



Decolonisation of Health in East Africa: Opinion Piece

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Funding: An NIHR Grant was awarded to University of Glasgow and has supported some of the academic work described in this article. Additionally, Health Education England (NE) provided funding for some of the teaching referenced in the paper.

Potential competing interests: No potential competing interests to declare.

Abstract

Access to healthcare largely depends on where you live and how much money you have. It is far from equally accessible to all. The National Health Service (NHS) was established in 1948 to address this inequality and improve access to reasonable standards of healthcare to all United Kingdom (UK) residents and to ensure that this was free at the point of delivery. The NHS has been described as ‘the envy of the world’ despite its well-documented challenges. The NHS has driven quality and consistency of clinical care within the UK for decades, and along with universities and many other organisations, it has also fostered a reputation for excellent academic research and teaching. However, the long shadow of the UK’s colonial past on health care provision elsewhere is increasingly recognised. Far from producing and sharing its ‘commonwealth’ equally with people inhabiting the countries it colonised, the UK has been accused of exploiting them in a variety of ways. This opinion piece describes and discusses the past and present influence of the UK in African healthcare and offers some examples of practices that might facilitate improved clinical and academic outcomes for all marginalised people in the future.

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Background

We describe a true collaboration between physicians working in East Africa and those who are UK based. We are all motivated by the same desire to improve healthcare outcomes at every level. This includes clinical, teaching and academic developments. Richard has worked in Tanzania intermittently for 30 years, while Clive's involvement has been for 7 years. As an Irishman who has been involved with the NHS for nearly 5 decades, Clive has felt uncomfortable about the exploitation of overseas healthcare workers and the evident racism that has recently been highlighted. When we were invited to become involved in new initiatives to improve Tanzanian healthcare, we gratefully accepted the chance to work with our three younger African colleagues. Sanaa, Nateiya and Sanjura have become friends and are part of the bright future for African healthcare. Richard and Clive have combined experience of working across 8 other African countries, and we have used this to extend the themes and initiatives across East Africa.

Workforce

The NHS has traditionally relied on international medical graduates (IMGs) and overseas nurses, and this trend is accelerating. In 2019, 20% of registered General Practitioners (GPs) in England had qualified outside of the UK, with 80% of these coming from Africa and Asia ^[1]. Three years later, in 2022, that percentage had doubled to over 40%, with Africa contributing the greatest number. That same year overseas doctors accounted for 63% of the 23,838 new additions to the UK medical workforce ^[2]. This amounts to an accelerating brain drain, with many African medics leaving their own countries after completing their medical training to support the ailing NHS, often replacing UK medical graduates who have elected to move overseas to work in Australia, New Zealand, Europe or North America. Concerns about exploitation and discrimination have also been voiced over the experiences of African nurses working in the UK ^[3]. This feels grossly unfair to ordinary Africans whose access to health care in their own country remains diminished because of these trends. Attempts to regulate this trend were agreed between the governments of the UK and both Kenya and the Philippines in November 2021 [Bilateral agreement between the UK and Kenya on healthcare workforce collaboration - GOV.UK](https://www.gov.uk/government/news/bilateral-agreement-between-the-uk-and-kenya-on-healthcare-workforce-collaboration) (www.gov.uk)

