

focus on the local dynamics of how supremacy creates health (in)equity within countries, and expansion of our disciplinary focus to include research methods to understand how the geopolitics of supremacy creates health (in)equity between countries and to incorporate the knowledge held by the intended beneficiaries of global health efforts.

As we emphasised,¹ colonialism and power asymmetry between high-income countries (HICs) and low-income and middle-income countries (LMICs) is but one manifestation of supremacy. Therefore, undoing supremacy will require much more than decolonisation. Nevertheless, decolonisation is a good place to start given its role in the creation of global health, and how coloniality persists in the field. The structures of supremacy and oppression that manifest between countries are reflected within countries in the supremacist institutions of, for example, class, racism, casteism, and patriarchy. Although the historical origins and underlying philosophy and rationale of these institutions might differ, they are similar in how they oppress and maintain inequities in (the circumstances that create) health. In addition to national spaces, oppressive power relations of supremacy are writ large in intranational spaces too.

To understand how geopolitics perpetuate inequities and how incorporating local knowledge can help to reduce inequities in global health, we must undo another important supremacy in the field—ie, the disciplinary supremacy that places the quantitative biomedical and epidemiological sciences (often led by HICs) above the qualitative political and anthropological sciences.² One of the many great lessons of the COVID-19 pandemic is that achieving equity in (the circumstances that create) health is at least as much a domain of the political and anthropological sciences as it is one of the biomedical and epidemiological sciences. This lesson is relevant within

HICs and LMICs, as it is in global and international affairs.

Ultimately, as both Correspondences highlight, the locus of the change we seek in global health is within not only HICs but also LMICs. In research partnerships or funding decisions, it is not enough that HIC actors lean out.³ LMIC actors must also lean in—eg, by calling out parachute research, demanding reciprocity, setting up their own high-impact academic journals, or building high-quality schools of public health. However, doing so requires funding and political action, which national and international power relations might obstruct, but against which we must fight because combating all forms of supremacy should be synonymous with global health.

SA is editor-in-chief of *BMJ Global Health* and MP is on its editorial board. MP also serves on the editorial board of *The Lancet Infectious Diseases*.

Seye Abimbola, *Madhukar Pai
madhukar.pai@mcgill.ca

School of Public Health, University of Sydney, Sydney, NSW, Australia (SA); Department of Epidemiology and Biostatistics, School of Population and Global Health and McGill International TB Centre, McGill University, Montreal, QC H3A 1A2, Canada (MP)

- 1 Abimbola S, Pai M. Will global health survive its decolonisation? *Lancet* 2020; **396**: 1627–28.
- 2 Richardson ET, Farmer P. Epidemic illusions: on the coloniality of global public health. London: The MIT Press, 2020.
- 3 Pai M. Men in global health, time to 'lean out.' Nov 19, 2020. <https://naturemicrobiologycommunity.nature.com/posts/men-in-global-health-time-to-lean-out> (accessed Jan 11, 2021).

Osteoarthritis in 2020 and beyond

We applaud the bold move of creating the *Lancet* Commission on Osteoarthritis, an often forgotten illness.¹ Globally applicable and acceptable solutions need transdisciplinary action, which the Commission has clearly thought about, given its diverse professional make-up. In this line of thought, we would like to highlight two other *Lancet* Commissions, the *Lancet* Commission on Global Surgery

and the ongoing *Lancet* Commission on Diagnostics.²

Total hip arthroplasty is considered one of the most successful and cost-effective surgical interventions ever developed.³ Furthermore, even though the mantra we treat patients and not x-rays remains a core value in orthopaedic surgery, treating patients with osteoarthritis without access to diagnostics is near to impossible. Despite the benefits of diagnostics, economic constraints in low-income and middle-income countries severely restrict access to surgical care and diagnostic technology.^{2,4} We believe that the work done by the *Lancet* Commission on Global Surgery and the *Lancet* Commission on Diagnostics can meaningfully inform the work of the *Lancet* Commission on Osteoarthritis.

Additionally, we would like to ask the commissioners to consider inviting a paediatrician or paediatric (orthopaedic) surgeon to further the transdisciplinary nature of the Commission. Such an expert could provide valuable insights on paediatric conditions that predispose osteoarthritis, such as scoliosis, developmental dysplasia of the hip, Legg-Calvé-Perthes disease, or septic arthritis, and possible pathways for prevention and mitigation.⁵

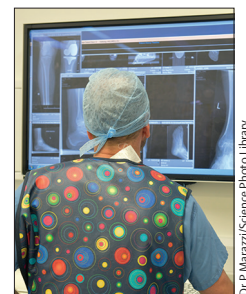
We wish the commissioners all the best in their important work, and we hope that they are willing to consider our reflections and suggestions.

MP is supported by a grant from the Belgian Kids' Fund for paediatric research. JGM is a commissioner on the *Lancet* Commission on Global Surgery and the *Lancet* Commission on Diagnostics. All other authors declare no competing interests.

*Manon Pigeolet, Anusha Jayaram, Kee B Park, John G Meara
manon.pigeolet@outlook.com

The Program in Global Surgery and Social Change, Department of Global Health and Social Medicine, Harvard Medical School, Boston, MA 02115, USA

- 1 Hunter DJ, March L, Chew M. Osteoarthritis in 2020 and beyond: a *Lancet* Commission. *Lancet* 2020; **396**: 1711–12.
- 2 Wilson ML, Atun R, DeStigter K, et al. The *Lancet* Commission on diagnostics: advancing equitable access to diagnostics. *Lancet* 2019; **393**: 2018–20.



