

EDITORIAL

A world beyond borders: rethinking global oncology in 2024

Dr Olubukola Ayodele*

Department of Medical Oncology, University Hospitals of Leicester NHS Trust, Leicester, UK

Cancer knows no borders. It cuts across continents, cultures, and socioeconomic divides, leaving behind a trail of devastation that transcends national boundaries. Yet, the fight against cancer remains fragmented, with disparities in access to quality care and research mirroring the inequalities of our world [1]. This is the stark reality of global oncology (GO): a world where access to lifesaving treatments and care is a privilege, not a right.

GO is a term that means different things to different people. GO as defined by the American Society of Clinical Oncology (ASCO) academic GO task force is collaboratively addressing disparities and differences in cancer prevention, care, research, education, and the disease's social and human impact around the world [2].

In 2024, we stand at a crossroads in GO. Breakthroughs in immunotherapy, precision medicine, and early detection offer glimmering hope, yet millions still lack access to these life-saving advancements [3]. The COVID-19 pandemic further exposed these vulnerabilities, highlighting the urgent need for a more equitable and collaborative approach [4].

The disparities are staggering with approximately 70% of cancer deaths occurring in low- and middle-income countries (LMICs), yet, LMICs have less than 5% of global health care resources [5], with only one in five LMICs having the necessary data to drive cancer policy [6]. In LMICs, cancer diagnosis often occurs late, treatment options are limited leading to dismal survival rates. The lack of infrastructure, qualified healthcare personnel, and essential equipment leaves patients navigating a labyrinth of challenges [7]. The financial burden is immense, pushing families into poverty and forcing them to choose between basic needs and lifesaving therapies. Meanwhile, wealthier nations revel in the fruits of innovative research, boasting personalized treatments and longer lifespans. This dichotomy is not only morally reprehensible but also strategically short-sighted. Most of the increase in the global cancer burden in the next 50 years will come from LMICs (400% in low-income countries, 168% in middle-income countries and 53% in high-income countries [HICs]) due to rising population, increasing life expectancy, growing urbanization and lifestyle changes [8]. The lack of global cancer control is a threat to global health security.

This is not just a moral imperative, but a strategic one. Silos in research and care hinder progress, leading to duplicative efforts and missed opportunities. We need to tear down these walls and foster a global network of knowledge exchange, where data flows freely and innovations are shared across borders [9].

Call to action key areas

Bridging the research gap

Invest in collaborative research initiatives: Cancer research networks are essential in mitigating cancer health disparities. These networks support research partnerships between high-income and low-income countries, focusing on locally relevant cancers and addressing resource limitations. Researchers have named eight criteria as being important for a mutually rewarding collaboration: 'opportunities for active involvement in cutting-edge/interesting science; effective leadership; competence of potential partners in good scientific practice; capacity building; respect for the needs, interests and agendas of partners; opportunities for discussion and disagreement; trust and confidence; and justice and fairness in collaboration' [10]. Often, LMIC researchers are merely implementers of the research with marginal involvements in its design. Empowering local researchers by investing in training programs and infrastructure development to build a strong research workforce in resource-limited settings is cardinal. Successful examples of these collaborations include the African Research Group for Oncology (ARGO) (<https://www.argo-research.org/>), the NCG of India (<https://tmc.gov.in/ncg>), the African Organisation for Research and Training in Cancer (<https://aortic-africa.org/>) and the Research for Health in Conflict Middle East and North Africa (R4HC MENA) (<https://r4hc-mena.org/>).

Promote data sharing and open access: Cancer clinical trials of investigational new drugs remain disproportionately concentrated in HICs, align poorly with the global burden of cancer, and are focused on interventions that provide small absolute gains to highly select groups of patients [11]. Racial and ethnic minority populations are under-represented in HIC cancer trials, further reducing generalizability to other regions [12]. It is imperative to break down barriers to data access, ensuring equitable

participation in clinical trials and fostering the development of contextually relevant interventions.