Politics

The situation was not helped by the UK's decision to reduce its support for developing countries in the wake of its own financial challenges following the Covid-19 pandemic ^[4], and Africa bore the brunt of these cuts. However, Rishi Sunak, who was responsible for this decision as Chancellor, has now announced that he will host a UK / Africa investment summit conference in April 2024 as Prime Minister ^[5]. This could conceivably presage a return to previous levels of support for Africa. However, the present attitude of the UK Government towards immigrants and refugees has become increasingly aggressive and negative. Only those with qualifications deemed to be useful to the UK are welcomed. This selective approach applies especially to those with health care qualifications who are treated as 'persona grata', unlike many of their less favoured fellows. Despite acknowledging the atrocities perpetrated in Africa, the British government has been intransigent in not apologising (as Germany did). Such an attitude may indicate reluctance to engage in decolonisation efforts in the health sector. Given the UK's political intransigence, how can we begin to redress the global imbalance within healthcare access and delivery? Such a task needs to be undertaken with collaboration across many organisations. The British Medical Association (BMA) must reassess its policies and priorities from a decolonising perspective ^[6], whilst the British Broadcasting Company (BBC) needs to change its focus away from a UK-centric to a more global interest in healthcare ^[7]. A fundamental change in approach is required in the relationship between the Global North and Africa as the present mechanisms of support risk potentiating the tendency to maintain the present power base in 'coloniser countries' ^[8].

Changing Clinical Priorities and Practice

A recent British Medical Journal (BMJ) editorial encouraged us all to be "brave, hopeful and essential" in decolonising health ^[9] and we would like to share our experiences in that endeavour. Over the last 5 years we have worked together in Tanzania to design, develop and deliver clinical services for patients with non-communicable disease (NCD). We agree

that "efforts must begin with medical education and training" ^[10], as our Tanzanian medical curriculum previously focussed largely on infectious disorders. With tropical diseases like malaria ^[11], and even leishmaniasis ^[12], likely to gradually diminish with vaccination programs, NCDs already account for nearly half of all deaths ^[13] and much morbidity across East Africa. We facilitated a program on NCDs to combine medical education, clinical research and service development, and replicated this across several sites. African and European hospitals and universities have worked in tandem to exchange knowledge within an equitable partnership to provide and sustain evidence-based clinical practices. The rapid changes in the patterns of disease in Africa have implications for the training and responsibilities of all health care workers across the continent. There is a huge need to develop and staff screening programs for the detection and treatment of hypertension and diabetes which requires investment in teaching and training in these areas. Likewise, there is increasing recognition of the importance of auto-immune disorders ^[14] and musculoskeletal disease ^[15] across all age groups ^[16] in East Africa, although the present provision of rheumatological services remains woefully behind that available for the rest of the continent ^[17]. Evidence exists that an increasing burden of systemic complications of these chronic disorders is recognised ^[18], and that mental health issues are becoming a bigger issue among younger Africans ^[19]. Together these carry a growing clinical, economic and societal burden for East Africa ^[20].

Much rhetoric has been expressed over the principles of decolonising medicine, but less has been written about the practical aspects of how to achieve this at a clinical level. Following the recognition that there is a gross lack of darker skin tones among clinical learning resources ^[21], we have developed medical educational videos of African doctors examining Africans with Swahili commentary, along with a photo library to show disorders present in patients with dark skin. These will soon be freely accessible to all African clinicians. The Tanzanian medical curriculum has been expanded to incorporate the increasing burden of NCDs for all staff and consolidated in a series of open access PowerPoint presentations. Clinical services have been established with ongoing input from self-funding UK clinicians during sabbaticals and study leave, who continue to facilitate online seminars, case discussions and advice via regular virtual meetings and WhatsApp consultations. These sessions are attended by clinicians from several different regions of Tanzania. However, we have been requested to expand the discussion into neighbouring countries. The Tanzanian Ministry of Health has engaged with further efforts to improve care for people with musculoskeletal (MSK) disease in Tanzania. It is essential that these initiatives are not just directed towards doctors but extend to all health care workers who play a huge part in providing clinical care, especially in the community. We presented our findings and experiences at the first East African regional non-communicable diseases conference, which enabled us to sensitise stakeholders beyond Tanzania.

