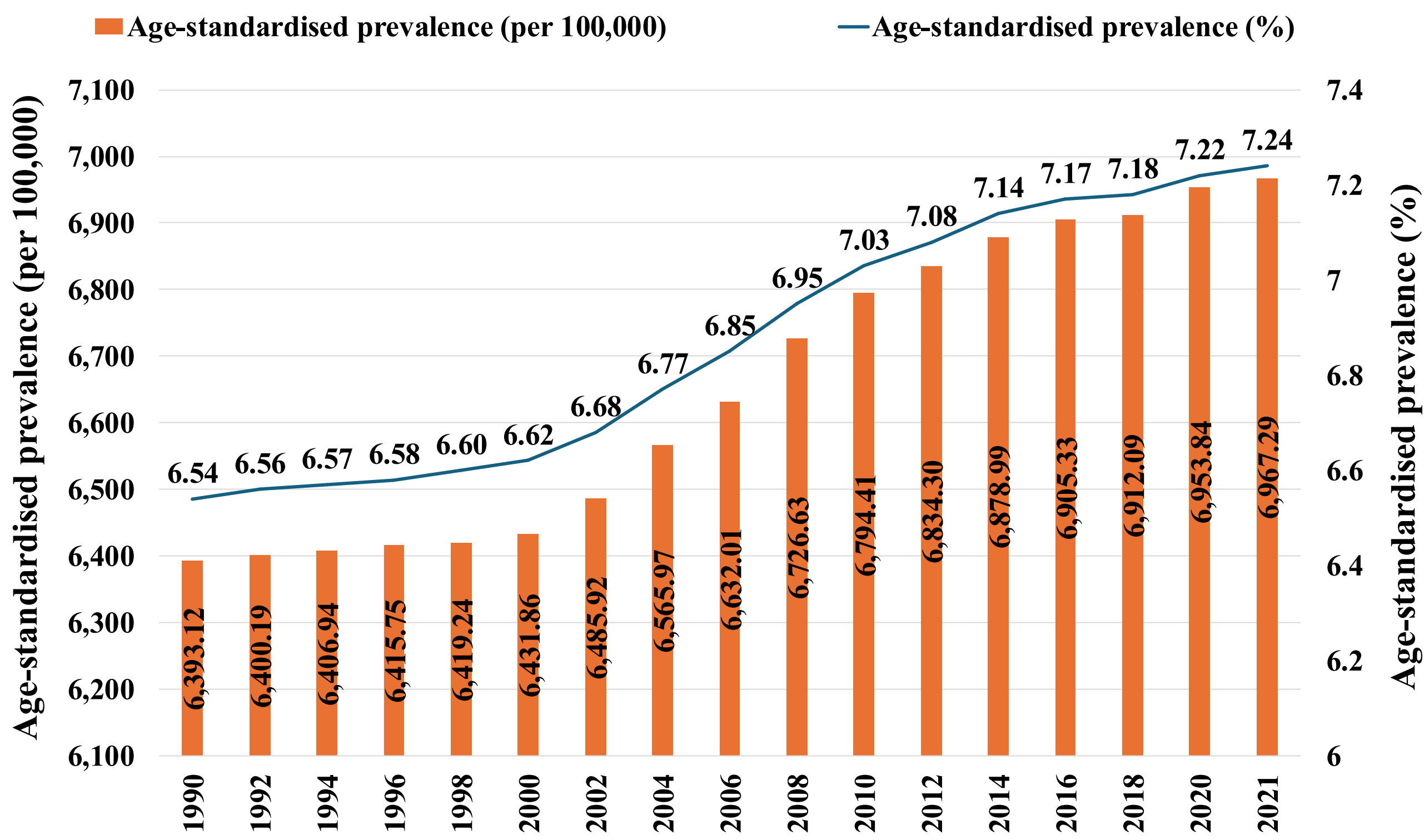


Figure 1
The global age-standardised prevalence of osteoarthritis between 1990-2021

