Health research policy: The keystone of an effective national health research system

Whatever the level of development of its health research system, every country will benefit from having a strong health research policy. A well-designed health policy framework is an enabler and a driver for the national health research effort to have a positive impact on national development – whether in health, health services performance, health equity, or for more general social and economic development.

Andrew Kennedy and Carel IJsselmuiden

Background
A number of countries have recognised the important role that a research policy framework can play in pulling together the often diffuse components of their National Health Research System (NHRS) and in focusing the national research effort on national goals – be these in addressing health priorities, health system priorities, equity or in socio-economic development.

In many countries, the NHRS functions almost in an ‘ad hoc’ manner. Many of its components operate in isolation – often not even realising they are part of a research system – rather than working towards common national objectives in research and development. Health research is very often commissioned and conducted with little, if any, coordination or consultation with the range of users that might act on the findings to improve health, increase the effectiveness of health systems, reduce inequity or stimulate economic growth. In this context, making the transition from an ‘informal’ NHRS to a coordinated national system can help to maximise the benefits that can be achieved from health research. A solid health research policy framework is a cornerstone of the NHRS.

NHRS Development
COHRED’s approach to strengthening national health research systems emphasises the establishment or improvement of three essential components that – collectively – form the basis from which a country’s system of health research can make this transition from an ‘ad hoc’ to a ‘managed’ system.

Under this ‘trinity’, every country needs:

- A structure for the governance and management of research – there needs to be a body or bodies that can effect, impact, evaluate, coordinate, finance, guide, build capacity, negotiate and mediate.
- A credibly established and updated set of national health research priorities without which a meaningful focus is possible, neither by countries nor external research sponsors and institutions.
- A health research policy framework.

National Health Research Policy Framework
A health research policy – or rather a policy framework – provides the formal platform from which to define the goals of the national research effort and identify the structures and means of achieving such goals. Policies in ministries of Health, Science
and Technology, Education – and others involved with research – regulate the establishment of research councils, the relationship between applied and basic science, strategic plans for increasing capacity, for ethics review committees, for communication of research results, and for international liaison.

A good policy framework will define the extent of original research that is needed to address nationally relevant priorities in relation to ‘translation’ of research done elsewhere. It will also locate ‘research for health’ as a national endeavour, bridging the traditional divisions between health and other sectors. Ultimately, the policy framework becomes both an enabler and a driver for the national health research effort to deliver to maximum potential towards national development – whether in health, health services performance, health equity, or more general social and economic development.

**National Health Research Policy Development**

Despite great disparities in income and development between nations, the questions that countries face in research for health are remarkably similar. National research policies will differ in their ability to respond comprehensively to challenges and will vary depending on the national context within which the NHRS operates. The core issues that need to be addressed are similar for all. For example, the linkage of health research to the broader Science and Technology sector is an issue in every country. Capacity building in the education sector needs to be in line with the needs in the research and development sector. In addition, protection of intellectual property, and the use of research results to pursue health equity and reduce poverty across the population is an issue of relevance to all countries.

To assist countries to develop rational health research policies or policy frameworks, COHRED has developed a process and technical support to assist countries in adapting existing health research policies and policy templates to fit their own particular conditions.

**Global support for NHRS development**

‘Bamako 2008’, the Global Ministerial Forum on Research for Health planned for November 2008 in Mali, provides an excellent opportunity to focus on providing good health policy frameworks for all countries – no matter how poor – so that health research can take its proper place as a keystone for development. The Global Ministerial Forum is a joint initiative of WHO, World Bank, Global Forum for Health Research, UNESCO.
Changing views and needs for health research communication in low and middle income countries

The research communication programme of COHRED and Makerere University Institute of Public Health is a joint learning activity. It aims to better understand the needs and challenges for health research communication in developing countries and use this understanding to enhance the impact of research on health, equity and development.

