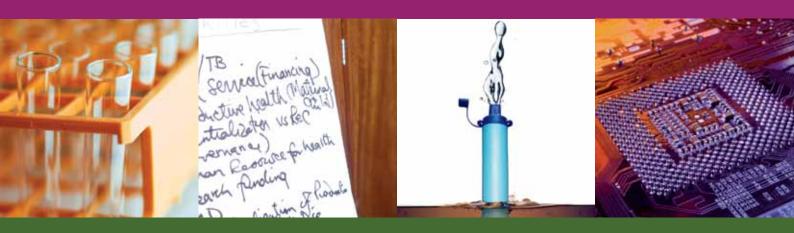


# Strengthening research and innovation systems for health and development in Africa:

Report from a Tanzania knowledge-sharing workshop.





## Strengthening research and innovation systems for health and development in Africa: Report from a Tanzania knowledge-sharing workshop.

DAR ES SALAAM, TANZANIA 5 to 8 November 2012

## Acknowledgements

This report gathers together the contributions made by speakers and attendees at a knowledge sharing and networking workshop held in in Dar es Salaam, Tanzania on 'Strengthening Research and Innovation Systems for Health and Development in Africa', 5 to 8 November 2012. The workshop was coordinated by the Council on Health Research for Development (COHRED), the New Partnership for Africa's Development (NEPAD) Agency, the West African Health Organisation (WAHO) and the local hosts - the National Institute for Medical Research (NIMR) and the Tanzania Commission for Science and Technology (COSTECH). Financial support for the workshop was provided by COHRED and WAHO within the context of the Research for Health Africa programme (funded by the Netherlands' Ministry of Foreign Affairs) and the West Africa research for health system strengthening programme (funded by WAHO and the International Development Research Centre, Canada). A special thank you goes to all the participants, speakers and presenters for their contributions and participation.

Key words: National Research and Innovation Systems, Research for Health, Research for Health Africa, Research and Innovation for Health, Financing for Health Research, Knowledge Transfer and Translation, Tanzania, Africa, Monitoring and Evaluation, Communicating Research.

Research for Health Africa is a jointly run programme between COHRED and The New Partnership for Africa's Development Agency of the African Union, The NEPAD Agency. Together, with initial funding from the Ministry of Foreign Affairs of the Netherlands, they aim to support the strengthening of national capacity to govern research and innovation in African countries.

For more information, go to: http://www.cohred.org/r4ha/

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The knowledge sharing and networking workshop took place in Dar es Salaam, Tanzania, 5 to 8 November 2012 and brought together approximately 30 professionals, researchers and media practitioners from institutions and strategic programmes on research for health, science and technology in Africa. The workshop was attended by participants from Tanzania (NIMR and COSTECH), NEPAD and WAHO, and the following African countries: Botswana, Guinea Bissau, Liberia, Malawi, Mozambique, Namibia, Senegal, and Sierra Leone. Also in attendance were members of media in Tanzania. The workshop also included sessions with local research partners: the Ifakara Health Institute (Ifakara) and Policy Research for Development (REPOA).

The goal of the workshop was to share experiences about research and innovation system strengthening by paying particular attention to the case of Tanzania. The programme addressed the key components for system strengthening, including: research priority setting, strategies for aligning national priorities with funding, research governance management information system development, moving from research to action – communicating effectively with policy makers, a dialogue on country resource needs, monitoring and evaluation, and strengthening regional partnerships.

