

type 2 inflammation is increasing.⁹ On the one hand, patients without type 2 inflammation or with mixed inflammatory endotypes might not respond as well to dupilumab. On the other hand, a large fraction of non-polypoid chronic rhinosinusitis has type 2 inflammation,¹⁰ and these patients might be expected to benefit from dupilumab.

Disruptions in the sinonasal epithelial barrier, dysregulation of the inflammatory response, and enhanced fibrin deposition in nasal polyps are thought to have key roles in CRSwNP pathogenesis.¹¹ Dupilumab binds to the IL-4 receptor α subunit, blocking signalling of the type 2 pro-inflammatory cytokines IL-4 and IL-13. These cytokines are thought to promote IgE synthesis, induce recruitment of type 2 immune cells, enhance mucus secretion, promote epithelial barrier damage, and impair fibrin degradation in CRSwNP.^{11,12} Which (if any) of these downstream pathways are the major target of dupilumab and contribute to its significant clinical benefit remains unclear and warrants further investigation.

Physicians are now faced with decisions of when to start dupilumab treatment and in which patients with CRSwNP. In contrast to asthma, no minimum number of peripheral eosinophils is required for treatment. Subsets of patients with CRSwNP who also had asthma, a history of previous surgery, or non-steroidal anti-inflammatory drug-exacerbated respiratory disease had similar degrees of benefit with dupilumab compared with those of the overall study population. In patients in Bachert and colleagues' study,² 12 weeks after discontinuing dupilumab, nasal polyp size and symptoms returned nearly to levels of patients receiving placebo, suggesting that longer

term treatment with dupilumab might be necessary. The cost of continued administration remains an important consideration.

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- 1 Bhattacharyya N, Villeneuve S, Joish VN, et al. Cost burden and resource utilization in patients with chronic rhinosinusitis and nasal polyps. *Laryngoscope* 2019; **129**: 1969–75.
- 2 Bachert C, Han JK, Desrosiers M, et al. Efficacy and safety of dupilumab in patients with severe chronic rhinosinusitis with nasal polyps (LIBERTY NP SINUS-24 and LIBERTY NP SINUS-52): results from two multicentre, randomised, double-blind, placebo-controlled, parallel-group phase 3 trials. *Lancet* 2019; published online Sept 19. [https://doi.org/10.1016/S0140-6736\(19\)31881-1](https://doi.org/10.1016/S0140-6736(19)31881-1).
- 3 Akinlade B, Guttman-Yassky E, de Bruin-Weller M, et al. Conjunctivitis in dupilumab clinical trials. *Br J Dermatol* 2019; published online March 9. DOI:10.1111/bjd.17869.
- 4 Bachert C, Sousa AR, Lund VJ, et al. Reduced need for surgery in severe nasal polyposis with mepolizumab: randomized trial. *J Allergy Clin Immunol* 2017; **140**: 1024–31.
- 5 Gevaert P, Van Bruaene N, Cattaert T, et al. Mepolizumab, a humanized anti-IL-5 mAb, as a treatment option for severe nasal polyposis. *J Allergy Clin Immunol* 2011; **128**: 989–95.
- 6 Laidlaw TM, Prussin C, Panettieri RA, et al. Dexamipexole depletes blood and tissue eosinophils in nasal polyps with no change in polyp size. *Laryngoscope* 2019; **129**: E61–66.
- 7 Gevaert P, Calus L, Van Zele T, et al. Omalizumab is effective in allergic and nonallergic patients with nasal polyps and asthma. *J Allergy Clin Immunol* 2013; **131**: 110–16.
- 8 Stevens WW, Ocampo CJ, Berdnikovs S, et al. Cytokines in chronic rhinosinusitis. Role in eosinophilia and aspirin-exacerbated respiratory disease. *Am J Respir Crit Care Med* 2015; **192**: 682–94.
- 9 Wang X, Zhang N, Bo M, et al. Diversity of TH cytokine profiles in patients with chronic rhinosinusitis: a multicenter study in Europe, Asia, and Oceania. *J Allergy Clin Immunol* 2016; **138**: 1344–53.
- 10 Stevens WW, Peters AT, Tan BK, et al. Associations between inflammatory endotypes and clinical presentations in chronic rhinosinusitis. *J Allergy Clin Immunol Pract* 2019; published online May 22. DOI:10.1016/j.jaip.2019.05.009.
- 11 Schleimer RP. Immunopathogenesis of chronic rhinosinusitis and nasal polyposis. *Annu Rev Pathol* 2017; **12**: 331–57.
- 12 Zhang Y, Derycke L, Holtappels G, et al. Th2 cytokines orchestrate the secretion of MUC5AC and MUC5B in IL-5-positive chronic rhinosinusitis with nasal polyps. *Allergy* 2019; **74**: 131–40.

