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Integrating epistemic justice in global cancer research

Milit S. Patel, Maria Jocelyn Kara Magsanoc-Alikpala, Erin Jay G. Feliciano, Leo Anthony Celi, T. Peter Kingham, Nancy Y. Lee & Edward Christopher Dee

Current systems of cancer research marginalize knowledge from low- and middle-income countries, where most future cancer cases will occur, by privileging high-income country evidence and often overlooking local expertise and context-specific needs.

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Cancer cases are projected to exceed 35 million annually by 2050, with the majority occurring in low- and middle-income countries (LMICs)[1]. Despite advances in oncology, a profound gap persists in global cancer research: knowledge generation remains concentrated in high-income countries (HICs), and the needs, contexts and expertise of LMIC researchers and populations are systematically underrepresented. Essential research questions go unasked, population-specific data are excluded, and prevailing definitions of 'quality evidence' privilege study designs that often infeasible in resource-constrained settings. Central to addressing these gaps is epistemic justice – the fair recognition of diverse ways of knowing and producing evidence. We acknowledge the risk of epistemic paternalism, in which HIC researchers define what epistemic justice should look like for LMICs. To avoid this, input from people who work or have worked in LMIC settings must be centred throughout authorship, collaboration and policy development. Embedding this principle in global cancer research can ensure contextually relevant interventions that reflect the realities of underrepresented populations[2].

Epistemic challenges in global cancer research

At its core, epistemic justice means fair recognition of all individuals and groups as credible sources of knowledge. In global cancer research, two central forms – testimonial and hermeneutical injustice – clarify how exclusion operates (Table 1). Testimonial injustice arises when expertise from LMICs or marginalized populations is discounted, often because evidence from HICs is favoured[2]. For instance, clinicians in sub-Saharan Africa may offer crucial insights into infection-related cancers, yet their experiences are often sidelined in international guidelines[2]. Hermeneutical injustice occurs when the conceptual tools for understanding cancers in underrepresented regions are lacking, which leaves local challenges invisible in the evidence base[2]. Recognizing these patterns is vital for addressing exclusion and rebalancing priority setting in global cancer policy.

These injustices manifest in diverse ways: essential research questions go unasked, population-specific data are systematically excluded, and prevailing definitions of quality evidence privilege randomized clinical trials that may not be feasible or ethically appropriate in resource-constrained environments[2]. These patterns also show how persistent funding asymmetries perpetuate epistemic injustice, and grant disproportionate decision-making power to HIC-based actors. In the context of cancer, this leads to skewed prevention priorities, insufficient access to affordable therapies, and an overall failure to address the unique epidemiological and sociocultural landscapes that shape disease burden in LMICs[1–3].

Evidence gaps and underrepresented knowledge

Concrete manifestations of epistemic exclusion in the global cancer landscape are numerous and consequential. Among the most critical gaps is the persistent focus on a narrow subset of cancer types in global research funding and policy agendas. While certain cancers are highly prevalent in high-income contexts, other lethal cancers disproportionately affect LMIC populations (including infection-driven gynecologic and gastrointestinal cancers and Kaposi's sarcoma) are underresearched and underprioritized[3]. Mongolia, for example, had the highest age-standardized incidence rate of gastric cancer globally at 43.7 per 100,000, and the highest age-standardized mortality rate at 40.04 per 100,000 (ref. 1). These rates surpass all other countries, including high-burden nations in East Asia and elsewhere[1]. This research agenda reflects both testimonial injustice (in which LMIC researchers' identification of priority diseases is discounted) and hermeneutical injustice, in which the burden of these cancers lacks adequate conceptual frameworks in international research paradigms.

Additionally, severe knowledge gaps persist in areas such as palliative care, supportive services (including nutritional support, symptom management and psychological counselling) and social determinants of access to cancer care. For instance, end-of-life care remains grossly underrepresented in both research and implementation, even though the majority of cancer deaths now occur in settings with little infrastructure for pain management or psychosocial support[4]. The lack of

Table 1 | Forms of epistemic injustice in global cancer research and their manifestations in LMIC contexts

Form of injustice	Definition	Global cancer research context
Testimonial injustice	The credibility of knowledge bearers from LMICs or marginalized populations is often discounted, commonly owing to implicit biases that favour evidence that originates from HICs[2].	Local clinicians or researchers in sub-Saharan Africa or Southeast Asia may have unique insights into the presentation and management of infection-related cancers, but their contributions are frequently overlooked in international guideline panels and policy fora[2].
Hermeneutical injustice	A deficit exists in the conceptual frameworks or vocabularies needed to make sense of cancer experiences in underrepresented settings, which renders local challenges invisible in the evidence base[2].	Essential research questions go unasked, population-specific data are systematically excluded, and prevailing definitions of quality evidence privilege study designs that may not be feasible in resource-constrained environments[2].