The provision of MSK care is worse in East Africa than anywhere else on the continent. Although educational courses in rheumatology are available online, they are very focussed on presentations of patients from the Global North and are not context specific. Many of the investigations and therapeutic interventions described and proposed, although scientifically sound, are simply not appropriate for, or indeed available within, an East African setting. Tanzanian clinicians request advice and support from clinicians working in the Global North who respond to the needs we identify locally. We are best placed to define the deficiencies in our clinical service and which patients we need help with. Hence, we can seek targeted and patient-specific support from our northern colleagues as and when required, and we control the clinical agenda. It is

very much a case of quality, not quantity, when it comes to requesting clinical support, and the dynamics of the collaboration feel both constructive and appropriate.

Our colleagues from the north share our vision of developing an independent sustainable clinical service in East Africa. There are several other programs designed and developed to support knowledge exchange between the Global North and East Africa. This includes the International Postgraduate Medical Training Scheme (IPGMTS) which focuses largely on physical health and ‘enables overseas doctors, by arrangement with international governments, to undertake full speciality training to UK standards. This takes doctors from entry to the Certificate of Completion of Training (CCT) and recognition in the GMC specialty register, in England, before returning home to practice as consultants in their chosen field.’ Another initiative, this time in the field of mental health, is the Mental Health Gap Action Programme (mhGAP) which supports scaling up services for mental, neurological and substance use disorders mainly in low- and middle-income countries (LMIC).

The Royal College of Physicians (RCP) in London facilitated the establishment of the East, Central and Southern African College of Physicians (ECSACoP) in 2015, bearing in mind that the West African College of Physicians (WACP) has been in existence for several decades. ECSACoP includes 6 countries, Kenya, Malawi, Tanzania, Uganda, Zambia and Zimbabwe and one of the main aims is to improve, and harmonise, postgraduate medical training in these countries. The RCP with east African colleagues also supported the medical training and fellowship (METAF) programme with funding support from the east African development bank to provide training in neurology and oncology in Kenya, Rwanda, Tanzania and Uganda from 2016 to 2020 [22]. Courses were jointly developed between UK and African colleagues with most of the faculty being African and with sustainability in mind, using methods such as train the trainer approach.

We African physicians who helped to coordinate this joint venture, would say that our experience with this collaboration has been great. We managed to get support to attend training for research methods and management of MSK conditions for more than 20 staff members in total. We also managed to start a clinic for these patients because our capacity and confidence in identifying, diagnosing and treating patients was enhanced by working in tandem with our Global North collaborators. We came up with recommendations for what is needed to improve MSK care in Tanzania by conducting several in country multistakeholder meetings from which emanated the training videos concept. Our Global North collaborators sought to understand us and our needs, offering clinical and personal developmental support whenever necessary and feasible. All activities were initiated and supervised by African healthcare providers and have had a great capacity building effect on our part.

Volunteering abroad can also provide real benefits for NHS staff. Health Education England (HEE), who provided this opportunity, state ‘It can give them a fresh perspective, new skills and approaches that can be applied to their work in the health service and help them and the wider health service improve the quality of care we provide.’ We have been involved in the HEE initiative and can confirm the benefits experienced by UK trainees in learning from local culture and customs and reflecting on the colonial biases which everyone has to overcome when partnering with Africa. Change only comes about when individuals shift their mindsets, and learning from the experiences of local healthcare providers offered much insight into how care might be improved elsewhere. Specific examples related to learning of the healing properties of

banana leaves in the treatment of burns, and the use of fava beans in the treatment of Parkinson's disease.

Academic Challenges

The situation in academic medicine has placed Africans at a distinct disadvantage for decades. Not only does it take non-native English speakers longer to read and write scientific papers [23], but preprints from the African continent are over 50% less likely to be published as full peer-reviewed papers [24]. This is consistent with reduced resources and editorial bias. One African author had a paper rejected from a prominent journal when he gave an African address, but the same paper was accepted with minimal corrections when it was submitted from the UK [7]. Whilst academic output was never our priority, we have published eight articles which document our collaboration spanning several clinical domains. With the equality, diversity, inclusivity and justice (EDIJ) agenda visibly linked to decolonisation, it is worth noting that 60% of our authors are African, while 57% are female. Furthermore, the majority of the first authors are African and the last authors are female. Publishing such work in African journals needs to be more actively encouraged by increasing their value and visibility. As stated in the BMJ podcast series, Journal editors have a huge influence in this area. Developing a 'global health' BMJ and Lancet is an acknowledgement "that you give equal weight to the quality of life and to the rights of all populations" [7], but all true "partnerships must be built on humility, a willingness to learn, and a shift of power to individuals and institutions" in the global south [9], and this philosophy should extend to academic as well as to clinical arenas.

