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T7 Task Force Global health

POLICY BRIEF

RESEARCH, EVIDENCE AND LEARNING – THE NEED FOR A GLOBAL INFRASTRUCTURE

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Abstract

Covid-19 has put the lives of millions of people at risk, creating uncertainties and heightening existing fragilities, particularly where social inequities and inequalities are most pronounced. Global health requires equitable, inclusive responses, informed by research, data and evidence. Existing global health research infrastructure is afflicted by weak institutional mechanisms and perpetuation of evidence hierarchies and silos and excludes and devalues different knowledges and lived experience. Major challenges include unevenness of financial support to global health research, evidence generation, and learning, policy engagement with too narrow a range of evidence; and insufficient investment in infrastructure for promoting international learning and exchange of health-related knowledge, evidence and data. Recommendations for action by G7 members to address these challenges include: (1) a jointly negotiated quota of 0.5% of G7 members' national GDP for R&D funds administered through multilateral channels; (2) establishing a centralized health research clearing-house with joint governance for communication and action; (3) establishment of Pandemic Centres of Excellence in all world regions providing collaborative, regional mechanisms for medical research, social science research relevant to health, and vaccine production, distribution and delivery; (4) support to collaborative research networks that represent different forms of knowledge and experience, and use a diversity of research approaches and methodologies; and (5) investment in adaptive, agile national and regional systems for monitoring, early warning, and crisis preparedness, underpinned by open data and digital utilities. The paper also offers practical suggestions for implementing these recommendations in the short, mid and longer term, including G7 members working jointly with the UN, G20 and other international actors to join a global call for a 2023-2032 UN Decade for Health Research.

Challenges

Covid-19 has had the greatest impact where socioeconomic inequities and inequalities have been most pronounced, and where communities and citizens have had the weakest capacities to respond.[1] Global health requires equitable, inclusive responses beyond system rivalries, informed by research, evidence and learning. However, existing global health research infrastructure is afflicted by weak institutional mechanisms, and perpetuation of power imbalances and evidence hierarchies and silos. It excludes and devalues different knowledges and lived experience. Low and Middle Income country (LMIC) researchers have less voice and influence than their counterparts in G7 countries.

1.   **Unevenness of financial support to global health research, evidence generation, and learning[2]**. R&D spending overall is typically around 2 to 3% of GDP in the global North. With R&D spend at 0.5% of GDP in the global South (in Caribbean and Central Asia 0.1%), the situation is compounded further by GDP being only 10% of the global North. The largest contributions are made by North America (27.4%), EU (18.7%), and East and Southeast Asia (40.4%). Research expenditure in Latin American countries account for a total of 2.7% of funds spent worldwide; Sub-Saharan Africa has lowest share with 0.4% (UNESCO, 2021). The proportion of funding from individual G7 nations to multilaterals compared to their investments in national health research is too low to provide a strong foundation for international cooperation and a robust, reliable shared evidence base. G7 nations also focus their research funding narrowly on health issues from a medical science perspective, with less invested in interdisciplinary, intersectoral research on interactions between health and economic issues, livelihoods, and wider social and political questions.

2.   **Policy engagement with too narrow a range of evidence.** Failure of the global North to learn from previous epidemics indicates continued dominance of medical sciences over social sciences (Leach et al, 2020; Monaghan, 2004). Evidence generated in G7 countries takes precedence over other contexts; research findings rarely reflect a diversity of complementary perspectives. Global debates, policy and practice are insufficiently grounded in lived experiences of disease response and preparation[3]. The voices and perspectives of people who are poor and marginalized are often ignored[4]. Dealing with uncertain futures is a global reality.[5] Robust, sustainable responses require diverse, plural perspectives sourced from across a currently fragmented knowledge and evidence landscape[6]. Much national data and evidence remains inaccessible to a global research community because of the lack of open science platforms or a global IP framework utilizing digital advances.

3.   **Insufficient investment in infrastructure for promoting international learning and exchange of health-related knowledge, evidence and data.** Learning and scientific advances constrained by disciplinary silos, and limited engagement with cross-cutting evidence, promotes blinkered policy and decision-making, and echo-chambers of thinking and practice.[7] Current evidence sharing mechanisms for scientific evidence and developing intellectual insight, innovation and learning processes promote narrow adherence to the status quo, rather than the disruptive thinking, policies and practices needed for progress in global health. Due to limited participation and informed consent of communities and local actors, solutions are often inaccessible to those that supported their development and who need to apply and learn from the findings.