Changes in the global incidence of osteoarthritis between 1990-2021

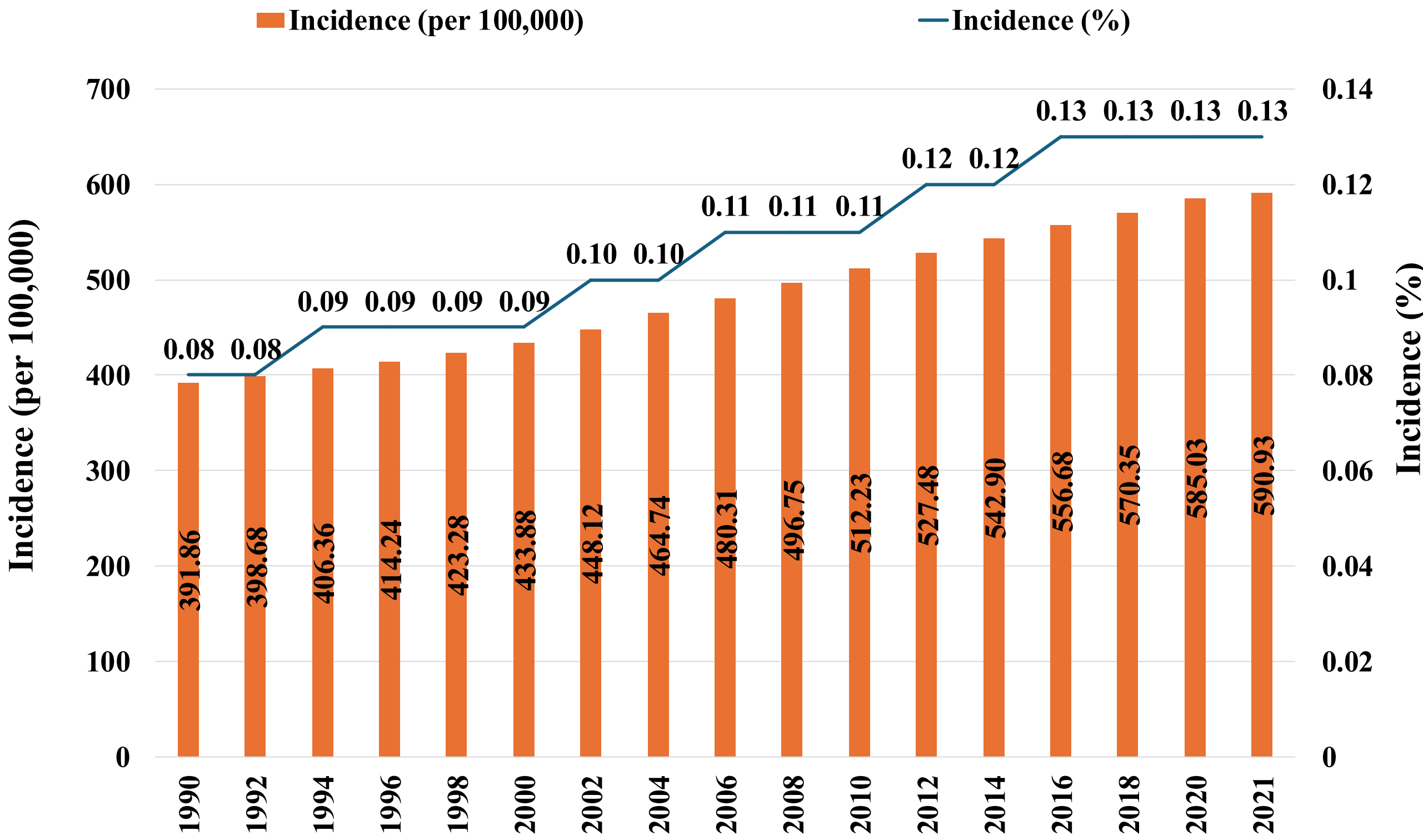


Figure 2
The global incidence of osteoarthritis between 1990-2021

Changes in the global DALY and YLD of osteoarthritis between 1990-2021

