

The burgeoning role of global health diplomacy to alleviate suffering of cancer patients in low- and middle-income countries

Melissa Adomako, Alaei Kamiar, Abdulla Alshaikh, Lyndsay S. Baines, Desiree Benson, Douglas W. Bettcher, Baljit Cheema, Lex Corijn, Evan Fountain, Bartosz G. Gdaniec, Elan Garonzik, Mary Harney, Rahul M. Jindal*, Kate Jones, David Kerr, Deena Mehjabeen, Nick P. Vahid, Emem Okonetuk, Nathalia Pompeu, Bongekile Skosana, Soo Tan, Karabo Thokwane and Tyson Welzel

*Corresponding author: Tel: +301-295-4331; E-mail: jindalr@msn.com; Twitter handle: DrRahulMJindal1

Received 11 November 2019; revised 5 January 2020; editorial decision 10 January 2020; accepted 8 January 2020

The science of global health diplomacy (GHD) consists of cross-disciplinary, multistakeholder credentials comprised of national security, public health, international affairs, management, law, economics and trade policy. GHD is well placed to bring about better and improved multilateral stakeholder leverage and outcomes in the prevention and control of cancer. It is important to create an evidence base that provides clear and specific guidance for health practitioners in low- and middle-income countries (LMICs) through involvement of all stakeholders. GHD can assist LMICs to negotiate across multilateral stakeholders to integrate prevention, treatment and palliative care of cancer into their commercial and trade policies.

Keywords: global health diplomacy, cancer policy and governance, low- and middle-income countries, high-income countries, health attachés, adverse effects of climate change, public–private partnerships

This commentary arose from deliberations at the summer school on ‘Global Health Diplomacy’ at the University of Oxford, in 2019.¹

Global health diplomacy (GHD) is a cross-disciplinary (national security, public health, international affairs, management, law, economics and trade policy), multilevel (government and non-government) and multistakeholder (civilians, community groups, non-governmental organizations [NGOs]) negotiation process that shapes and manages the global environment for health.² The subsequent evidence base, interventions, monitoring and outcomes provide a foundation for legislation and global governance that has the potential to place cancer prevention and treatment strategies higher up on the World Health Organization (WHO) agenda. Hence there is a need to build skills and capacity in cross-cultural competency for GHD in the field of cancer care.

While traditional diplomats require additional engagement of health experts in an increasingly complex global health arena, GHD has pre-existing negotiating capacity with health policymakers of low- and middle-income countries (LMICs) to effectively sustain and manage health negotiations across multilateral stakeholders. These may include NGOs and non-state actors who play a crucial role in lobbying governments, generating new norms, shaping health policy and identifying and engaging powerful institutions, interests and ideological positions within different levels of government. For example, the tobacco, alcohol,

food and soft drinks industries may undermine research findings and put profits over public health.

An important development in GHD is accredited health attachés who represent and link public health institutions in one government with their counterparts in another government.³ These officials have formal expertise to collect, analyse and act on information concerning health in a foreign country and cultivate relationships between public health and foreign affairs stakeholders and institutions.⁴ Furthermore, specially trained experts in GHD can understand that the epidemiology and needs of cancer planning in low- vs middle-income countries—for example, the incidence and treatment strategies in China and Uganda—may be completely different due to their economic and political clout. Accredited health attachés may have a better understanding and insights into these differences and guide implementation of policies and flow of funds from high-income countries (HICs) to LMICs.^{2,3}

GHD can help address the incongruence in cancer care between LMICs and HICs by utilizing the diplomatic negotiating process to develop their own affordable and effective diagnosis and intervention. This can be achieved by the increased availability of affordable drugs, upgrading of imaging equipment and utilization of task shifting to operate such devices, along with capacity building in palliative care using existing infrastructure and upgrading of existing resources. However, cancer often

requires access to specialized care centres and chemotherapy, commodities that are in short supply in LMICs. We suggest pairing programmes to link cancer treatment facilities in HICs with those in LMICs that have a track record of effectiveness.⁵ A collaborative of medical and economic scientists⁶ suggested an essential package of cost-effective measures for LMICs: prevention of tobacco-related cancer and virus-related liver and cervical cancers; diagnosis and treatment of early breast cancer, cervical cancer and selected childhood cancers; and widespread availability of palliative care, including opioids. They suggested that interventions would cost an additional US\$20 billion/y worldwide, constituting 3% of total public spending on health in LMICs. With implementation of an appropriately tailored package, most countries could substantially reduce suffering and premature death from cancer before 2030.