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Proposals

1) G7 members should increase flows of funding especially to multilateral research funds with centralized coordination functions, to support a less fragmented research and evidence infrastructure. There is currently no agreed instrument for this purpose; we recommend **a jointly negotiated quota of 0.5% of G7 members' national GDP for overall R&D funds administered through multilateral channels**. Specific allocations within this multilateral envelope will be required for global health-related research and other development research challenges[8]. Global South national funding to science is very limited. LMICs have insufficient financial leverage over multilateral funds to co-determine a research agenda according to their own priorities (United Nations, 2017). A financial re-balancing, which includes mobilization of investment from the private sector, will support greater connectivity between generators and users of research (including integration and coordination of contextualized knowledge from the bottom-up), working multilaterally, and regionally. Research support is still needed for pharmaceuticals, vaccines and diagnostics, but also for social science research on governance and political challenges, issues of trust, institutional capabilities, human wellbeing, and planetary health. These dimensions go beyond health but intersect, and significantly augment, the reach and impact of health advances.

2) G7 members should complement increased health-related research funding flows to multilateral organisations with support for strong evidence and data coordination functions. We recommend G7 investing in a **centralized health research clearing-house** with joint governance for communication and action. It should combine monitoring data and analysis, and support early warning systems, including for future pandemics. Strong mechanisms will be required to overcome unnecessary hierarchies and bureaucracies, and incentives to ensure consistent, transparent flow of data and analysis in all directions - otherwise upward sharing of data may be compromised.

3) There is a critical need for research, evidence and learning infrastructure located in regions and contexts that are experiencing global health challenges first-hand, with adequately funded research priorities and agendas developed and led within those contexts. We recommend G7 support, in collaboration with the G20, for the establishment of **Pandemic Centres of Excellence**[9] in all world regions to help maintain links between local contexts and a centralized research clearing-house. These Centres would take the form of regional research/evidence hubs providing collaborative, regional mechanisms for medical research, social science research relevant to health, and vaccine production, distribution and delivery. They should draw on local expertise and lived experience[10], making available a greater diversity of knowledge and information to global audiences via channels such as WHO[11], Act-A, Cepi, Gavi, UNESCO, and Southern-led platforms including those led by think tanks and civil society. They must avoid siloed approaches to research and policy making. As a potential model they can learn from the CGIAR system in the agricultural sector as well as its recent restructuring for more local and regional embeddedness. "Designing for transformation" will need iterative and adaptive approaches that are inclusive, pluralist, and work collectively.[12]

4) Feeding into these coordination mechanisms, a revitalized global health research and knowledge infrastructure must generate evidence, data and analysis in ways that address existing global power imbalances and inequities, since global health is global politics. There is a critical need for diversity of knowledge and information, and strengthening of agency and empowerment of researchers, citizens and communities who produce, and use, evidence and knowledge. We recommend the G7 meets this need through support to **international research cooperation partnerships that promote a health-creating society[13].** International research cooperation is still not standard practice. About 80 % of research projects are carried out exclusively in one country, the rest in bilateral (15 %) and multilateral (5 %) cooperation (International Science Council, 2021). To be able to participate in international cooperation, global South researchers often align their research priorities with those of partners in the North. G7 countries can also help support LMICs strengthen their research systems through appropriate technical support and knowledge. We recommend G7 support to expanding **collaborative research networks** that include funders (e.g. Belmont Forum, International Science Council), multilateral organizations (e.g. WHO) and researchers, bringing different forms of knowledge and experience[14], and using a diversity of research approaches and methodologies. This support can be complemented by ensuring LMIC researchers play key roles in advisory and executive boards of regional and multilateral organizations and networks. Platforms and instruments developed by the Belmont Forum, Future Earth, IPCC and IPBES can be used for these purposes and strengthened further. This will encourage collective responsibility for follow-up action by different actors, including communities where challenges are profoundly experienced; and help ensure complementarity between different bodies of knowledge from the medical and social sciences to help address complex and inter-related health challenges. These mechanisms, and associated transfers of funding, will help avoid undue influence of political and private interests of wealthier nations. Moving away from funding G7-research which then designs policies for LMICs, coupled with a push for more funding to be invested by middle income countries in their national science systems, will contribute to a safer, healthier world. G7 members should also strengthen their own national policy processes for engagement with research, evidence and learning, bring independent voices into evidence processes, and promote greater disciplinary diversity.