## Key observations and messages

Below is a summary of the main messages from the workshop:

- (i) The Tanzania experience had many important lessons to share on issues concerning the creation of an enabling environment for the set-up of a research governance system. These included:
  - Strong political will and direction at the highest level, supporting research, science and innovation in the country is essential for success. There was consensus throughout the discussions about the need for and value of having 'political will' from leaders, policy-makers and influencers in order for research and innovation to have an impact in a country. The Tanzania experience, whereby there is a commitment to increase funding into research and development (R&D) from 0.3% to 1% of national Gross Domestic Product (GDP), was cited, as an example of genuine political will to improve the health status of a country by committing public investment into research and innovation. As part of these discussions, it was also highlighted that in situations where there is explicit political will, politicians and policy makers will more often than not work towards the deployment of scientific methods, results and innovations into their policies. For more on the link

Box 1

DURING HIS BRIEF TO THE PARTICIPANTS at the workshop, Dr. Hassan Mshinda, the Director General of the Tanzania Commission for Science and Technology (COSTECH), went to great length to highlight the importance of having good leadership, clear roles and responsibilities for (national or regional-level) institutions and organisations, peer learning and political will in efforts that are aimed at linking science, innovation and research to socioeconomic development. It is in this regard that he also spoke about Tanzania's efforts in facilitating national, regional and international cooperation in scientific research and technology development and transfer. Tanzania will host the next Smart Partnership Dialogue that is scheduled to take place from 24th to 28th May 2013 in Dar es Salaam under the theme – 'Leveraging Technology for Africa's Socio-Economic Transformation'. According to Dr. Mshinda, the leadership in Tanzania is hosting the 2013 dialogue as part of the broader regional efforts aimed at strengthening science and technology in Africa. At the national level, preparation for the Global Dialogue has been preceded by a series of national dialogues through which various local constituents, practitioners and sectors have been brought together to come up with topical issues that are not just locally relevant, but which also resonate internationally and therefore merit a grander discourse and focus.

between political will and research, science and innovation see Box 1.

- The presence of clear roles and mandates for research institutions, partners and stakeholders can enhance collaboration and the actual smooth running of a research governance system. Again, drawing on the Tanzanian experience, it was also argued that the presence of clearly defined and differentiated roles and mandates between, for instance, NIMR, REPOA and COSTECH, had helped the country to progress towards the set-up of research for health priorities' that reflected the needs of the country. In the case of Tanzania, it was highlighted that national level institutions were aware that COSTECH was the coordinating agency for all research in the country - including being in charge of guiding the priority setting process for R&D, guiding on policies, and the allocation and utilisation of resources. In doing this, COSTECH actually works with the primary actors and institutions of the country's research system.
- Linking research outcomes to innovation, commercialisation and policy.
   Health systems are under pressure, and budgets are not increasing. To meet growing demand, it is clear that researchers must work innovatively in order to create market-oriented products and service.



Luke Bawo from Liberia's Ministry of Health and Social Welfare spoke about the strategies for aligning priorities to funding

es through which their research can be linked not only to commercialisation, but also to policy-making. The good news is that countries are increasingly taking charge of these efforts and using their own resources and local knowledge. The likes of NIMR, COSTECH and Ifakara are taking an active role in driving innovation to optimise services and improve health outcomes. Today, NIMR is working on the mass production of a series of herbal-based medicines. For more on this, see Box 2.

Box 2

DR. MWELE MALECELA, Director General of NIMR, explained that over the years, NIMR has evolved so that priority areas for research are set through engaging different stakeholders, including communities and vulnerable groups, to gather information for informing priority setting. "The idea is to ensure that the priority areas for research address the needs of the public," she explained. As such, NIMR is now gearing up for the mass production of its newly developed natural/herbal based medicine, with the launch of a factory in late 2012. Dr Malecela noted that once the factory is in operation, the amount of money from selling the natural products could help run the operation and research activities of the Institute. "It is important for the government to look at these institutions as income generating as well as providing services. Once in operation, the government subsidy will decrease because the idea in the long run is to decrease dependence on government," she explained. She explained that NIMR, as a public institution, is considering the start-up of a foundation that will focus on selling products innovated by the institution.

(ii) 'Priority setting' and 'national research agenda' as key elements in strengthening governance and capacity of national-level research and innovation systems. Participants argued that national research priority setting is key - but it is sometimes difficult to act upon the identified areas due to limited resources. Funding is also needed for conducting national priority setting activities and training sessions. Participants from countries such as Mozambique and Liberia spoke about how within the context of the R4HA and West Africa programmes, they are working towards the development of their national research for health agenda, building upon the priorities set through inclusive stakeholder involvement. Through these system-strengthening programmes, future activities include establishing national research ethics review committees, and building capacity to support and sustain these processes.