Establishing cancer data and registries: National and subnational cancer data are a mandatory requirement for assessing the magnitude of cancer burden and an essential yardstick to evaluate efficacy or otherwise of any intervention in primary, secondary, or tertiary care. Site-specific cancer incidence, mortality, and stage are poorly characterized or absent in many LMICs [13], with only one in five countries able to report cancer data of sufficient quality to determine incidence estimates [14]. Creating reliable data sources such as nationally representative population-based cancer registries (PBCRs) should be prioritized by all countries to guide their cancer-control plans and research priorities. In addition, because many LMICs do not have existing cancer registries, they represent a fertile ground for innovation through application of new digital tools such as cloud-based solutions, electronic data capture, artificial intelligence, and machine learning tools for quality control, new methods of data linking and engaging front-line professionals and patients in cancer registration processes.

Access and equity in cancer care

Strengthen primary care systems: Early detection and prevention are critical. Investing in robust primary care systems to ensure early diagnosis and timely referrals for treatment is crucial. This requires various measures, such as expanding cancer screening initiatives in remote areas, improving diagnostic tools and treatments, providing practical assistance to ensure adherence to treatment, and setting up effective referral systems for specialised care.

Address social and economic barriers: Tackling disparities in access related to poverty, gender, and geographical location is paramount. Implementing social support programs and flexible treatment schedules to ensure everyone can access care can be instrumental in reducing these disparities.

Expand access to essential medicines and technologies: The exorbitant cost of cancer drugs remains a major barrier to access. Ensuring affordable availability of life-saving cancer drugs and diagnostic tools, particularly in LMICs where the cost of cancer care is often out of pocket. Governments and pharmaceutical companies must work together to develop affordable treatment options and ensure equitable distribution, through innovative financing mechanisms and price transparency initiatives. Financial navigators are essential in the cancer care pathway.

Funding allocation for GO remains tragically inadequate. Philanthropy and private ventures, while commendable, cannot shoulder the entire burden. Governments, both nationally and internationally, must prioritize cancer research and treatment, channelling resources to initiatives that bridge the equity gap.

Empowering patients and communities

Promote patient education and awareness: Cancer stigma involves fear, shame, and embarrassment of cancer diagnoses. Empowering patients with knowledge about their disease and treatment options, fostering informed decision-making and active engagement in their care eventually leads to better outcomes. Public awareness campaigns and accessible screening programs can help detect cancer early when treatment is most effective. Investing in education and dispelling myths around cancer can empower individuals to take charge of their health and seek timely medical attention.

Patient advocacy groups: Patient advocacy organizations play a critical role in providing peer support, raising awareness, reducing stigma, educating the public, raising funds, influencing policy, and impacting national cancer research agendas by bringing the public's concerns about cancer to decision makers and the medical community. We must encourage the formation and growth of patient advocacy groups, thereby providing a platform for voices to be heard and shaping policy agendas.

Harness the power of technology: Utilizing digital platforms to connect patients with resources, support groups, and healthcare professionals, bridging geographical barriers and fostering social connection is what GO entails.

Some inspiring examples of organizations working toward GO equity include 1) The Union for International Cancer Control (UICC): UICC is a global non-profit organization dedicated to reducing the worldwide cancer burden. They work with governments, NGOs, and healthcare professionals to improve cancer prevention, early detection, and treatment, particularly in LMICs [15]. UICC and the International Agency for Research on Cancer (IARC) have implemented the Global Initiative for Cancer Registry Development and the Global Cancer Observatory; 2) The World Health Organization (WHO): The WHO's Global Initiative for Childhood Cancer (GICC) aims to improve access to affordable and effective treatment for childhood cancer in LMICs. They provide guidelines, training programs, and support for countries to develop and implement cancer control plans [16]; 3) ASCO: ASCO's international activities program works to improve cancer care in LMICs through education, research, and advocacy. They offer training programs for healthcare professionals, support research collaborations, and advocate for policies that improve access to cancer care [2].

The fight against cancer cannot be won in isolation. It demands a united front, a global collaboration that transcends borders and unites diverse communities in a shared purpose. By investing in research, improving access to care, and empowering patients, we can create a world where everyone, regardless of their background or location, has a fair chance to beat cancer.

This is not just an editorial; it is a call to action. Let us rewrite the narrative of GO, forging a future where hope knows no borders, and every life has the potential to thrive.