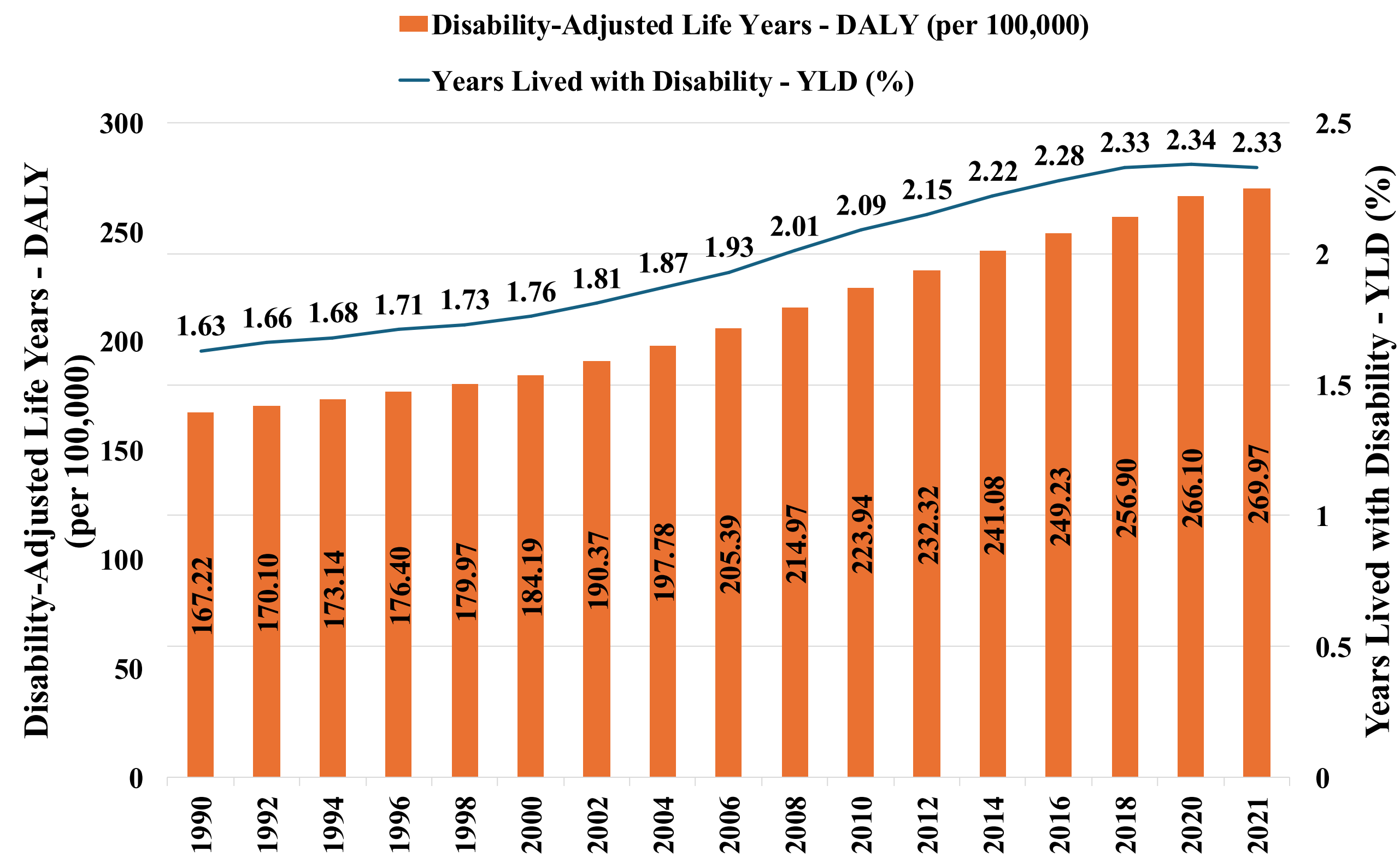


Figure 3
The global DALY and YLD of osteoarthritis between 1990-2021

Changes in the global prevalence of osteoarthritis according to sex and age group