Dr P Manazil/Science Photo Library

For the *Lancet* Commission on Global Surgery see <https://www.thelancet.com/commissions/global-surgery>

- 3 Learmonth ID, Young C, Rorabeck C. The operation of the century: total hip replacement. *Lancet* 2007; **370**: 1508–19.
- 4 Meara JG, Leather AJM, Hagander L, et al. Global Surgery 2030: evidence and solutions for achieving health, welfare, and economic development. *Lancet* 2015; **386**: 569–624.
- 5 Engesaeter LB, Engesaeter IO, Fenstad AM, et al. Low revision rate after total hip arthroplasty in patients with pediatric hip diseases. *Acta Orthop* 2012; **83**: 436–41.



Authors' reply

We thank Manon Pigeolet and colleagues for their thoughtful suggestions. We agree that the *Lancet* Commission on Global Surgery and the *Lancet* Commission on Diagnostics are critically relevant in the osteoarthritis field, and we look forward to interacting with both groups.

The general guidance for osteoarthritis is that the diagnosis is a clinical one,¹ for which imaging can be used if other diagnostic possibilities need to be ruled out or in the latter stages of disease when staging for surgery. However, the use of imaging in general, particularly MRI in developed nations, is such that it often leads to further unnecessary interventions, such as low-value knee arthroscopy.^{2,3}

We completely agree with the issues raised of equity and constraints on access to highly cost-effective interventions, such as total hip arthroplasty. Equitable distribution of these valuable resources remains an issue in both low-income and middle-income countries, as well as high-income countries.⁴ In addition, there are many opportunities for adequate decision support around the appropriateness of surgery and other less invasive presurgical interventions.

We appreciate the suggestion to include a paediatric orthopaedic surgeon and recognise the importance of paediatric conditions that might predispose to osteoarthritis. We similarly recognise that prevention is a key missed opportunity in osteoarthritis, and the selection of some

of the commissioners has been based upon their expertise in areas of prevention—specifically those targeting joint injury and people above a healthy weight. Striving for a diversity of expertise, backgrounds, and geography with adequate representation of individuals from low-income and middle-income countries among the commissioners, while balancing the constraints of a manageable group size, means we could not, unfortunately, include every area of expertise.

DJH is a National Health and Medical Research Council Investigator Leadership Fellow and reports receiving consulting fees from Merck Serono, TLC Bio, Tissuegene, Lilly, and Pfizer for osteoarthritis-related scientific advisory roles. LM reports receiving speaking and consultancy honoraria from Bristol Myers 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 and Senior Editor at *The Lancet*. The commissioners for the *Lancet* Commission on Osteoarthritis are listed in the appendix.

*David J Hunter, Lyn March, Mabel Chew, on behalf of the commissioners for the *Lancet* Commission on osteoarthritis
david.hunter@sydney.edu.au

Rheumatology Department, Royal North Shore Hospital, Northern Clinical School, Faculty of Medicine and Health, University of Sydney and Institute of Bone and Joint Research, Kolling Institute of Medical Research, University of Sydney, Sydney, NSW 2065, Australia (DJH, LM); Clinical Research Centre, Zhujiang Hospital, Southern Medical University, Guangzhou, China (DJH); *The Lancet*, Sydney, Australia (MC)

- 1 UK National Clinical Guideline Centre. Osteoarthritis: care and management in adults. London: National Institute for Health and Care Excellence, 2014.
- 2 Ardern CL, Paatela T, Mattila V, Taimela S, Järvinen TLN. When taking a step back is a veritable leap forward. Reversing decades of arthroscopy for managing joint pain: five reasons that could explain declining rates of common arthroscopic surgeries. *Br J Sports Med* 2020; **54**: 1312–13.
- 3 Hamilton DF, Howie CR. Knee arthroscopy: influence of systems for delivering healthcare on procedure rates. *BMJ* 2015; **351**: h4720.
- 4 Ezomo OT, Sun D, Gronbeck C, Harrington MA, Halawi MJ. Where do we stand today on racial and ethnic health disparities? An analysis of primary total hip arthroplasty from a 2011–2017 national database. *Arthroplast Today* 2020; **6**: 872–76.

Satiation or satiety? More than mere semantics

We read with interest the excellent Series paper by Alexander Ford and colleagues¹ describing the epidemiology, pathophysiology, and management of functional dyspepsia. We commend the authors for establishing a timely and informative overview of this disorder.

Ford and colleagues use the terms early satiety and early satiation interchangeably. In fact, the Rome IV paper on gastroduodenal disorders does the same, albeit the symptom definition in the diagnostic criteria refers specifically to early satiation.² Early satiation is also a distinctive feature of the postprandial distress syndrome subtype of functional dyspepsia, which is characterised by symptom triggering or aggravation by a meal. However, we would like to emphasise that, although regularly used as synonyms, satiety and satiation are two different entities. Satiety refers to the feelings of fullness between meals, whereas satiation reflects feelings of fullness during ingestion of a meal, acting as a terminating factor.³ This distinction can be relevant as it potentially reflects different underlying mechanisms. Meal nutrient volume-induced satiation is probably closely related to gastric accommodation—ie, mechanosensory reaction of the proximal stomach. However, as the stomach does not meaningfully detect nutrient composition of a meal, the feeling of satiety involves neurohormonal signals that originate from more distal parts of the gastrointestinal tract—ie, the duodenum.⁴

Because of the heterogeneity of the disorder and the complexity of its symptomatology, it is important to use clear and consistent terminology to support unravelling pathophysiological mechanisms and to improve treatment outcomes.

See Online for appendix