The majority of funders for research in LMICs are based in higher income countries (HICs) and, up until recently, a lot of the funders required grants to be led from the HIC partner. This necessitated LMIC partners to be approached by HIC partners or else to find out which HIC partners might be interested in submitting a bid. Submitting such bids requires a lot of experience and support which are often lacking in LMICs. However, recently several grant calls have specifically stated that bids can be led by LMICs, and don't necessarily require an HIC partner. For example, there are now 6 National Institute of Health Research (NIHR) Global Health Research Groups (GHRG) which are led by LMIC partners and, while this is only a small proportion of the overall GHRGs, this is certainly a step in the right direction. Furthermore, two of the authors of this paper are presently undertaking PhDs with the direct support of academic institutions in the Global North. This has already led to several publications that will help signpost and sustain the development of clinical services in East Africa.

However, too many publications using data from Africa are still published in Global Northern journals by researchers without inclusion of those who collected the data or to whom the data relates. In addition to placing Africans at an academic disadvantage, this approach reduces the likelihood of a change in approach as a result of the study as those most affected are less likely to receive appropriate feedback. A recent paper on the microbiome of hunter-gatherers in Tanzania excluded those who collected the data and offered no feedback to the tribe who had agreed to produce the samples in exchange for scientific advice [25]. However, equitable access to grant funding and authorship for Africans is entirely feasible and should be the rule rather than the exception. A cross-sectional multi-centre study is underway to investigate sickle cell disease mutational burden across Uganda and Tanzania, with ethnically matched controls in the

USA and UK, and has the potential to unlock gene therapy for this devastating condition [26]. It is self-evident, in an academic environment where success is judged on the quality and quantity of published papers in tandem with grant funding achieved, that African researchers should have equitable access to grant funding and should be encouraged to seek greater representation on the editorial boards of influential journals. Indeed, not only editorial support, but positive discrimination should be considered [9][27].

The difficulties caused for academics during the recent Covid-19 pandemic were felt more keenly in Africa than in the Global North [28]. Community involvement, an essential element of clinical research, was particularly affected in Africa, where survival in the absence of protective equipment or vaccination was the priority [29]. This led to an inevitable dependency on remote access which was often impractical in the absence of reliable internet access [28] or appropriate electronic devices [30]. Colonialism still influences the structure and function of health care systems in East Africa, long after other legacies have left [31]. Covid-19 was only the latest in a series of African epidemics, following hot on the heels of the Ebola crisis, which was related to chronic underfunding of the healthcare system because of funds being previously prioritised for profitable mining operations [32]. This hints at the heart of the issue. European guidelines for maternity and ante-natal services recommend access to hospital support services for all [33], whereas global guidelines in Africa accept a much more basic level of care with the attendant difficulties in transportation to the hospital if complications arise [34]. As Yanful et al state 'Highlighting such double standards may push health systems to change course, develop innovative solutions to facilitate access to comprehensive services before labour begins, and help achieve more equitable and effective systems' [31]. Most African countries, including Tanzania, can only spend about US\$100-200 per person per year on health, while the UK invests US\$ 4-5000 per person per year into their healthcare [35]. A global and common health care standard may appear fanciful at present, but a hard-hitting article on racism in maternal care argues otherwise. Catalao et al suggest that new approaches are needed to tackle the root causes of race inequalities in this area, and that these are a direct consequence of both historic and current colonial policies [36].