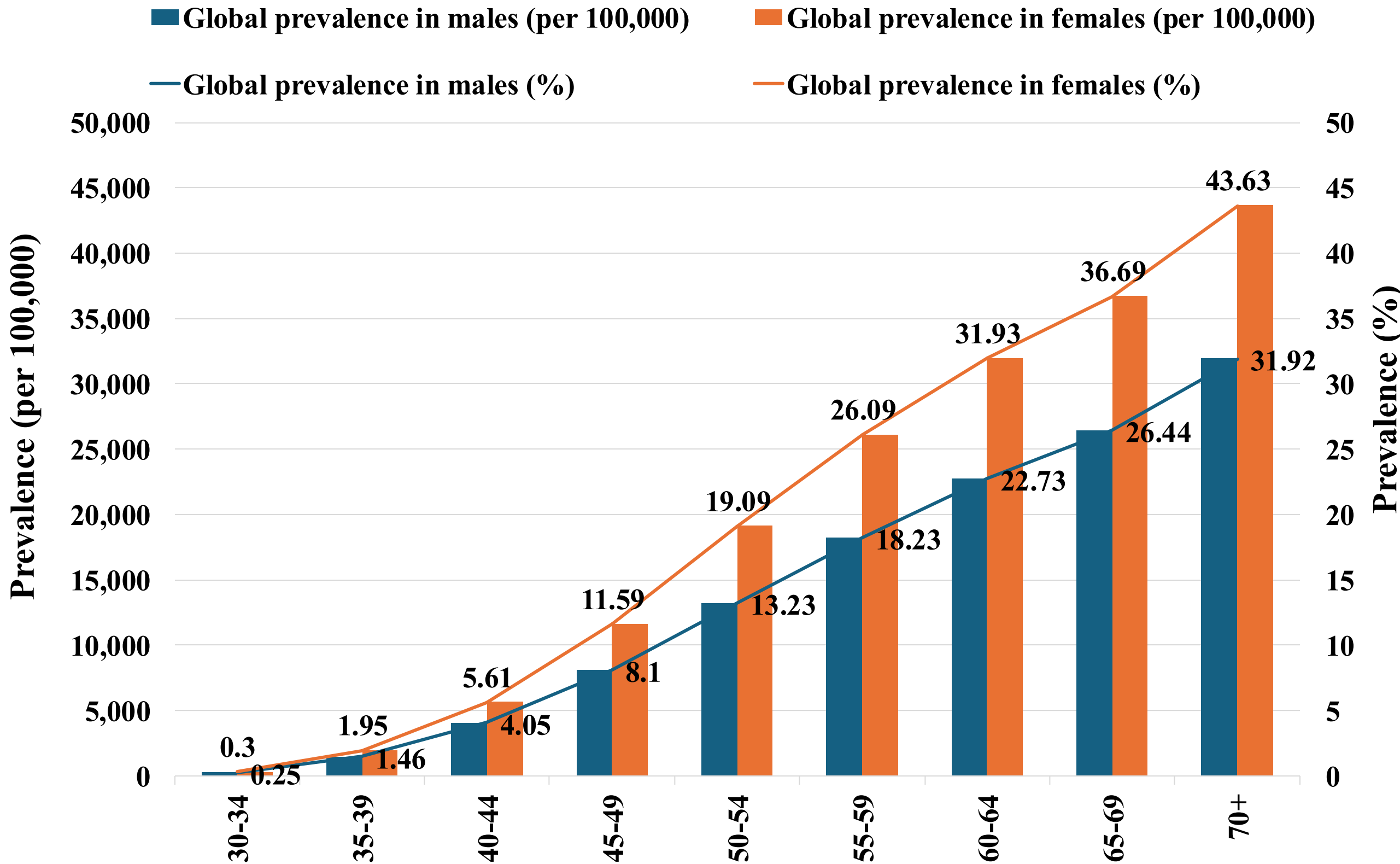


Figure 4
Global prevalence of osteoarthritis by sex and age group in 2021

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