References

1. Farmer P, Frenk J, Knaul FM, Shulman LN, Alleyne G, Armstrong L, et al. Expansion of cancer care and control in countries of low and middle income: a call to action. *Lancet* 2010; 376(9747): 1186–93. doi: 10.1016/S0140-6736(10)61152-X
2. Gralow JR, Asirwa FC, Bhatt AS, Boursion MT, Chu Q, Eniu AE, et al. Recommendations from the ASCO Academic Global Oncology Task Force. *JCO Glob Oncol* 2020; 6: 1666–73. doi: 10.1200/GO.20.00497
3. LeBaron VT. Global cancer disparities and the need for new initiatives. *Oncol Nurs Forum* 2016; 43(1): 118–20. doi: 10.1188/16.ONF.118-120
4. Desai A, Duma N, Lopes G. COVID-19 and global oncology: a year in review. *JCO Glob Oncol* 2021; 7: 797–801. doi: 10.1200/GO.21.00078
5. Bray F, Ferlay J, Soerjomataram I, Siegel RL, Torre LA, Jemal A. Global cancer statistics 2018: GLOBOCAN estimates of incidence and mortality worldwide for 36 cancers in 185 countries. *CA Cancer J Clin* 2018; 68(6): 394–424. doi: 10.3322/caac.21492
6. Knaul FM, Arreola-Ornelas H, Rodriguez NM, Méndez-Carniado O, Kwete XJ, Puentes-Rosas E, et al. Avoidable mortality: the core of the global cancer divide. *J Glob Oncol* 2018; 4: 1–12. doi: 10.1200/JGO.17.00190
7. Dos-Santos-Silva I, Gupta S, Orem J, Shulman LN. Global disparities in access to cancer care. *Commun Med* 2022; 2: 31. doi: 10.1038/s43856-022-00097-5
8. Soerjomataram I, Bray F. Planning for tomorrow: global cancer incidence and the role of prevention 2020–2070. *Nat Rev Clin Oncol* 2021; 18(10): 663–72. doi: 10.1038/s41571-021-00514-z
9. Blanchard C, Lubuzo B, Asirwa FC, Dlamini X, Msadabwe-Chikuni SC, Mwachiro M, et al. Multisector collaborations and global oncology: the only way forward. *JCO Glob Oncol* 2021; 7: 153–61. doi: 10.1200/GO.20.00492
10. Parker M, Kingori P. Good and bad research collaborations: researchers' views on science and ethics in global health research. *PLoS One* 2016; 11(10): e0163579. doi: 10.1371/journal.pone.0163579
11. Wells JC, Sharma S, Del Paggio JC, Hopman WM, Gyawali B, Mukherji D, et al. An analysis of contemporary oncology randomized clinical trials from low/middle-income vs high-income countries. *JAMA Oncol* 2021; 7(3): 379–85. doi: 10.1001/jamaoncol.2020.7478
12. Nazha B, Mishra M, Pentz R, Owonikoko TK. Enrollment of racial minorities in clinical trials: old problem assumes new urgency in the age of immunotherapy. *Am Soc Clin Oncol* 2019; 39: 3–10. doi: 10.1200/EDBK_100021
13. Siddiqui AH, Zafar SN. Global availability of cancer registry data. *J Glob Oncol* 2018; 4: 1–3. doi: 10.1200/JGO.18.00116
14. Ferlay J, Colombet M, Soerjomataram I, Mathers C, Parkin DM, Piñeros M, et al. Estimating the global cancer incidence and mortality in 2018: GLOBOCAN sources and methods. *Int J Cancer* 2019; 144(8): 1941–53. doi: 10.1002/ijc.31937
15. Union for International Cancer Control. Available from: <https://www.uicc.org/who-we-are/about-uicc/what-cancer-control> [cited 25 January 2024].
16. World Health Organization (WHO). Available from: <https://www.who.int/initiatives/the-global-initiative-for-childhood-cancer> [cited 25 January 2024].

*Dr Olubukola Ayodele

Department of Medical Oncology
University Hospitals of Leicester NHS Trust
Leicester, UK
Email: olubukola.ayodele@uhl-tr.nhs.uk