One of the issues that also came out strongly in the discussions on priority setting was on how to ensure that there was broader stakeholder - and particularly local community level - involvement in the priority setting activities.



Dr. Mwele Malecela introduced NIMR and it's mandate to the participants

It is important to include the community and vulnerable populations in the priority setting exercise and to link the issues they raise back to health. An example was provided by NIMR. Local community groups identified 'water' as their top concern. Consequently, if issues related to water are the greatest priority of the community, then it is critical to link the priority to the health consequences so as to come up with more relevant priorities and to best address the needs of the community. To ensure the fullest representation in the identification of priority areas for research, NIMR has set-up a stakeholders' forum through which they have pushed for the involvement and engagement of various stakeholder groups.

It was also argued that the alignment of national priorities to the research agenda is crucial and can be used to integrate certain essential crosscutting issues, such as those concerning gender and equity. For more on the value of linking research outputs to the priorities of a country see Box 3 below on Ifakara. Furthermore, a national research agenda can also be used to target donors and businesses in a more strategic way whilst also helping the country to align national planning and budget allocation to research.

(iii) Greater absorptive capacity for institutions is required to handle large grants and funding. This can be achieved through setting up robust financial and management structures. Participants highlighted that often, research managers have little or no training in man-

agement. Greater attention to management skills could assist in strengthening the ability of research managers to oversee key aspects of their programmes, for example, human resources, finances, planning, and monitoring and evaluation. Countries also need to designate a research governance body - such as, COSTECH in the case of Tanzania - that can coordinate research and assume a stewardship role.

(iv) With regard to research, funding and international partners, it was acknowledged that international agencies play

an important role in supporting efforts to strengthen national research systems for health. However, it was also noted that research for health and support from international agencies still portrays elements of being top-down and inequitable, and international and multilateral agencies need to address the recurring issues concerning support for research for health that is in line with the country priorities. It is in this regard that



Participants exchange views on issues concerning resource mobilisation and funding for research and innovation for health

participants reiterated the need for countries to have in place strong leadership, policies and a clear sense of the national priorities in order for them to push the international community to buy into their priorities. International donor agencies should also conduct a situation analysis on themselves, as countries are expected to do, including an assessment of the extent to which their actions, outputs and impact are in alignment with the ultimate goals, values and principles of the countries.

Box 3

PARTICIPANTS VISITED the Ifakara Health Institute and met with staff to learn about their organisational structure, the work they are doing and how they are linked to the overall national research agenda of Tanzania. Ifakara is one of Africa's most eminent health research organisations. With a history of more than 50 years, Ifakara is an independent, non-profit organisation that conducts a wide range of health-related research, including biomedical and environmental studies, trials of drugs, vaccines and diagnostics, health-systems research, and monitoring and evaluation. This research is aligned to Tanzania's public health needs, research priorities and broader national health research agenda. Because Ifakara's work is aligned to Tanzania's identified priorities, their findings often gain public attention and they also influence policy decisions. For more on this, go to: www.ihi.or.tz.

(v) Research governance management information systems with a specific focus on the research ethics review processes. Participants agreed that it was important to improve the efficiencies of the existing manual and complex paper-based ethics review systems. The motivation for this was the view that a management information system such as Health Research Web is being used – as in the case of countries such as Senegal and Tanzania - to convert knowledge into information that is in turn used to inform key decisions and/or to simply share and communicate information on the research for health landscape across countries and regions. Participants also heard that COHRED has more recently unveiled the online platform 'Research for Health and Innovation Organiser' (RHInnO) which enables users, researchers and research institutions to register research projects, issue calls for proposals, and manage the research data and to publish the research results. Of particular interest to Research Ethics Committees (RECs) is the RHInnO Ethics platform, which enables RECs to streamline the ethics review process, produce reports and track the progress of projects in the ethics review web-based system.