The ability of governments to develop an effective health and fiscal policy aimed at improving lifestyle factors and preventing non-communicable diseases is directly correlated with the effectiveness of their negotiating capacity and building a national consensus. Traditionally, healthcare workers from LMICs do not have an opportunity to participate in international medical conclaves because of economic and visa requirements, which negatively impacts their ability to create multilateral networks needed to inform health policy. There has been a welcome change in setting up satellite conferences in LMICs, such as one in 2020 in India, under the umbrella of the European Society for Medical Oncology. These satellite conferences will be led by international and local key opinion leaders and will lead to increased collaboration between HICs and LMICs.⁷ Such events create opportunities for collaboration led by principal players in an essential alliance to achieve population health improvements, including the European School of Oncology, European Cancer Organisation, American Cancer Society and the WHO.

GHD is well placed to bring about optimal multilateral stakeholder leverage and outcomes in the prevention and control of cancer, one of the main non-communicable diseases which kill >2.2 million people every year in the WHO Eastern Mediterranean Region, with cancer being responsible for 400 000 of these deaths, and this continues to increase due to unhealthy lifestyles.⁸ Rather than impose cancer planning solutions devised in HICs on LMICs, it is important to create an evidence base for health practitioners in LMICs through focused primary research, which involves all stakeholders and impacts the broader infrastructural challenges to healthcare aimed at global cancer policy and governance.¹ However, the incidence of cancer is predicted to double by 2035, with the greatest increase expected in LMICs due to an ageing population, risk factors such as tobacco use, lack of screening and affordability of medications.⁹ The urgency of the situation means that we cannot afford to procrastinate, that much is clear. The time to take concerted action against cancer in LMICs has come. No single organization or NGO can address the looming cancer epidemic alone, so we must combine our resources and skills to negotiate access to the necessary expertise to support impactful cancer planning in LMICs.

Although a nascent field, GHD, with its multilateral collaboration across health, education, transport, trade and commerce, planning and development, security services (e.g. access to morphine) and foreign affairs, can facilitate improved cancer control. The action plan should include the following: strengthen

health systems to address cancer, including the integration of cancer prevention and intervention into primary care; support for low-cost, sustainable prevention programmes, including standardized curricula and digital training programmes; development of equitable cancer treatment through affordable biosimilars; integrating palliative care into treatment regimens and building support for advocacy organizations to raise awareness of cancer via media campaigns and the formation of cancer societies.¹⁰ Achieving and sustaining a collective action plan for improved outcomes for cancer can only be realized by the generation and implementation of comprehensive negotiation strategies aimed at incorporating the principles of prevention, protection, promotion and accountability in a culturally sensitive manner.¹¹

GHD should be ready to tackle the great societal issues before us, such as the adverse effects of climate change,¹² the tobacco and vaping industry,¹³ increased taxes on the sugar industry¹³ and antimicrobial resistance.¹⁴ These issues will require concerted effort, national and international policy and implementation, and enforcement of regulations with the involvement of the World Trade Organization, WHO, International Monetary Fund and global multinational companies. Global health diplomats should also learn to navigate the rapidly changing preferences of young people and the influence of social media—it may be very difficult to end the epidemic of nicotine addiction among kids, as witnessed by the twists and turns of the e-cigarette and vaping controversy.¹⁵

It is now recognized that healthcare providers in HICs can also learn from colleagues in LMICs. GHD can facilitate effective and evidence-based healthcare practices, such as the model of Aravind Eye Hospitals in India. By concentrating on efficiency and hygiene, differences have been eliminated between the surgeries done for paid and non-paid patients.^{16,17} We propose that GHD include the study of public-private partnerships, which can provide specialized services such as dialysis, kidney transplantation and corneal transplantation in LMICs. Jindal et al. have shown that the public-private partnership strategy is a win-win for both the USA and the host nation, and can be adopted by other US humanitarian agencies with minimal costs to taxpayers.^{18–20}

The international response to the Ebola outbreak in 2014 was a clear illustration of the need for GHD.²¹ Equally important was the review of the WHO during the outbreak that found the 5-month delay in the declaration of a public health emergency of international concern and the lack of coordination among WHO member states regarding travel bans hampered rapid and effective response by the global community and reflected the importance of GHD in critical emergency health situations.¹⁰

In conclusion, GHD can assist LMICs in negotiating across multilateral stakeholders to integrate cancer care into their commercial and trade policies. This will lead to collaborations with multilateral and diverse stakeholders to alleviate the suffering of cancer patients. However, more must be done to raise the profile of GHD by delivering structured training courses for diplomats, clinicians, politicians, policymakers and security forces.

Authors' contributions: All the authors contributed equally to the concept, drafting and editing of the manuscript. All authors read and approved the final manuscript. RMJ, LSB and DK are the guarantors of the paper.