North–South inequities in research collaboration in humanitarian and conflict contexts



The Syrian conflict, now in its eighth year, has galvanised the attention of humanitarian agencies, international organisations, and academic institutions. The global response necessitated new forms of North–South research collaboration, often involving international investigators unfamiliar with the social make-up,

political economy, or the nature of the conflict in the Middle East. Research has led to new knowledge on the health and social implications of the crisis and highlighted challenges of the humanitarian response. But some of this research has revealed ethically dubious fieldwork practices, inequities, and power dynamics in

the funding, conduct, and dissemination of academic research across global North–South divides.

A dominant form of collaboration that has emerged, especially in the multi-institutional Syrian refugee research complex, has been one where institutions in high-income countries are incentivised to be the conceptualisers and producers, while Middle East partners become facilitators and executors. Regional academics are typically relegated to the roles of securing institutional review board approvals and local permissions, accessing survey populations, data collection, and translation, and are marginalised from contributing to the interpretation of findings, write-up, and academic authorship (panel).^{1,2} Although similar experiences have been echoed in global health research more generally,^{3,4} the intensification of humanitarian crises, the increase in research funding, and the overwhelming need to act swiftly and produce data that can support humanitarian efforts have accentuated existing power inequities. Inadequate local infrastructure and support for research within the region itself have compounded these problems.

Health research in low-income and middle-income countries affected by armed conflict is often fragmented, underdeveloped, or driven by research agendas from the global North.⁵ The knowledge produced has not

provided an adequate understanding of the specific local context.⁶ The people studied—refugees and vulnerable host communities in the Middle East—have become over-researched populations, expected to volunteer time and information, with few concrete incentives and often minimal impact on their social, economic, and health realities.^{7–9}

We propose three guiding principles for developing more equitable and long-term research partnerships.

First, trust regional research capacity and contribution. Despite decades of turmoil and weak governmental investment in research, the Arab region is not devoid of research capacities. There is much to learn from regional scholars—as insiders on the refugee crisis who have long experienced the systems of governance under study. They speak the language, have rich empirical experience, know the sensitivities and how to navigate them, and can provide contextualised insights into the findings.¹⁰

Second, recognise structural inequities and power imbalances. Imbalanced collaborations in research emanate from inequality in access to funds and limited opportunities for Global South partners to be principal investigators—a weakness of which funders of research in humanitarian settings need to be mindful. But consideration must also be given to inadequacies in local research infrastructure, data stewardship capabilities, and experience in negotiating the terms of research collaboration.⁵

Third, build long-term sustainable research collaborations. Short-term projects do little more than document the state of affairs at one point in time. The *Lancet* Palestinian Health Alliance, a scientific network of Palestinian and international partners, has been ongoing for 9 years and is a notable exception. Special efforts to mentor junior researchers and to invest in capacity strengthening increased the volume and quality of research output and Palestinian authorship over time.¹¹ Other examples are the 2009–15 context-led multicountry research and capacity building North–South collaborations projects, MedCHAMPS and RESCAP-Med, with fair authorship practices encouraging opportunities for future collaborations,¹² and more recently the GCRF RECAP and R4HC-MENA, where research agendas are codeveloped with local partners and sustainable research capacity strengthening is embedded.

Growing awareness of inequities in global health research has stimulated important initiatives to

Panel: Patterns of authorship in health research on the Syrian conflict

To examine the proportion of authorship from the Syrian conflict setting and to understand the nature of North–South collaboration, we searched six academic databases (Arab World Research Source, Embase, Global Health, PubMed, Scopus, and Web of Science) for original and review journal articles on the Syrian refugee crisis and health published between 2011 and 2018. We used the following search terms: Syria* AND (refugees OR displaced OR asylum OR conflict OR war) in the title and abstract fields.

We found that 377 (92%) of the 410 papers on this subject showed no collaboration with authors affiliated with institutions located in Syria. In total, 226 (55%) of the papers had authors who were based in neighbouring countries (Jordan 54 [13%], Lebanon 67 [16%], and Turkey 115 [28%]), and 205 (50%) had authors who were based in the USA, the UK, and Europe (total exceeds 100% due to overlap). When first authorship was considered, the number of papers with Syrian or regional authors dropped even further to 12 (3%), 36 (9%), 37 (9%), and 94 (23%) in Syria, Jordan, Lebanon, and Turkey, respectively.

