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Advancing equitable global health research partnerships in Africa

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If you want to go fast, go alone. If you want to go far, go together.

—African proverb

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Summary box

- Global health partnerships between researchers in the West and in Africa are often imbalanced, supporting the careers and priorities of the former than the latter.
- The skew in economic and academic resources between stakeholder countries might explain the imbalance in global health research partnerships between.
- To successfully target the imbalance in economic and academic resources, global health research partnerships should focus on equity as opposed to equality.
- Equitable partnerships will require early and clear communication about goals and expectations of partnerships, and redefining academic careers and priorities.
- Mentorship programmes and investment in Africa-based researchers and Africa-based development are also necessary for achieving equitable partnerships.

INTRODUCTION

Many global health partnerships involve collaborations between investigators from Africa and the West. Although such partnerships have produced numerous important advances, such as vaccine development and treatments for HIV/AIDS, they are largely imbalanced. Western investigators generally formulate the research questions, design the studies, obtain the funding, conduct the analyses and present the findings in conferences held in the West and publish the findings in journals that are often unavailable for Africans. African investigators typically collect the data and have limited opportunities to make intellectual contributions to the process.[1] This situation raises fundamental questions about the goals and products of global health research partnerships.

In this article, we explore the root causes of the imbalance and propose strategies to formulate equitable global health research partnerships; our comments reflect the experiences of both African and Western researchers. We believe this discussion is especially relevant now because of growing interest and investment in global health, as well as rising discontent among African scientists.[2] Moreover, this inequity is often not openly discussed among research partners[1] and inadequate attention has been paid to it in the literature, including in bioethics where the voice of African researchers is notably rare.[3]

THE CAUSES OF IMBALANCE

Economic resources

While funders typically identify research priorities based on strong scientific premise and clinical need, the types of studies conducted are heavily influenced by funding agencies, which are mainly based in the West.[4] Though their research agendas often address important areas, they may not reflect the interests of African partners, which tend to be more grounded in local needs. For example, African investigators may prioritise neglected diseases or locally relevant laboratory reference values that allow clinicians to work more effectively, rather than the 'public health goods' with global applications favoured by the Western funders.[5 6] Additionally, Western investigators often have a natural advantage in receiving funds from Western organisations due to eligibility criteria. Even if eligible, however, African investigators commonly have limited access to the 'trade secrets' and requirements of successful grant applications. Moreover, most Western donors are English-speaking, putting researchers from many countries at a disadvantage.

Despite calls for African-funded research, such as the Abuja Declaration,[7] African

institutions have funded little research. The benefit of research in transforming society is commonly underappreciated by politicians and policymakers in Africa, and often inadequately communicated by researchers, although many have tried their best. Why should a country prioritise and sponsor research while much of its population has inadequate access to health and education? Until research is locally relevant and valued, local funding will remain elusive.

Academic resources

A successful academic career in the USA often begins with mentored career development awards. These grants provide multiple protected years of salary support to promising investigators, funding for training and research activities, and hands-on mentoring to learn the art of grant writing and publishing. In the absence of career development awards, researchers can also 'buy out' other responsibilities through research funding over time. In contrast, junior African investigators typically have a full clinical practice and/or heavy teaching load, and struggle to engage in research on 'personal time'. The lack of senior mentors in many African countries is largely a chicken-and-egg problem; mentors cannot develop without opportunities to do so, and thus mentees cannot follow in their footsteps. Stable institutional frameworks and opportunities to build research communities could help further supportive networks for mentoring.

Global health research also depends on strong clinical, laboratory and human resource infrastructure. While such resources exist in the West, they are scarce in Africa and limit contributions of African researchers.[8 9] Though facilities and expertise are improving, they remain inadequate in most settings. Consequently, many projects ship samples to Western laboratories instead of building local capacity. Unfortunately, most studies do not have the budget or funder approval to make significant investments in African laboratories infrastructure. Even when infrastructure is funded in Africa, the donors still often come from the West, thus perpetuating dependency and inequity.

MECHANISMS TO ACHIEVE EQUITABLE PARTNERSHIPS

Moving forward, public health initiatives in global health research partnerships should focus on equity as opposed to equality. Successful solutions will target the imbalance in resources, so that all may participate and benefit in research partnerships. We propose five strategies through which equity can be achieved.

Early and clear communication about goals and expectations

Despite good intentions, miscommunication is common. Open discussion of responsibilities may be uncomfortable, especially when directly addressing inequality[10] and speaking across cultures and languages. Nonetheless, global health research partners must work towards mutually understood goals, even when they are not necessarily overlapping. The political and economic inequities that frame global health research need to be part of the conversation and considered in discussions of research ethics. Effective communication helps confirm that all perspectives are heard and respected, plans are effectively implemented and projects produce desired deliverables, including merit-oriented authorship. Formal arrangements (eg, memoranda of understanding) may be helpful in achieving clarity. All partners should be present at the decision-making table throughout the entire research process.

