

## A database on global health research in Africa



Over the past decade, global concern about the disproportionate burden of disease and mortality in low-income countries, especially in sub-Saharan Africa, has led to a substantial influx of funding for research by many donor and research agencies.<sup>1</sup> This investment has energised in-country research; advanced the discovery and the use of new treatments for HIV/AIDS, tuberculosis, and malaria; and stimulated new research strategies for the prevention and control of these and other diseases. Questions have been raised about whether these international efforts could be better coordinated to increase efficiency and improve outcomes, while ensuring that research institutions and universities are supported with these funds.<sup>2</sup> Financial support has been uneven; health ministries in some sub-Saharan African countries have been overwhelmed with many donors seeking to fund research activities, whereas neighbouring countries with an equally large burden of diseases have a paucity of funding.

As the heads of nine major research-funding and research organisations, we have recognised the need to develop a public means to track these international research activities and partnered investments, and to share our results with the broader research and funding community. Such tracking should allow us to analyse and understand the landscape of research, to identify gaps in funding and areas where there might be a duplication of effort, and to work more effectively to synergise our investments. Local investigators could also become more aware of programmes supported in their institutions to develop local networks and collaborations; some African researchers have reported first learning about studies done in their own country by reading about them in scholarly journals. The ultimate goal of this analysis is to encourage an increase in vibrant, productive, competitive, and self-sustaining research communities in these settings.

As a first step, we have provided data for funding from our nine organisations' portfolio of research activities in sub-Saharan Africa for 2011–12, so that our institutions' own investments could be mapped and shared with others. These data have been organised on a website, World RePORT, which was created by the US National Institutes of Health and is freely available in a beta-format. The website is designed to allow communication

and to improve coordination of biomedical, clinical, and health research that was funded by major public and private supporters of biomedical research (figure). With new mapping technologies, each funding organisation's projects are plotted geographically and marked with the unique icon of their logo. This research can be searched with keywords in project titles and abstracts, and filtered by country, funding organisation, topic, or any combination. Data are summarised by both the funding organisation and the institution that does the research. Other details given, where available, include project title, abstract, principal investigators and their organisation, city and country, and hyperlinks that lead to more descriptive information. A data-export feature allows the user to build individual datasets for further analyses and customised reporting. Data are checked for quality by the provider and the data entry team, and we plan to update this annually.

The value of the illustrative map and data table is immediately evident when seeking locations and institutions where research endeavours are concentrated and where there are gaps. For example, a search with the keyword "malaria" identifies more

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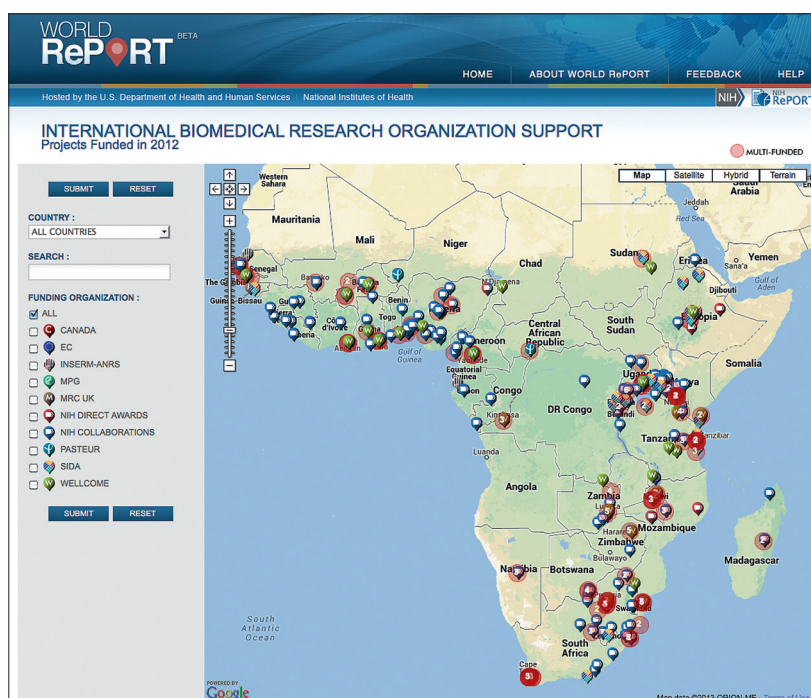


Figure: World RePORT website

Interactive map of research investments made by nine international research funding agencies in sub-Saharan Africa.

than 200 separate research efforts across 17 countries, funded by all nine organisations that provided data. By contrast, a search with the keyword “diabetes” reveals only 16 research activities in seven countries, funded by five organisations. Other diseases seem to receive little funding, including some that are particularly problematic in Africa, such as the neglected tropical diseases (eg, Buruli ulcer, yaws, and human African trypanosomiasis), the non-communicable diseases that are a global priority, and other diseases that are especially burdensome in African populations (eg, sickle-cell disease). World RePORT gives an overview of the clusters of investments in countries. These clusters can then be used to identify research institutes and universities that are well supported centres of excellence, and find gaps where little research is funded by our nine organisations.

We intend for the World RePORT to become a powerful programme, available to all, for the simple visualisation and consistent monitoring and assessment of research funding in low-income and middle-income regions. We hope the website will identify new opportunities for researchers to build more effective networks, and for governments and donors to consider new and more strategic investments. We encourage other governments, non-governmental organisations, and philanthropic funding agencies to join the effort to expand World RePORT, first in sub-Saharan Africa, and then beyond this region. The availability of a comprehensive, timely, and inclusive database could be of value to governments, donor agencies, investigators, and the broader global health research community, particularly for those working in the regions covered by the map.

World RePORT is hosted by the US National Institutes of Health and managed through a steering committee of the agencies providing data. We plan to expand the map to parts of Asia and increase the number of

contributing partners. As a beta-version in testing, technical staff will be improving the programme as issues are identified. Both regular updates and broad participation by many funders are needed to provide a robust and comprehensive view of health-research efforts in sub-Saharan Africa, and around the world. Our hope is to minimise overlap, maximise resources, promote collaboration in our joint aim to advance science, and build robust research capacity in under-resourced areas, which could lead to improved treatment, prevention, and ultimately, better health and quality of life.

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- 1 World Health Organization Maximizing Positive Synergies Collaborative Group. An assessment of interactions between global health initiatives and country health systems. *Lancet* 2009; **373**: 2137–69.
- 2 Terry RF, Allen L, Gardner CA, Guzman J, Moran M, Viergever RF. Mapping global health research investments, time for new thinking—a Babel Fish for research. *Health Res Policy Syst* 2012; **10**: 28.