5) G7 members should ensure that any revitalized, or new, research, evidence and learning global infrastructure incorporates knowledge and evidence systems that accept and engage with uncertainty through effective, transparent sharing of data and evidence. To achieve this, we recommend a revitalized research infrastructure that links research efforts to **adaptive, agile national and regional systems for monitoring, early warning, and crisis preparedness**. We also recommend **investment in digital technologies** to support research, evidence and learning, helping expand health literacy of policy actors, and citizens, in the process. Digital utilities for data under public or cooperative governance should be used to provide a science knowledge commons for tracking access, establishing provenance and scientific intent as well as replicating experiments and innovations, and analyzing, re-measuring and sharing knowledge. Governance mechanisms must be reciprocal, participatory and democratic -including digital rights management, open access, and fair-benefit sharing models - where all stakeholders have a say in governance and access appropriate to their contribution to the data cooperative or digital data utility.

Implementation

G7 members are in a very powerful position to eradicate the inadequacies of current research, knowledge and learning infrastructures. Although G7 members' investment in science and research benefits individual nations and ultimately the world, these benefits are not distributed equitably. Current science and research arrangements constrain a collective, worldwide ability to address multiple challenges relating to, and going beyond, global health. To gain the best value from G7 member research investment, an accompanying high-quality, credible, robust infrastructure is needed that allows joined-up learning from a far wider body of knowledge and experience.

In the **short-term** G7 members should:

- Review their financial allocations to science and research that relates to global health broadly. A **jointly negotiated quota of 0.5% of G7 members' national GDP for R&D funds administered through multilateral channels** would be a starting point, complemented with private sector financial contributions, and with an agreed percentage allocated for health-related research. G7 members should also join a global call for action, spearheaded by the UN in close collaboration with the G7, the G20, private sector partners and other international actors, for a **2023-2032 UN Decade for Health Research**. This initiative will support pandemic preparedness through combining health and social sciences with knowledge on 'preparedness from below' – the understandings, experiences and practices of communities through which they anticipate and manage disease threats on a daily basis.
- Establish an independent working group to lay groundwork for establishing (i) a **centralized health research clearing-house**; and (ii) **Pandemic Centres of Excellence** which maintain links between local contexts and a central coordinating function. These global system strengthening efforts will require close liaison between G7, G20 and the WHO, to identify their institutional location (e.g. multilateral organization, university consortia, independent institutions); to avoid overlap with existing institutions (e.g. WHO Hub on Pandemic and Epidemic Intelligence and Rockefeller Foundation's new Pandemic Institute); and to assure strong public engagement and communication through channels such as Act-A, Cepi and Gavi. The working group should report back to G7 members on priority policy recommendations and harmonization to support the above actions, underpinned by systems for effective, equitable use of data and evidence sharing.
- Apply Digital Finance methods to all research funding by G7 countries, tracking the pipeline of research and all the indicators to find out which are likely to have good outcomes, and increase scrutiny up to cutting off funds for those which have poor or no indicators.

In the **mid-term**, G7 members should:

- Monitor, and publish data on, financial allocations that guarantee a sustained flow of resources to multilateral research on global health and related issues.
- Following recommendations of an independent working group, launch a centralized knowledge, evidence and data clearing house, and a network of Pandemic Centres of Excellence. These actions will require close collaboration with G20 and multilateral institutions and be co-financed through

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public and private sector contributions to ensure regional/national ownership, contribution, and joint benefit.

- Target health research investments through an agreed percentage of research spend via collaborative networks (e.g. WHO's Global Outbreak Alert and Response Network (GOARN))[15] that include funders, multilateral institutions, private sector, and researchers bringing different forms of knowledge and experience to tackle complex, inter-related global health challenges. Interdisciplinary research approaches should be prioritized, including methods that are participatory and inclusive[16]. An agreed percentage of this funding should be ringfenced for exploratory research that is sufficiently agile and contextualised to identify opportunities for solutions and innovation. These solutions could be new products or experiences, or they could be an update or improvements to existing approaches.
- Design digital utilities for science research that span verticals, and geographies so that new patterns can be identified for what works and what doesn't.

In the **long-term**, G7 members should:
- Since global health is global politics, foster longer-term political dialogue at the global level to create the political will for valuing science and research, working across and integrating disciplinary approaches, as worthy of investment, and of practical use for addressing national, regional and global health challenges.
- Participate in global governance, and resourcing, of a robust, credible science, research and learning infrastructure which promotes global, planetary health through equitable distribution of knowledge and learning; and jointly define a global standard of % of GDP to be publicly invested into research and development.
- Support, with financial resources attached, ongoing coordination of global and regional knowledge centres, and the inclusion of evidence and data from different sources, for example by establishing a G7 institute for Digital Economics. This may link to the work of the new WHO unit on Community readiness and resilience, within the Health Emergencies Programme. This approach will help support pandemic preparedness through knowledge on the understandings, experiences and practices of communities in anticipating and managing disease threats on a daily basis.
- Foster a more inclusive approach to research by ensuing a research and evidence infrastructure has a sufficiently wide evidence base, achieved through support to networks of producers of knowledge and evidence. G7 members should also promote the incorporation of Measurement and Improvement Science, Digital Economics, Digital Finance as core elements of how science is funded.