Although this paper focusses chiefly on decolonisation and its specific application to healthcare, it seems appropriate to reference the EDIJ agenda and other disadvantaged groups. Disability can be associated with reduced representation in academic circles [37], and diversity may be under-represented among senior academics [38]. The parallel with the challenges faced by many people of colour is apparent. It seems self-evident that the motto 'nothing about us without us' [39] should be applied equally to all minority groups under the EDIJ banner, and that academic proposals should invite, involve, and include those on whom the research focusses and without whom there would be no story to tell. However, it is well-documented that this is not always the case. As recently as 2021, the proposed Spectrum-10K study came under heavy criticism for not including sufficient input from the autistic community within its construct, leading to a 2-year voluntary pause for detailed consultation [40]. The invited involvement of patients and academics to help design and complete studies relevant to them is surely self-evident. Such an approach is essential if the work is to be relevant and credible, and this approach facilitates a wider distribution of relevant information among those to whom the study recommendations apply. This principle is commended wherever possible for all people-based research as required by patient and public involvement (PPI) [41]. Recent practical resources facilitating the widespread adoption of these principles are now published [42].

Future Priorities

A change in the balance of power is required with the evolution of an 'equal access to healthcare for all' philosophy^[43]. The Global North must learn to work in partnership with Africans on their terms and in their own environment^[44]. Clear outcome measures must be discussed and agreed, with an expectation of mutual knowledge exchange^[45]. Practical, affordable, and culturally acceptable change must be considered in the context of a sound evidence-base, with lessons learned shared with the population from whence the data were derived^[46]. Indeed, given that PPI has become engrained into the philosophy adopted by clinical researchers in the Global North, why should Africans accept anything less? At a teaching level too, a change in approach is overdue. Perhaps the curriculum should include a reflection on the nature of colonialism and its effects on present day societal structures and related healthcare priorities^[47]? On a positive note, the introduction of newer technologies such as point of care ultrasonography into the Emergency Department, does save lives, and is now being taught in several LMICs in East Africa^[48].

Another example of improving care in LMIC is the recently established African Network of Medical Excellence (ANME), which is an initiative to develop an integrated network of medical centres of excellence across the continent, affirming the right of every human being to access free, high-quality medical care. Their aims as stated in May 2022, include: promoting the ANME model inside our own countries to build a deeper knowledge of the system and to foster a higher level of political endorsement; Identifying relevant health priorities that can be addressed by a cooperative and comprehensive response, and that allow for the referral of patients from across the region; Improving regional cooperation amongst ANME countries and partners in order to reinforce the network and all its components; Strengthening efforts to mobilise resources from governments, international institutions, and donors to guarantee the long-term financial sustainability of the ANME.

The ultimate aim of decolonisation must be to provide parity across every domain to all people independent of who they are and where they live. Whilst gross inequality remains evident even within the UK, we must not let this distract us from trying to level the playing field elsewhere, especially as the global north was responsible for marking out the pitch as well as inventing the rules. As a bard once famously wrote "All the world's a stage and all the men and women merely players"^[49]. Given the UK's recent political and financial disinvestment in Africa, we have a lot of ground to make up. We like to think that the development of equitable partnerships facilitates sustainable independence and that those willing to invest their time and experience in catalysing this process will be galvanised by the prospect of shared success.

Acknowledgements

We would like to acknowledge the essential parts played by the University of Glasgow, Kilimanjaro Clinical Research Unit, Newcastle University, Northumbria Healthcare NHS Foundation Trust, Kilimanjaro Christian Medical Centre, Health Education England (NE), the University of Bergen, and Mnazi Mmoja Hospital on Zanzibar, in addition to the contributions made by many individuals both from these Institutions and independently. Without their support, none of this could have happened.