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The way researchers and managers of research programmes view communication has gradually evolved over the past decades. Until recently, researchers saw little value in investing in communicating the findings of their research to different audiences. What really mattered, they said, is to have recognition of peers through journals and conferences. While many researchers are still of this opinion, a growing number of them – especially those working in development – recognise that if they do not engage more actively with the potential users of their research, little, if any, of their thinking will create real change. The idea of ‘communication’ is also evolving from that of publication and promotion, to partnership, engagement and mutual learning – between researcher and ultimate beneficiary of research. There is an increasing recognition of the value of ‘brokers’ to transfer communication between health researchers and potential research users. Interdisciplinary collaborations could profitably extend to the theory, design, and evaluation – not only of research – but also of health research communication strategies.

Another driver for change in science and health research communication is increased public awareness and effectiveness of civil society organisations in demanding research and early reporting, and the impact they have on research budget allocations and ethical aspects of research done. This has happened especially in the United States, less so in Europe, and to and even lesser extent in developing countries. Although in some of the ‘innovative developing countries’, NGOs are increasingly becoming a player – both in producing communication and demanding it.

Advances in communication of research, policy analysis and scientific studies offer an extensive range of theoretical and empirical perspectives to draw on. But there are no reports of successful communication strategies in the health research sector in Uganda.1 2 “There are few communication avenues in Uganda for health research. Few researchers are confident enough to disseminate their findings,” says Dr. Christine Ziraabamuzale, Head of the Department of Community Health and Behavioral Sciences at Makerere University Institute of Public Health (MUIPH). Perhaps, the REACH initiative in East Africa is a first deliberate attempt to create communication on health and health research between researchers and policy makers. Beyond this, there is very little work done on using research communication ... to make research work for everyone.

The Council on Health Research for Development (COHRED) and the Makerere University Institute of Public Health MUIPH are piloting a health research communication activity that aims to understand and optimise research communication as the catalyst in health research for development. The project intends linking the core actors in the research process to create a “feedback loop” – from question, to research, to action, to evaluation, to new question. The project, which will be upgraded to a programme in 2007, given its early successes, brings the
research process closer to policy makers, communities (a term which includes various user and interest groups), the media and other researchers.

This is a joint learning activity between COHRED and Makerere. It aims to better understand the communications needs and challenges for developing country health research institutes – and to promote opportunities for learning and capacity building between them. A Ugandan coordinator is attached to the MUIPH to facilitate the process of problem solving and communication strategy development for the Institute. The process is guided by a cross-departmental advisory group.

In its start-up phase this year, the MUIPH investigated how the Institute communicates research internally and externally. It highlights ways in which it can evolve from today’s loosely coordinated and irregular activity to become a core strategic priority for the institute.

The strategy and action plan process is informed by interviews with key informants – research programme leaders, managers, external stakeholders – and several focus groups. The groups brought together research project teams and researchers on topics, including: how the Institute can better manage its information and harvest the knowledge it generates; how to better link with users of the research as a part of the project cycle; and what kinds of information products and services can best inform and influence potential users of the research. Members of the media, communities’ and policy makers were also engaged to better understand how they can be linked to Makerere’s research process.

These investigations reveal a number of important issues:

• Researchers, media and communities are trying to reach each other but these efforts are ill coordinated.
• There is a strong desire among the researchers and managers in the Institute to understand how the different parties receive and pass on information to other groups.
• The media is a powerful ally that public health professionals are not using.
• Members of a community can be active participants in health research. If properly prepared they can support researchers, for example, by looking critically at the local situation and questioning why certain things are (or are not) happening.

The real proof of the enthusiasm for this project will be in its implementation and the degree to which the Institute’s management is prepared to invest in new approaches that these consultations are highlighting. As it moves forward in 2007, the project team is synthesising results of the first year’s investigation and engaging with other institutes interested in learning from this experience.

The ‘upgrading’ from project to programme means that the learning done with MUIPH can be transferred to other institutes and countries – initially in East Africa. From there, we expect to grow a ‘community of practice’ to provide professionals with direct access to others’ experiences, to improve research communication as a key competency of national health research systems, and a crucial component of health research for development.