For GCRF RECAP see <http://www.lshtm.ac.uk/research/centres-projects-groups/recap>

For R4HC-MENA see <http://www.r4hc-mena.org>

ensure more equitable research collaborations. These include, among others, the COHRED Research Fairness Initiative, Responsible conduct in the Global Research Enterprise, and the TRUST initiative. Yet on-the-ground implementation of these principles is often nominal and few research funders scrutinise metrics on equitable partnerships. Scant attention has been paid to the specificities of humanitarian health research.

We make the following recommendations to advance this agenda, framed around the research lifecycle, to support contextually led and more equitable collaborative partnerships in health research in such contexts.

Rather than rely on high-income partners as intermediaries, grant funding agencies should form direct lines of communication and provide incentives for equitable budgetary and financial arrangements across institutional collaborations. Spaces need to be opened on research funding panels and advisory boards that set global health research grant agendas for researchers from institutions in low-income and middle-income countries. Funders can provide seed funding for partnership meetings before proposal submission, as is done by ELHRA/R2HC, support longer timeframes for collaborative networks, and incorporate individual, infrastructure, and institutional capacity-strengthening to promote collaborators' mutual trust.

There is much that collaborators can do to ensure the processes and structures for equitable partnerships, such as through planning meetings, agreed and written project partnership or authorship principles, and fair project management and governance structures.

Journal editors can ascertain the extent to which equitable research practices have taken place. *The Lancet Global Health*¹³ and *Conflict and Health*,¹⁴ for example, are increasingly looking unfavourably on papers that use data from a country without involving local scholars as co-authors. Having at least one peer reviewer from the country in which the research is done—a long-time practice of the journal *Sexual and Reproductive Health Matters*, for example, and a stated aim of *The Lancet* journals¹⁵ among others—encourages evaluation of contextual relevance. Given barriers with language and scientific writing skills, authorship guidelines, such as those of the International Committee of Medical Journal Editors, might need to be more flexibly applied in conflict-related research.¹⁶

Global South academic, research, and multilateral institutions need to empower researchers in contractual negotiation and in data stewardship, sharing, and protection. Hedt-Gauthier and colleagues¹⁷ demanded that academic institutions in high-income countries adopt reflective practices in the evaluation of their own global health researchers that would instil fair and ethical collaboration. We strongly endorse this demand.

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- 1 Sukarieh M, Tannock S. Subcontracting academia: alienation, exploitation and disillusionment in the UK overseas Syrian refugee research industry. *Antipode* 2019; **51**: 664–80.
- 2 Jenkins SA. Assistants, guides, collaborators, friends: the concealed figures of conflict research. *J Contemp Ethnogr* 2018; **47**: 143–70.
- 3 Parker M, Kingori P. Good and bad research collaborations: researchers' views on science and ethics in global health research. *PLoS One* 2016; **11**: e0163579.
- 4 Lyer AR. Authorship trends in *The Lancet Global Health*. *Lancet Glob Health* 2018; **6**: e142.
- 5 Bowsher G, Papamichail A, El Achi N, et al. A narrative review of health research capacity strengthening in low and middle-income countries: lessons for conflict-affected areas. *Global Health* 2019; **15**: 23.
- 6 El-Jardali F, Woodman M, Hammoud R, Kdouh O, Hamade R, Ammar W. Discussion of "Health service utilization and access to medicines among Syrian refugee and host community children in Lebanon" by Lyles et al. *J Int Humanit Action* 2017; **2**: 3.
- 7 Sukarieh M, Tannock S. On the problem of over-researched communities: the case of the Shatila Palestinian Refugee Camp in Lebanon. *Sociology* 2013; **47**: 494–08.
- 8 Pascucci, E. The humanitarian infrastructure and the question of over-research: reflections on fieldwork in the refugee crises in the Middle East and North Africa. *Area* 2019; **49**: 249–55.
- 9 Coutts A, Fouad MF. Response to Syria's health crisis—poor and uncoordinated. *Lancet* 2013; **381**: 2243.
- 10 Talhouk, R, Balaam M, Toombs AL, et al. Involving Syrian Refugees in Design Research: Lessons Learnt from the Field. Proceedings of the Designing Interactive Systems ACM International Conference Series. San Diego, CA, USA; June 23–28, 2019. DOI:10.1145/3322276.3322335.
- 11 Watt G, Giacaman R, Zurayk H. Progress of *The Lancet* Palestinian Health Alliance. *Lancet* 2017; **390** (suppl): S1.