Other References

- Makri A. Bridging the digital divide in health care. *The Lancet Digital Health* 2019;1:e204–5. doi:10.1016/S2589-7500(19)30111-6

References

1. [^] *International migration and the healthcare workforce - Office for National Statistics (ons.gov.uk)*
2. [^] Rimmer A. GMC: Let doctors work more flexibly. *BMJ* 2023 18th November, p258. doi: [BMJ2023;383:p2650](https://doi.org/10.1136/bmj.2023.383.p2650)
3. [^] Likupe G. Experiences of African nurses in the UK National Health Service: a literature review. *J Clin Nurs*. 2006 Oct;15(10):1213-20. doi: [10.1111/j.1365-2702.2006.01111.x](https://doi.org/10.1111/j.1365-2702.2006.01111.x)
4. [^] Cameron-Chileshe J. Overseas aid cuts make Britain an outlier among G7. *Financial Times*. July 15th 2021. *Overseas aid cuts make UK an outlier among G7 (ft.com)*
5. [^] UK-Africa Investment Summit announced for April 2024 - *The Africa Report.com*
6. [^] Akinnawonu L. Student activism drives decolonisation in medicine. *BMJ* 2023; 383 doi: <https://doi.org/10.1136/bmj.p2337> (Published 16 October 2023)
7. ^{a, b, c} Looi M-K. What should decolonisation of medical institutions look like? *BMJ* 2023; 383 doi: <https://doi.org/10.1136/bmj.p2257> (Published 16 October 2023)
8. [^] Rasheed M. The case for a Global South centred model in global health. *BMJ* 2023; 383 doi: <https://doi.org/10.1136/bmj.p2256> (Published 16 October 2023)
9. ^{a, b, c} Abbasi K. Decolonising medicine and health: brave, hopeful, and essential. *BMJ* 2023; 383 doi: <https://doi.org/10.1136/bmj.p2414> (Published 19 October 2023)
10. [^] Naidu T. Coloniality lives on through medical education. *BMJ* 2023; 383 doi: <https://doi.org/10.1136/bmj.p2294> (Published 16 October 2023)
11. [^] Dattoo M, Dicko A, Tinto H et al. A Phase III Randomised Controlled Trial Evaluating the Malaria Vaccine Candidate R21/Matrix-M™ in African Children. *Lancet preprint at SSRN* <http://doi.org/10.2139/ssrn.4584076> (2023).
12. [^] King A. In search of a vaccine for leishmaniasis. *Nature Outlook*. 17 August 2023
13. [^] Kraef C, Juma PA, Mucumbitsi J, et al. Fighting non-communicable diseases in East Africa: assessing progress and identifying the next steps. *BMJ Global Health* 2020;5:e003325.
14. [^] Krauth S, Yongolo N, Biswaro S, Kelly C, Walker R, Siebert S, et al. Prevalence and associated factors of musculoskeletal joint disease in the community setting in Hai district, northern Tanzania, *Rheumatology*, Volume 61, Issue Supplement_1, May 2022, keac133.104, <https://doi.org/10.1093/rheumatology/keac133.104>
15. [^] Kuo C, Black L, Barber S and Kelly CA. Arthritis in East Africa. *African Journal Rheumatol* 28 Feb 2023 Vol. 11;1 (2023), pages 3 – 9.
16. [^] Walsh R, Mwingwa A, Yongolo N, Biswaro S, Mwanswila M, Kelly C et al. (2022) The spectrum and burden of in-patient paediatric musculoskeletal diseases in Northern Tanzania, *Paediatrics and International Child Health*, DOI: [10.1080/20469047.2022.2062561](https://doi.org/10.1080/20469047.2022.2062561)