Mentorship

Investigators in the West, including African diaspora, conducting global health research have a responsibility to invest in mentoring African researchers. Mentorship may begin simply through small research projects and expand to both personal and professional development. It can also include longitudinal, two-way exchanges, if desired. Funding for exchange opportunities should be explicitly included in grants to promote this aspect of mentorship. While participation in short courses (eg, manuscript writing) is beneficial to trainees, longitudinal training opportunities lasting months or years have a greater impact on careers, and distance mentoring can extend the impact of initial trainings.[11] Trainings should also specifically address how to successfully conduct research in resource-limited settings, which may differ substantially from the settings in which the training is being conducted. Individuals who know both settings, including African diaspora, are critically needed for this purpose. Moreover, the value of training needs to be measured in grants won by African investigators, not certificates of participation.

Redefining academic currency and priorities

All investigators need academic publications and grants; junior investigators cannot advance their careers and become mentors themselves without this 'currency'. However, partners often compete with each other (eg, for first author manuscripts). This situation can be avoided by redefining academic priorities. For instance, Western institutions typically only value mentorship of their own trainees in the promotions process; mentorship of African researchers should be rewarded similarly. At the same time, mentorship should be incentivised within African institutions, through promotion and recognition with mentoring awards. Such changes are important for encouraging Africans training abroad to return to conduct research in their home countries and mitigate 'brain drain'.[12]

Additionally, novel metrics are needed beyond publications and grants, including competency in mentoring skills on both sides of the partnerships and development of sustained research programmes in African settings. Other metrics could include consumption of the produced evidence by policymakers.

Box 1 Resources for investment in African researchers

- K43 Global Emerging Leader award: www.grants.nih.gov/grants/guide/pa-files/PAR-15-292.html
- Wellcome Trust Developing Excellence in Leadership, Training, and Science Africa award: www.aasciences.ac.ke/academy/academy-pages/developing-excellence-in-leadership-training-and-science-deltas-africa-initiative
- Africa Research Excellence Fund (African Academy of Sciences): www.africaresearchexcellencefund.org.uk
- Joint funding through the National Institutes of Health and South African Medical Research Council: www.grants.nih.gov/grants/guide/rfa-files/RFA-AI-14-010.html
- Doris Duke Africa Health Initiative: http://www.ddcf.org/what-we-fund/african-health-initiative
- Next Einstein Forum: www.nef.org

Emphasis on the value of relevant study designs may also help facilitate the contributions of African researchers. For example, implementation science, which focuses on effectiveness of known interventions in real-world situations, may be of greater interest and relevance for African researchers compared with traditional randomised controlled trials.

Investment in African researchers

Funding specifically geared towards career development for African investigators is needed, so that they may be the principal investigators of global health research. The list of programmes designed to empower Africans to lead research projects is growing (Box 1). However, we need to carefully consider how best to provide this support under current conditions and additional, innovative mechanisms will be critical for building impactful human resource capacity and establishing a solid research foundation in Africa. Beyond individual researchers, support is also needed for organisational capacity, including grants management and research ethics training and oversight. Importantly, these investments will have little benefit if they are short term (ie, <5 years) and fail to address institutional weaknesses.

Investment should also come from African sources. While funding may be limited, resources could be pooled from African governments, African philanthropy, African-based corporations and the African diaspora.[13] Some countries (eg, Kenya) have recently begun to allocate funds specifically to research.[14] Examples of Africans investing in health and giving back to communities already include successful businessmen like Aliko Dangote and Strive Masiyiwa. Following Bill Gates' lead, they could also invest in health-related research.

Africa-based development

Global health research needs leadership to develop an environment conducive to high-quality, relevant research performed in Africa by Africans. While many national Departments of Health have robust health research agencies, their potential for impact is only realised when their findings are used for making key policy decisions.[15] The culture of policymakers and implementers should demand evidence to drive intervention choices and implementation strategies. African regional organisations could help set priorities, govern ethical and regulatory policies, and coordinate research efforts. A regional council could also leverage resources and increase opportunities for African-based mentorship and recognition, as was proposed during the recent African and European Union meeting in Côte d'Ivoire.[16]

CONCLUSIONS

If we want to go far in global health partnerships, we have to go together. Africans and African diaspora should take ownership of research conducted in Africa by investing in it, creating conducive environments for mentoring, and creating regional boards that coordinate research activities. Western researchers should strive to be equitable partners and to make themselves supporting partners, not the primary leaders of African-based research. While economic investment will be critical in correcting the existing imbalances in research partnerships, commitment to communication, mentorship and academic priorities can facilitate the path forward and enable productive, lasting and just collaborations.

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