Jude Aidam (left) of WAHO leads a discussion at the workshop.

Whilst acknowledging the benefits of these web-based system tools, participants argued that they would not have a long-term impact unless they are embedded into a comprehensive research governance framework in order for them to be sustained.

(vi) Participants also argued that strengthening research and innovation systems involves increasing the critical mass of researchers in a country. Consequently, there needs to be an investment in human resources for health research (HRHR) through building up new generations of scientists. Actions for countries can involve supporting science as part of primary and secondary education, training Masters and PhD students and developing attractive career opportunities to encourage retention. It was also suggested that new opportunities for investing in laboratories and research facilities could also be explored through public-private partnerships.

(vii) Another key message was on the need to build-up the structures and systems for monitoring and evaluation (M&E). Although most of the participating countries had some basic M&E frameworks in place, M&E, in general, was a weak point for most of the countries. There are structures in place for some countries, but with limited function-

ality, whilst others have functioning systems, but they lack buy-in and some crucial components. As such, there was a general consensus that the value of M&E is not seen within institutions and, therefore, it is sidelined and not well utilised. The main challenges include: lack of funding, the absence of prioritisation for and integration of M&E across and within institutions and the lack of human resources – technical capacity and experience – for this area.

Box 4

REPOA began operating in early 1995 and is now one of the leading independent research institutions in Tanzania specialising in policy research on socio-economic and development issues. According to Dr. Paula Tibandebage, the institute's Director of Research on Social Protection, REPOA's research agenda is concerned with pro-poor growth and poverty reduction. Research themes include: growth and development, governance and social protection. Gender, environment and technology are cross-cutting in all the three themes. Another issue that cuts across REPOA's work is the focus on translating research into policy action. Dr. Tibandebage revealed that it has often been a challenge for REPOA to assess the impact of its work. However, over the past few years, REPOA has embarked on a plan that aims to link researchers to policy makers, not as a one off, but as part of a sustained campaign. As such, REPOA is now actively involved in:

- publishing targeted policy briefs;
- the set-up of policy dialogue workshops through which researchers, practitioners and policymakers are brought together;
- targeted research and capacity building efforts that are aimed at the users and producers of research including policymakers; and
- pushing for the use of the REPOA website as a go to place for the latest research on the welfare of Tanzanians.

Participants made several suggestions for improving M&E in their institutions, highlighting the need for M&E to be elaborated clearly at the planning stage and to be included in policy development. They also highlighted the need for adequate funding, and for staff training and capacity building. One crucial suggestion was for the creation of an enabling environment where M&E is prioritised within institutions.

COHRED will work towards developing M&E training and capacity building for country partners in 2013. This work will also address how to communicate the importance of M&E to decision makers.



Nilsa de Deus (right) of Mozambique's National Institute of Health leads a discussion at the workshop

(viii) In relation to the aforementioned, another take-away message from the workshop was on the issue of effective communication of research outcomes to decision makers. Improved communications with policy-makers was identified as being crucial for genuine action, social change and policy-making. In line with this, improved engagements with the media and the use of human-interest approaches to telling stories was identified as being important in terms of getting the public interested in the research work and it's eventual outcomes. It was also argued that it is important to advocate and lobby to the various target groups – policymakers, business, media and others.

As researchers have not been trained as lobbyists, greater emphasis on developing effective lobbying techniques within research institutions would be helpful. Because the media is a powerful 'lobby', media participants present at the meeting highly recommended including journalists in research dissemination events and mentoring young journalists as part of research

programmes. Participants also discussed whether 'third party' knowledge brokers or 'think tanks' could be brought into the communications process in order to facilitate information flow between researchers and policy makers and the development of key policy and programme messages. See Box 4 on how REPOA works with key stakeholders to engage directly with policy decision makers.