17. ^Mody G, Tikly M, Hajjaj-Hassouni N. Global excellence in rheumatology: Africa. *Front. Med.*, 28 April 2023 *Rheumatology* 10 - 2023 <https://doi.org/10.3389/fmed.2023.1201020>
18. ^Said S, Omar N, Juma F, and Kelly CA. Clinical, serological and radiological findings in patients with rheumatoid arthritis from Zanzibar comparing those with and without interstitial lung disease: 'Trends in Immunotherapy' October 2023
19. ^Elinisa M, Lugata S, Doshi B, Kelly CA, Ngocho JS. *Journal of Mental Health*. Symptoms and predictors of depression among university students in the Kilimanjaro region of Tanzania: a cross-sectional study. *J Mental Health* 2020 <https://www.tandfonline.com/eprint/J42TTPRHBG6FJ4KEIG8K/full?target=10.1080/09638237.2020.1793129>
20. ^Mmbaga, B. T. et al. (2023) Musculoskeletal (MSK) disorders with arthritis screening in Tanzania: new insights into the growing clinical, economic and societal burden of non-communicable disease. *Tanzania Public Health Bulletin*, 10(1), pp. 8-14.
21. ^Abduelmula A, Akuffo-Addo E, Joseph M. The progression of skin color diversity and representation in dermatology textbooks. *J Cutan Med Surg* 2022; 26:523-5.
22. ^Walker R, Eastin J. Addressing the burden of cancer and neurological disorders in East Africa: East African Development Bank Medical Training and Fellowship (METAF) programme, Royal College of Physicians, commentary, January 2021: 22;24-26
23. ^Amano T, Ramírez-Castañeda V, Berdejo-Espinola V, Borokini I, Chowdhury S, Golivets M, et al. (2023) The manifold costs of being a non-native English speaker in science. *PLoS Biol* 21(7): e3002184. <https://doi.org/10.1371/journal.pbio.3002184>
24. ^Eckmann P, Bandrowski A (2023) A tool for preprint to publication detection shows global inequities in scientific publication. *PLoS ONE* 18(3): e0281659. <https://doi.org/10.1371/journal.pone.0281659>
25. ^Carter M, Olm M, Merrill B, Jha A, Sonnenburg E, Sonnenburg J. Ultra-deep sequencing of Hadza hunter-gatherers recovers vanishing gut microbes. *Cell*. 2023 VOLUME 186, ISSUE 14, P3111-3124.E13, JULY 06, 2023 <https://doi.org/10.1016/j.cell.2023.05.046>
26. ^Igbneweka N, Okoli S, Sohal M et al. Understanding genome-wide mutational burden in patients with sickle cell disease: experience in the United Kingdom.
27. ^Clark J, Hurley R, Ladher N, Jarvies D. What next for decolonising health and medicine? *BMJ* 2023;383:p2302. doi:10.1136/bmj.p2302 pmid:37844958
28. ^{a, b}Rose ES, Rabin TL, Samaan J, et al. COVID-19 pandemic impact on academic global health programs: results of a large International survey. *Ann Glob Health* 2022;88:84. doi:10.5334/aogh.3843Google Scholar
29. ^Nembaware V, Munung NS, Matimba A, et al. Patient-centric research in the time of COVID-19: conducting ethical COVID-19 research in Africa. *BMJ Glob Health* 2020;5:e003035. doi:10.1136/bmjgh-2020-003035Google Scholar
30. ^Tremblay S, Castiglione S, Audet L-A, et al. Conducting qualitative research to respond to COVID-19 challenges: reflections for the present and beyond. *International Journal of Qualitative Methods* 2021;20. doi:10.1177/16094069211009679Google Scholar
31. ^{a, b}Yanful B, Kumar M, Elorrio E, Atim C, Roder-DeWan S. Decolonisation and quality of care. *BMJ* 2023; 380 doi: <https://doi.org/10.1136/bmj-2022-071585> (Published 13 March 2023),