- 12 Phillimore P, Sibai AM, Rizk A, et al. Context-led capacity building in time of crisis: fostering NCD research skills in the Mediterranean Middle East and North Africa. *Glob Health Action* 2019; published online Feb 5. <https://doi.org/10.1080/16549716.2019.1569838>.
- 13 The Lancet Global Health. Closing the door on parasites and parachutes. *Lancet Glob Health* 2018; **6**: e593.
- 14 Conflict and Health. Submission guidelines. 2019. <https://conflictandhealth.biomedcentral.com/submission-guidelines/preparing-your-manuscript/research-article> (accessed Oct 14, 2019).
- 15 Clark J, Horton R. What is *The Lancet* doing about gender and diversity? *Lancet* 2019; **393**: 508–10.
- 16 Smith E, Hunt M, Master Z. Authorship ethics in global health research partnerships between researchers from low or middle income countries and high income countries. *BMC Med Ethics* 2014, **15**: 42.
- 17 Hedt-Gauthier B, Airhihenbuwa CO, Bawah AA, Burke KS, Cherian T, Connelly MT. Academic promotion policies and equity in global health collaborations. *Lancet* 2018; **392**: 1608–09.



Achieving health equity: democracy matters



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Progress on health equity in the European region in the past two decades has been slower than expected. Indeed, some countries have even seen health inequalities widen.¹ This slow progress is, to some extent, surprising because there is almost unanimous political commitment to addressing health inequities and many countries have made great strides in implementing policies to reduce the health gap.^{1,2} Europe, as a region, is on track to achieving the Sustainable Development Goals (SDGs) overall, but countries are not attaining SDG 10 and SDG 3 because ensuring healthy lives for all is impossible without reducing health inequities.

The report of the WHO European Health Equity Status Report Initiative (HESRI), launched on Sept 10, 2019, reviews achievements on the road to health equity to understand how to further accelerate action, and to discuss how to influence decisions related to fiscal policy and industrial strategy in order to deliver healthy, prosperous lives for all.³ The findings of the HESRI report³ show that the evidence on how to best tackle health inequity is clear and overwhelming, even more so in Europe, where we can draw on a wealth of health inequalities research.⁴ We know the size of the gaps in life expectancy, the social gradients in the burden of disease across the European region, and the root causes of these health inequalities, the social determinants of health.

The root causes of health inequities are driven by policies that structure access to the social determinants of health. Five conditions are necessary to reduce health inequity: good-quality and accessible health services; income security and an appropriate, fair level of social protection; decent living conditions; good social and human capital; and decent work and employment conditions.³ Of these, the two most important determinants are precarious housing and living conditions,⁵ and low income and weak social protection.⁶ When people live in unaffordable, cold, and

unsafe housing on insecure contracts, their health is worse and they die prematurely.⁷ When people cannot make ends meet and when social protection systems are stigmatising and inadequate, their health suffers.⁸ Inadequate access to health services, conditions of employment, and personal and community capabilities are all important too. Health outcomes improve when people can access the care they think they need; when people work in secure employment with a living wage; and when people have someone to turn to for help and feel they have a voice in decision-making processes.^{9,10}

The drivers of health inequity are all too prevalent across the region. This situation is not inevitable. These determinants of health inequalities are all modifiable through policies focused on the five areas identified in the report:³ health services, social protection, decent living conditions, social and human capital, and decent employment. Why, then, has progress been so slow?

Emerging evidence indicates that policies to address health inequalities do not emerge out of thin air, rather they are the result of a country's or region's wider political economy.^{11,12} Policies are the product of people in particular socioeconomic contexts interacting with political institutions that shape the political process in a given location—be that a community, city, region, or country. Where these institutions are not accountable, transparent, participatory, or coherent, we will be far less likely to see the policy change necessary to deliver health equity. Governments and other stakeholders must actively work to alter how we incorporate the voices, lived experiences, and passions of the child, the young person, or adult who is not able to thrive and prosper because of health inequities. Democratic institutions, such as free and fair elections, are part of establishing the conditions that empower individuals and communities, ensure participation is meaningful, and establish decision-making processes that are

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