(ix) With regard to strengthening regional capacity, agencies and institutions that are attached to Regional Economic Communities were called upon to increase their lobbying efforts to Ministers, Heads of State and business leaders for more investments into research and development as per the continental agreements. In addition, some countries such as Senegal and Tanzania that have made tangible strides in terms of meeting their research for health targets, were also called upon to share their knowledge and experiences and to also support those that have not yet started the process of building up their research for health systems.



Because research and innovation are crucial for the development of an equitable health system and indeed for the broader development of a country, they should be viewed from a systems perspective, with a long-term view of strengthening governance capacity. Issues concerning objectives, structures, stakeholders, processes, cultures and outcomes of research for health that are geared towards developing equity in health need to be considered collectively and not as single elements. To increase development, it is essential for countries to map out their own research systems for health, priorities and agendas with a national body assuming a stewardship role.

To strengthen national research systems for health, it is important not only to evaluate the performance of the system, but also to clearly communicate the aims, objectives and impact of the systems approach to health. Countries also need to identify partners and funding resources to carry this work forward. One approach for improving national research systems for health is to evaluate performance. It is important to develop relevant indicators and targets as part of monitoring and evaluation and for future planning. 'Buy-in' from the government is fundamental in order to develop an environment that supports research and innovation. A strategy for ensuring buy-in is to communicate the aims, objectives and impact of a systems approach to health and the link between research and innovation with social and development outcomes. Lastly, countries need support from regional blocs, entities and institutions for establishing and sustaining effective research for health governance systems.

#### LIST OF PARTICIPANTS

Fatima Abacassamo, UEM, Mozambique Salim Abdulla, Ifakara Health Institute, Tanzania Jude Aidam, WAHO, Burkina Faso Carlitos Bale, Bandim Health Project, Guinea Bissau Donald Bash Taqi, Ministry of Health, Sierra Leone Rahma Bashary, COSTECH, Tanzania Luke Bawo, Ministry of Health and Social Welfare, Liberia Joachim Buwembo, Journalist, Kenya Samba Cor Sarr, MoH Senegal, Senegal Matildah Chithila-Munthali, National Commission for Science and Technology, Malawi Nilsa de Deus, INS, Mozambique Kathy Douglas, COHRED, Switzerland Hulda Gideon Mapunjo, COSTECH, Tanzania Joyce K. Ikingura, NIMR, Tanzania Sonali Johnson, COHRED, Switzerland

Willie Kachaka, MoH, Malawi Andrew Kanyegirire, COHRED, Switzerland Pilate Khulamani, MoH, Botswana Bruno Kubata, NEPAD, Kenya Mwele Malecela, NIMR, Tanzania Julius Massaga, NIMR, Tanzania Leonard Mboera, NIMR, Tanzania Boitumelo Mokgatla, COHRED, Botswana Irene Mremi, NIMR, Tanzania Hassan Mshinda, COSTECH, Tanzania Nicholas Nyange, COSTECH, Tanzania Phillip Odonkor, University of Namibia, Namibia Paul Smithson, Ifakara Health Institute, Tanzania Emanuel Souvairan, COHRED, Switzerland Paula Tibandebage, REPOA, Tanzania Neema Tindamanyire, COSTECH, Tanzania

## **Council on Health Research for Development (COHRED)**

1–5 Route des Morillons P.O. Box 2100 1211 Geneva 2 Switzerland Tel. +41 22 591 89 00 Fax +41 22 591 89 10

Email: cohred@cohred.org

In Latin America
Contact: Dr Francisco Becerra-Posada
P.O. Box 22–151
Tlalpan
Mexico DF
Mexico 14091
Tel. +52 55 46 22 54 41
Email: becerra@cohred.org

## In Africa

Contact: Boitumelo Mokgtla-Moipolai Botswana Innovation Hub Maranyane House, BOTEC Building Plot 50654, Machel Drive, Fair Grounds Gaborone Botswana

In South Africa Contact: Debbie Marais School of Psychology University of KwaZulu-Natal P/Bag X01, Scottsville Pietermaritzburg, 3209 South Africa Tel: +27 33 260 6135

Email: marais@cohred.org