32. [^]Frankfurter R, Kardas-Nelson M, Benton A, et al. Indirect rule redux: the political economy of diamond mining and its relation to the Ebola outbreak in Kono District, Sierra Leone. *Rev Afr Polit Econ* 2019; 45:522-40. doi:10.1080/03056244.2018.1547188 pmid:31772418CrossRefPubMedGoogle Scholar
33. [^]European Foundation for Care of Newborn Infants. European standards of care for newborn health: birth and transfer. 2018. https://newborn-health-standards.org/wp-content/uploads/2022/08/2022_09_01_TEG_Birth_Transfer_all.pdf
34. [^]World Health Organization, UN Population Fund, Mailman School of Public Health Averting Maternal Health and Disability, Unicef. Monitoring emergency obstetric care: a handbook. 2009. <https://apps.who.int/iris/handle/10665/44121>
35. [^]Wirtz V, Hogerzeil H, Gray A, Bigdeli M, de Joncheere C, Ewen M et al. Essential medicines for universal health coverage. *The Lancet*, Vol. 389, No. 10067. Published: November 7, 2016
36. [^]Catalao R, Hatch S, Zephyrin L, Richardson S, Coghill Y and Smylie J. Tackling racism in maternal health. *BMJ* 4th November 2022, p195-197. doi: BMJ2023;383:e076092
37. [^]Lewis, N.A. What universities say versus do about diversity, equity and inclusion. *Nat Hum Behav* 6, 610 (2022). <https://doi.org/10.1038/s41562-022-01339-1>
38. [^]von Below R, Spaeth E and Horlin C. (2021) Autism in Higher Education: dissonance between educators' perceived knowledge and reported teaching behaviour, *International Journal of Inclusive Education*, DOI: 10.1080/13603116.2021.1988159
39. [^]Charlton JI. Nothing about us without us. In. *Nothing About Us Without Us*: University of California Press; 1998.
40. [^]Sanderson K. High-profile autism genetics project paused amid backlash. *Nature* 598, 17-18 (2021) doi: <https://doi.org/10.1038/d41586-021-02602-7>
41. [^]Jackson, T., Pinnock, H., Liew, S.M. et al. Patient and public involvement in research: from tokenistic box ticking to valued team members. *BMC Med* 18, 79 (2020). <https://doi.org/10.1186/s12916-020-01544-7>
42. [^]Arumugam A, Phillips L, Moore A et al. Patient and public involvement in research: a review of practical resources for young investigators. *BMC Rheumatol* 7,2 (2023) <https://doi.org/10.1186/s41927-023-00327-w>
43. [^]Basu L, Pronovost P, Molello NE, Syed SB, Wu AW. The role of South-North partnerships in promoting shared learning and knowledge transfer. *Global Health* 2017;13:64. doi:10.1186/s12992-017-0289-6 pmid:28830489CrossRefPubMedGoogle Scholar
44. [^]Victora CG and Moreira CB. North-south relations in scientific publications: editorial racism? *Rev Saude Publica*. 2006; 40 (in Portuguese): 36-42
45. [^]Hedt-Gauthier BL, Jeufack HM, Neufeld NH, et al. Stuck in the middle: a systematic review of authorship in collaborative health research in Africa, 2014–2016. *BMJ Glob Health*. 2019; 4e001853
46. [^]Bhakuni H, Abimbola S. Epistemic injustice in academic global health. *Lancet Global Health*: August 09, 2021 DOI: [https://doi.org/10.1016/S2214-109X\(21\)00301-6](https://doi.org/10.1016/S2214-109X(21)00301-6)
47. [^]Skopec M, Issa H, Reed J, Harris M The role of geographic bias in knowledge diffusion: a systematic review and narrative synthesis. *Res Integr Peer Rev*. 2020; 5: 2
48. [^]Trovato FM, Catalano D, Trovato GM. Thoracic ultrasound: An adjunctive and valuable imaging tool in emergency, resource-limited settings and for asustainable monitoring of patients. *World J Radiol*. 2016 Sep 28;8(9):775-784. doi:

10.4329/wjr.v8.i9.775.

49. [^]Shakespeare W. *'As you like it' 1623: Act 2, scene 7.*