BOX 1

Concrete steps towards epistemic justice in global cancer research

Prioritize LMIC-led research and co-leadership
- Fund LMIC-driven agendas and partnerships
- Tailor proposals to local gaps
- Ensure equal authorship and resources

Modernize funding, publication and training
- Streamline grant processes for LMICs
- Expand eligibility and reduce bureaucracy
- Diversify editorial boards
- Require training on epistemic bias
- Adopt tools (for example, Team Card) for bias disclosure

Sustain partnerships rather than engaging in tokenistic inclusion
- Measure partnership depth and impact (for example, duration, projects and exchanges)
- Co-develop locally relevant guidelines
- Build national registries and collect disaggregated data

Reform evidence generation and trial designs
- Use pragmatic and adaptive trial models
- Relax exclusion criteria
- Integrate mixed-methods and qualitative research
- Use implementation science and centre patient voices

Incentivize knowledge translation and policy uptake
- Fund implementation and dissemination research
- Support LMIC-driven innovation (for example, task-shifting and telemedicine)
- Build capacity for guideline adoption and monitoring

community-level data collection and cancer registries continues to impede contextually valid guideline formation and tracking of intervention effectiveness[5]. Furthermore, structural inequities (including funding disparities, regulatory hurdles and linguistic exclusion) act as barriers to the meaningful participation of LMIC investigators and patients in the knowledge-generation process[2].

Beyond institutional structures, biases and historical legacies remain deeply embedded within global research and policy mechanisms, and perpetuate underrepresentation[2]. For example, the persistent privileging of English-language journals, Eurocentric research agendas and forms of evidence most accessible to well-resourced academic institutions fundamentally restrict the utility of global evidence for policymaking in diverse contexts[2]. More than just the predominance of English, the lack of access to journal articles – due to paywalls and subscription barriers – remains a major hurdle for many LMIC researchers and institutions, which further widens the gap in knowledge dissemination and policymaking. These structural barriers are compounded by deeper epistemological biases embedded in the global research enterprise.

Advancing epistemic justice in global cancer control requires targeted and concrete reforms that transcend generic equity initiatives, and instead prioritize mechanisms that recognize, generate and institutionalize diverse knowledge. To this end, several policy recommendations emerge (Box 1)

Prioritize LMIC-led research and north–south co-leadership

Cancer research funders and global policy bodies should deliberately prioritize research agendas, funding calls and partnerships led by LMIC investigators[6]. Calls for proposals must be tailored to address region-specific and disease-specific gaps, with application criteria that value contextual relevance and community engagement alongside methodological rigour[6].

Further, international collaborations should ensure true co-leadership, with equal decision-making power, authorship opportunities and resource allocation for global partners[7]. Research conducted in LMIC settings should be held to the same ethical and scientific criteria as non-LMIC research. Effective collaboration and team science demand true co-leadership, which recognizes that LMIC cancer collaborations are not acts of philanthropy or external service: they are legitimate academic research and should operate under the same principles of rigour, transparency and shared ownership.

However, mandated LMIC co-leadership can be a double-edged sword. Although such policies may create new opportunities, they risk leading to performative partnerships or inadvertently placing additional burdens on underresourced institutions and individuals, especially amid immense clinical demands. Many LMIC colleagues value these leadership roles and contribute immensely, but additional responsibilities require support. HIC institutions have a crucial role in alleviating administrative workload and in facilitating access to funding, but the extra work may be necessary given the centrality of LMIC practitioners' lived expertise in shaping relevant research questions and interventions.

Modernize funding, publication and training structures

Traditional funding mechanisms often exclude LMIC researchers owing to administrative and logistical demands. Reforming these systems should involve streamlined application processes, flexible grant requirements and capacity-building support[8]. Specifically, 'streamlined application processes' should mean simplifying paperwork, expanding eligibility, enabling multiyear funding and reducing bureaucratic barriers for LMIC investigators. Diverse editorial boards are typically constituted through top-down reforms: journals should transparently publish editorial composition and actively incentivize broad regional participation through policy and recognition. Academic journals can have a crucial role by incentivizing regionally authored guidelines and research, publishing in multiple languages and employing diverse editorial boards to counter epistemic bias[9]. Recent protocols such as the Team Card provide practical frameworks for documenting team composition and epistemic diversity, to directly address bias mitigation in medical artificial intelligence (AI) governance[10]. Adopting tools such as Team Card can operationalize reflexivity and positionality disclosure, to support more equitable and transparent processes in global cancer AI research.

International training modules that explicitly address epistemic bias – both in peer review and policymaking spheres – should be standard requirements for research funders, journal editors and policymakers[2]. By raising awareness and offering practical frameworks for countering testimonial and hermeneutical exclusion, such modules can tangibly shift practice.

Move from token inclusion to sustained partnership and contextual implementation

Epistemic justice demands more than the presence of LMIC representatives on international panels; it requires sustained partnership, ongoing dialogue and locally adapted interventions[2]. To assess whether partnerships are truly sustained versus merely tokenistic, we propose concrete metrics such as the duration of collaboration, number of jointly led projects or grants, regular bidirectional exchanges and partnership evaluations. As an example, Memorial Sloan Kettering Cancer Center's Global Cancer Research and Training programme with its Nigerian partner institution, Obafemi Awolowo University Teaching Hospital, offers insights from longitudinal collaboration, although models from outside oncology (including infectious disease partnerships) may provide broader lessons[11]. Guidelines for cancer prevention and control should be developed in meaningful collaboration with local experts, inclusive of community voices, and tailored for contextual implementation on the basis of local needs and constraints[12]. Establishing national or subnational registries for understudied cancers and systematically collecting disaggregated data by geography, age, gender and socioeconomic status will improve both policy targeting and research outcomes[13].

