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The necessity of diplomacy in brain health

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Maintaining brain health is arguably one of the greatest global health challenges of the 21st century, as few other issues will have a similar effect on humanity. Given the breadth of factors affecting brain health, we believe that large-scale diplomacy is necessary. Diplomacy is traditionally described as a formal exchange between countries, such as trade talks or negotiations to avoid armed conflict, carried out by formal representatives of nations (eg, emissaries and ambassadors). Yet, the field of diplomacy is far more nuanced, and the way in which diplomacy affects humanity, including health, is informed by a broader understanding of the topic. Large-scale diplomatic activities might include efforts to coordinate research across nations or the establishment of treaties (for example, to reduce air pollution). Activities of this type help to coordinate international projects in research, advocacy, clinical care, consumer participation, innovation, and public health.

At an individual level, threats to brain health include neurodevelopmental and neurodegenerative disorders, trauma (physical and psychological), unsafe living or working conditions, poor diet, environmental risk factors, and inadequate access to health care, as well as chronic and often multimorbid conditions, such as hypertension and diabetes. At the community level, risk factors include social isolation, low educational attainment, inconsistent health-care coverage, low socioeconomic status, violent crime, and contaminants and air pollution. At a macro level, the global challenges include climate change, population ageing, rising economic inequality, rural-to-urban migration and megacities with disrupted social safety nets, armed conflicts, mass migration, and the mass digitalisation of life.

We propose a brain-health diplomacy model to transcend disciplinary boundaries, and mobilise resources at sufficient scale to improve brain health. This model builds on several

theoretical approaches, including health diplomacy, science diplomacy, innovation diplomacy, and convergence science.¹⁻³ Brain health diplomacy is aimed at tackling threats to brain health throughout the life course, but in particular in later life; training and connecting the next generation of leaders in brain health; collaborating in expanding prevention and treatment interventions; sharing knowledge; and engaging in advocacy.

The Global Brain Health Institute (GBHI) is an exemplar of an organisation actioning brain health diplomacy (panel) through efforts to train a cross-cultural, interdisciplinary global community of emergent brain health leaders.⁴ Funded by the Atlantic Philanthropies and based at the University of California San Francisco, USA and Trinity College Dublin, Ireland, the GBHI works to reduce risk factors to brain health. The GBHI seeks to train brain-health leaders dedicated to advancing equity in brain health through the Atlantic Fellows for Equity in Brain Health programme. The Atlantic Fellows work on a diverse array of disciplines including medicine, law, business, social science, journalism, and the arts. Since the programme's founding in 2015, 117 fellows have been trained from 37 countries. The interconnected disciplines span research, policymaking, medical care, and capacity building. The programme has funded 65 pilot projects (totalling US\$1.6 million), implemented in 24 countries, such as the one in Peru to characterise the cognitive health and functional abilities of illiterate older people and inform national policy, and another in South Africa to estimate the potentially preventable burden of dementia. After their GBHI experience, 27 Atlantic Fellows have been awarded nearly \$17 million to implement programmes, fund projects, and do research in their home regions. Future brain-health institutes affiliated with GBHI will support and expand these efforts, such as a centre at Chile's Universidad Adolfo Ibáñez, to be launched in 2021. Education systems could reconfigure themselves to provide brain-health training for non-health professionals. A multi-year degree or fellowship focused on brain health might not always be the most affordable or suitable approach for all professionals, but a week-long certificate course can be easily delivered and scaled to meet demand. A similar approach has been proposed to combat global pandemics such as COVID-19.⁵

Brain health diplomacy is a global call to action with a goal of motivating others to join efforts to overcome the systemic challenges of brain health and urgently address growing unmet needs. The goal is to increase coordination in brain health across countries, disciplines, and sectors that are already working on these issues, with a view to accelerating opportunities to improve brain health outcomes.

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Panel: Brain health diplomacy**Aims**

- To influence the global policy environment for brain health and bridge different disciplines to improve brain health around the globe
- To protect the world's populations from threats to brain health throughout the life course particularly in later life
- To collaborate in expanding prevention and treatment interventions

Foundational disciplines

Health diplomacy; technology diplomacy; innovation diplomacy; science diplomacy; convergence science

Brain health threats to be addressed**Micro level—individual**

Trauma, unsafe living and working conditions, poor diet, inadequate access to health care, lack of broadly available care for mental illness, environmental exposures, and inadequate treatment of chronic often multimorbid conditions such as hypertension and diabetes

Meso level—community

Social isolation, low educational attainment, inconsistent health care coverage, low socioeconomic status, lack of economic opportunities, violent crime, chemical contaminants, and air pollution

Macro level—national and transnational

Climate change, population ageing, rising economic inequality, ongoing rural–urban migration and megacities with disrupted social safety nets, large-scale armed conflicts and resulting mass migration, and the mass digitalisation of life

Exemplars of brain health diplomacy

- Alzheimer's Disease International
- European Brain Council
- Global Council on Brain Health