Acknowledgements: This report is the result of deliberations at the Global Health Diplomacy summer school at the University of Oxford, July 2019. The opinions and assertions contained herein are those of the authors and are not to be construed as official or reflecting the views of the Department of Defense, the Uniformed Services University of Health Sciences or any other agency of the US government. No financial conflict of interest exists.

Funding: None.

Competing interests: None declared.

Ethical approval: None required.

References

- 1 Global Health Diplomacy, Department for Continuing Education, University of Oxford, 24 June–23 August 2019. <https://www.conted.ox.ac.uk/courses/global-health-diplomacy> [accessed 4 January 2020].
- 2 Kickbusch I, Silberschmidt G, Buss P. Global health diplomacy: the need for new perspectives, strategic approaches and skills in global health. *Bull World Health Org.* 2007;85(3):243–4.
- 3 Brown MDM, Tim K, Shapiro CN, Kolker J, Novotny TE. Bridging public health and foreign affairs: The tradecraft of global health diplomacy and the role of health attachés. *Sci Diplomacy.* 2014;3(3):1–12.
- 4 Brown M. Intersection of diplomacy and public health: The role of health attaches in the United States government's global engagement. In: 141st APHA Annual Meeting. November 2–November 6, 2013; p. 2013 APHA;2013.
- 5 Ribeiro RC, Antillon F, Pedrosa F, Pui CH. Global pediatric oncology: lessons from partnerships between high-income countries and low-to mid-income countries. *J Clin Oncol.* 2016;34(1):53–61.
- 6 Gelband H, Sankaranarayanan R, Gauvreau CL, et al. Costs, affordability, and feasibility of an essential package of cancer control interventions in low-income and middle-income countries: key messages from Disease Control Priorities, 3rd edition. *Lancet.* 2016;387(10033):2133–44.
- 7 European Society for Medical Oncology summit in India. <https://www.esmo.org/Conferences/ESMO-Summit-India-2020> [accessed 4 January 2020].
- 8 World Health Organization. WHO is calling on collective and individuals to take action to reduce the burden of cancer. <http://www.emro.who.int/noncommunicable-diseases/highlights/reducing-the-burden-of-cancer.html> [accessed 4 January 2020].
- 9 Prager GW, Braga S, Bystricky B, et al. Global cancer control: responding to the growing burden, rising costs and inequalities in access. *ESMO Open.* 2018;3(2):e000285.
- 10 Brown MD, Bergmann JN, Novotny TE, Mackey TK. Applied global health diplomacy: profile of health diplomats accredited to the United States and foreign governments. *Global Health.* 2018;14(1):2.
- 11 Jindal RM. Cultural sensitivity in deployed US medical personnel. *JAMA Surg.* 2018;153(5):497–498.
- 12 Editorial. Health and climate change: making the link matter. *Lancet.* 2019;394(10211):1780.
- 13 Thornton J. The UK has introduced a sugar tax, but will it work? <https://www.lshtm.ac.uk/research/research-action/features/uk-sugar-tax-will-it-work> [accessed 5 January 2020].
- 14 Ghafur A. This is how India is fighting antimicrobial resistance. <https://www.weforum.org/agenda/2018/03/india-s-war-on-antimicrobial-resistance> [accessed 5 January 2020].
- 15 Gottlieb S. The FDA got it partially right on e-cigs. Here's what else needs to be done. *Washington Post*, 4 January 2020. <https://www.washingtonpost.com/opinions/2020/01/04/fda-got-it-partially-right-e-cigs-heres-what-else-needs-be-done/> [accessed 5 January 2020].
- 16 Sabatino ME, Alkire BC, Corley J. Financial investment in global surgery—codevelopment as an accretive evolution of the field. *JAMA Surg.* 2019;154(6):475–6.
- 17 Ydstie J. India eye care center finds middle way to capitalism. <https://www.npr.org/2011/11/29/142526263/india-eye-care-center-finds-middle-way-to-capitalism/> [accessed 4 January 2020].
- 18 Jindal RM, Patel TG, Waller S. Public-private partnership model to provide humanitarian services in developing countries. *J Am Coll Surg.* 2017;224(5):988–93.
- 19 Jindal RM, Waller S, Sugrim S, Pasternak J. Micro-economic benefit of corneal transplantation via public private partnership in Guyana. *World J Surg.* 2018;42(11):3482–92.
- 20 Guy-Frank CJ, Persaud K, Butsenko D, Jindal RM, Guy SR. Developing a sustainable renal transplant program in low- and middle-income countries: outcome, challenges, and solutions. *World J Surg.* 2019;43:2658–65.
- 21 Maurice J. Expert panel slams WHO's poor showing against Ebola. *Lancet.* 2015;386(9990):E1.