Reform clinical trial design and evidence standards

Global cancer care standards must be reoriented away from a one-size-fits-all approach and towards the pragmatic realities of LMIC health systems and patient populations. This includes designing clinical trials that are feasible in resource-limited contexts, relaxing unnecessary exclusion criteria, and embracing innovative designs such as pragmatic and adaptive trials[6]. Embracing mixed-methods research and integrating qualitative evidence can enrich understanding of patient and provider perspectives, while allowing for the co-creation of interventions that are acceptable and effective[6]. Additionally, we strongly recommend integrating implementation science to accelerate translation of evidence into practice and encourage LMIC cancer research to actively learn from pitfalls encountered in HICs – particularly the historic tendency to remove patients' beliefs and lived experiences from research. This gap is now being addressed in newer clinical trial designs, and LMIC contexts should proactively incorporate these lessons to centre patient voices.

Incentivize knowledge translation and policy uptake

Finally, global funding bodies and national governments should incentivize the translation of research findings from LMIC-led work into policy and practice, including funding for implementation research, guideline dissemination, and capacity for monitoring and evaluation[14]. Successful programmes in task-shifting, telemedicine, decentralization of care and peer navigation – often spearheaded by LMIC innovators – should be scaled and adapted through supportive policy and financial infrastructure[14].

Future directions and research opportunities

The influence of pharmaceutical and medical device companies on research agendas in LMICs is profound and often underacknowledged. These actors should be subject to greater transparency and accountability within global cancer initiatives, to ensure their partnerships support rather than direct priority setting in ways that reinforce structural disparities. We also note there is limited direct evidence that proposed models (such as co-leadership structures) consistently improve clinical outcomes. Although these interventions advance justice principles and equity, more rigorous, longitudinal research is needed to demonstrate their effect on population health.

Building sustainable educational infrastructure, mentorship programmes and leadership pipelines is also vital for empowering underrepresented regions to generate and own their knowledge. Ethical considerations must be carefully addressed by establishing frameworks and policies that draw upon local values and cultural contexts. Cross-sectoral partnerships – including those that bridge public health, industry, governmental and patient advocacy domains – have an instrumental role in fostering innovation and inclusivity.

Patient, survivor and community advocacy groups must be central – not peripheral – to efforts advancing epistemic justice[15]. The Ating Dibdibin ('take your breast care to heart') experience of the ICanServe Foundation in the Philippines demonstrates how survivor-led initiatives can reshape health systems by addressing not only informational and structural inequities but also the moral imperative of including lived experience in programme design[15]. Through community partnerships, patient navigation and political engagement, the programme operationalizes epistemic justice by validating patient knowledge, empowering survivors as co-architects of policy, and ensuring that care models reflect local realities rather than externally imposed paradigms.

Finally, more research is needed to create participatory systems for monitoring and evaluating the effectiveness of interventions aimed at promoting epistemic justice. By exploring these themes, bringing in global exemplars and developing clear frameworks for progress, the field can continue to evolve and inspire contributions from a wide array of researchers and stakeholders.

Epistemic justice – the fair recognition of diverse ways of knowing – demands that LMIC researchers co-lead research agendas, funding bodies reform exclusionary practices, and evidence standards embrace pragmatic trial designs that are suited to resource-constrained settings. Centring lived experiences and contextual realities is both a moral imperative and a practical necessity for developing effective, equitable cancer interventions worldwide.

Milit S. Patel[1,2] ✉, **Maria Jocelyn Kara Magsanoc-Alikpala**[3,4], **Erin Jay G. Feliciano**[5,6], **Leo Anthony Celi**[7,8,9], **T. Peter Kingham**[10], **Nancy Y. Lee**[2] **& Edward Christopher Dee**[2]

[1]Department of Molecular Biosciences, The University of Texas at Austin, Austin, TX, USA. [2]Department of Radiation Oncology, Memorial Sloan Kettering Cancer Center, New York, NY, USA. [3]ICanServe Foundation, Manila, Philippines. [4]Cancer Coalition Philippines, Makati, Philippines. [5]Department of Medicine, NYC Health + Hospitals/Elmhurst, Icahn School of Medicine at Mount Sinai, New York, NY, USA. [6]School of Medicine and Public Health, Ateneo de Manila University, Pasig City, Philippines. [7]Laboratory for Computational Physiology, Massachusetts Institute of Technology, Cambridge, MA, USA. [8]Division of Pulmonary, Critical Care and Sleep Medicine, Beth Israel Deaconess Medical Center, Boston, MA, USA. [9]Department of Biostatistics, Harvard T.H. Chan School of Public Health, Boston, MA, USA. [10]Global Cancer Disparities Initiatives, Memorial Sloan Kettering Cancer Center, New York, NY, USA.

✉e-mail: militpatel@utexas.edu

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Competing interests

The authors declare no competing interests.