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Disclaimer:

All authors are responsible for the content and recommendations contained within this policy brief. The policy brief has been written as part of a consultation process for the T7 Taskforce for Global Health, led by Taskforce's Co-Chairs Ilona Kickbusch, Anna-Katharina Hornidge and Githinji Gitahi, but it does not represent the official position of the Taskforce or the authors' employers.

Endnotes

1 A collection of wide-ranging evidence on these issues generated by the Covid Collective can be found at https://www.covid-collective.net

2 https://www.google.com/url?q=https://www.thebritishacademy.ac.uk/news/british-academy-joins-academies-across-the-g7-in-call-for-a-globally-equitable-recovery-from-the-societal-impacts-of-covid/&sa=D&source=docs&ust=1648215089042290&usg=AOvVaw1Q8ZtnPm-lvHuMfceVSXrH

3 MacGregor et al, 2022 https://www.tandfonline.com/doi/full/10.1080/01459740.2021.2015591

4 https://www.ids.ac.uk/programme-and-centre/pandemic-preparedness/

5 Scoones, I. and Stirling, A. (2020). The Politics of Uncertainty. Challenges of Transformation. London: Earthscan

6 "Shifting power in global health", co-convened by the United Nations University International Institute for Global Health, Wilton Park, and Development Reimagined, November 2021

7 Cairney, P. (2021). The UK Government's COVID-19 Policy: What Does "Guided by the Science" Mean in Practice? Frontiers in Political Science, 15 March 2021

8 Discussion on the question of possible financial allocations here https://www.nature.com/articles/s41591-021-01422-6; https://donortracker.org/france/globalhealthrd; https://www.thelancet.com/journals/langlo/article/PIIS2214-109X(21)00505-2/fulltext; https://www.thelancet.com/journals/langlo/article/PIIS2214-109X(20)30357-0/fulltext.

9 The authors refer here to Pandemic Centres of Excellence, but recommend these are broad based, with a remit to engage with syndemics - as there are many synergistic, often negative, interactions between a variety of health and socio-economic challenges

10 https://www.google.com/url?q=https://news.vanderbilt.edu/2021/04/09/cultural-context-of-health-is-critical-in-responding-to-pandemics-new-research-shows/&sa=D&source=docs&ust=1648215089141774&usg=AOvVaw3dU_gUw2AMaqMCdFEw3MVo

11 For example https://www.who.int/initiatives/who-hub-for-pandemic-and-epidemic-intelligence

12 For example: https://steps-centre.org/project/drivers_of_disease/

13 https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(21)00585-7/fulltext

14 https://www.google.com/url?q=https://www.smithsonianmag.com/science-nature/science-bears-fingerprints-colonialism-180968709/&sa=D&source=docs&ust=1648215089124641&usg=AOvVaw2S0qRQcfO0-l1XAsJN3gaL

15 https://extranet.who.int/goarn/

16 https://participatoryactionresearch.sites.carleton.edu/about-par/; https://delvetool.com/blog/participatoryaction; https://organizingengagement.org/models/participatory-action-research-and-evaluation/

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Melissa Leach is Director of the Institute of Development Studies (IDS) at the University of Sussex. She co-founded and co-directed the ESRC STEPS (Social, Technological and Environmental Pathways to Sustainability) Centre (www.steps-centre.org) from 2006 – 2014. As a social anthropologist she has carried out long-term ethnographic fieldwork in West Africa while engaging with scientific, policy and public discourses and debates around health, sustainability and development. She has led numerous interdisciplinary, policy-engaged research programmes in Africa and beyond. Amongst external roles, she was vice-chair of the Science Committee of Future Earth 2012 – 2017, lead author of the 2016 World Social Science Report 2016 on Challenging Inequalities and the UN Women's World Survey on the Role of Women in Economic Development 2014 and is a member of the International Panel of Experts on Sustainable Food Systems (IPES-Food). She was the lead social scientist in the UK/WHO responses to the 2014-16 Ebola outbreak and co-led the award-winning Ebola Response Anthropology Platform. She is now working on COVID-19 as co-lead of the Social Science in Humanitarian Action Platform and the Wellcome Trust-funded Pandemic Preparedness Project. She is a Fellow of the British Academy and in 2017 was awarded a CBE for Services to Social Science.

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