

Osteoarthritis in 2020 and beyond: a *Lancet* Commission



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Osteoarthritis affects 7% of the global population, more than 500 million people worldwide, with women disproportionately affected by the condition.¹ The number of people affected globally rose by 48% from 1990 to 2019, and in 2019 osteoarthritis was the 15th highest cause of years lived with disability (YLDs) worldwide and was responsible for 2% of the total global YLDs.^{1,2} Although YLDs for osteoarthritis are higher in high Socio-demographic Index (SDI) countries than in middle SDI regions (about 525 vs 220 YLDs per 100 000 population), since 1990 the rate of change in YLDs has been far greater in middle SDI countries than in high SDI countries (89% vs 48%).^{1,2} Osteoarthritis is a leading cause of disability in older adults and the trends of an ageing population and increasing obesity are likely to compound this. These data are concerning but probably underestimate the true size of the problem. Furthermore, the development of treatments for osteoarthritis has not made comparable progress with that for many other musculoskeletal and chronic non-communicable diseases. Additionally, social determinants, the built environment, and access to health care all have impacts on the disparate disease burden of osteoarthritis, particularly in lower-income and middle-income countries.³

Despite its considerable personal, economic, and societal toll, osteoarthritis is generally neglected. The condition does not feature in global strategic plans for non-communicable diseases, yet osteoarthritis commonly coexists with heart disease, diabetes, and mental health problems and can worsen the morbidity and mortality associated with these conditions.⁴ Patients with osteoarthritis also report that their concerns are downplayed by health practitioners.⁵ Therapeutic nihilism may affect patients and practitioners, with misperceptions that osteoarthritis is an inevitable part of ageing and that there are no effective treatments. Current health-care approaches can swing from neglect of core treatments, such as exercise, weight loss, and education,⁶ to use of expensive, unproven therapies for late-stage disease; patients are often ill-informed about treatment choices.⁷ Myriad therapeutic options⁸ are typically delivered in a fragmented way, paying little heed to the heterogeneity of osteoarthritis and its comorbidities, and too often lead to unintended consequences such as opioid use disorder.⁹

There have been tremendous advances, including in our understanding of the impact and burden of osteoarthritis globally, the pathogenesis of the condition, and the identification of those at risk of disease progression. Opportunities for progress now lie in the application of public health interventions to prevent osteoarthritis, targeting overuse of inappropriate and low-value care, equitable access to existing cost-effective interventions, and identification of low-cost, safe pain relief.¹⁰ New thinking will be crucial to improve osteoarthritis prevention, management, and policy.

The *Lancet* Commission on osteoarthritis will advance this agenda. Our international team of Commissioners represents diverse disciplines, interests, and backgrounds and has expertise in primary care, rheumatology, physiotherapy, orthopaedics, pain medicine, implementation science, discovery science, epidemiology, health economics, and the lived experience of osteoarthritis. At our initial meetings in September and October, 2020, we established a framework and identified priorities and gaps to examine within a 2-year timeframe for the Commission's work.

Driven by the huge impact of this chronic, complex condition, this Commission aims to address key questions at the intersection of policy, public health, primary care, health-service delivery, and research. The Commission will advance an evidence-based, multimodal approach that aims to transform osteoarthritis prevention, management, and policy and provide actionable recommendations



for clinicians, policy makers, regulatory agencies, and governments. Our recommendations will aim for health, societal, and economic benefits and provide a roadmap to a world free from osteoarthritis-related disability.

DJH is a National Health and Medical Research Council (NHMRC) Investigator Leadership Fellow and receives consulting fees from Merck Serono, TLC Bio, Tissuegene, Lilly, and Pfizer for osteoarthritis-related scientific advisory roles. LM has received speaking and consultancy honoraria from Bristol Myer Squibb, Pfizer, Lilly, and AbbVie and research support from AbbVie, Lilly, and Janssen, all for non-osteoarthritis-related topics. MC is a practising part-time general practitioner.

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