4 A community is seen as any group of people with a common need in health or health research (e.g. mothers, members of a profession, workers in a specific sector, etc.).
5 COHRED Record Paper on research communication in preparation documents these experiences.
Health Research Web

Health Research Web is a new knowledge platform initiated by COHRED in 2006 to provide essential information on health research systems at country level. It is intended to evolve into an authoritative resource on health research for low and middle income countries that is used, owned and enhanced by its users. It is a tool for development agencies to engage more responsibly and effectively with health research in low- and middle-income countries; and one for health researchers to increase their accountability and relevance to health priorities.

Carel IJsselmuiden

The vision: COHRED facilitated – user owned

Health Research Web is a new service that aims to provide access to detailed information on health research systems in low and middle income countries. It is a response to needs expressed to COHRED – by country partners, health research professionals and donor agencies – for more, better and updated information on health research systems and management at the regional and country level.

Today there is no organised access to information on health research in low and middle income countries – that can be used by the government, research sector, and other potential users – to learn from own experiences in developing their health research systems, policies or programmes. Likewise, development and donor agencies lack an overview of others’ funding activities to improve the quality and focus of their health research activities in low income countries. Northern researchers, looking for research partners in low and middle income countries, usually work with a small number of institutions, as there is no systematic source of research capacity in developing countries that exists for the developed world. And, ‘organised civil society’ – including NGOs involved in research, science academies, research councils, or professional organisations – has no way of holding government accountable for progress in developing national research systems, institutions, and policies.

Currently in its pilot phase, Health Research Web contains basic health research information from countries across Africa and Asia. This includes key contacts in ministries, universities and medical research councils. It also posts papers and studies on national health research – many from the COHRED archives of past work on Essential National Health Research in these countries. This is a starting point – made with minimal resources to help COHRED better understand how to build this platform, and how to best increase ownership of the data by countries – and other users whose information appears in Health Research Web.

For this small beginning, Health Research Web is now ready to be scaled up. As it grows the platform will expand its services and the depth of information offered. As more information is added, it will allow for critical comparative analyses that assist countries to: see how they perform; document ‘best practices’ and create specialised areas of knowledge – for example, on ‘managing’ national health research systems, or on measuring health research system performance.

Review and quality assurance

COHRED’s concept for Health Research Web is to offer the technical platform and manage the editorial process, collaboratively with users. The content remains a global public good that is owned by those who contribute and use it. The design of Health
Health Research Web is inspired by ‘Wikipedia’ which demonstrates the incredible capacity of the web to enhance global learning – provided there is a platform and a solid and transparent editorial system.

Part of the quality of Health Research Web will be assured by engaging national individuals and institutions in the provision, validation and verification of the information contained. As country pages grow, it is expected that they will retain a common core of information, but also bring specific local content about a country’s current health research situation.

The first stage of country partnerships is planned for 2007. We have an agreement with the National Institute of Public Health in Vientiane, Lao PDR, to help kick-start data collection in Southeast Asia. The COHRED-NPAD memorandum of agreement will be used to work with African countries. For 2007 an in-depth country-based information is being activated, focusing on at least five sub-Saharan countries and possibly more. Collaboration with WHO-AFRO and PAHO is also being negotiated.

**Health Research Web: donor mapping – example of a tool for activating the Paris Declaration in relation to health research.**

Health Research Web is created primarily as a resource for and by countries. At the same time, the international donor community is also an important group that can benefit directly from higher quality information about health research policies and systems at country level. Health Research Web aims to provide information that encourages better coordination and increased effectiveness of donor programmes – and the opportunity for better alignment of donor programmes with local health research needs and national priorities. Sida/SAREC is the first donor agency interested in funding this part of Health Research Web. A 5-country- 8 donor project is expected to start in 2007.

In a next phase, with much more data available on health research systems, Health Research Web will evolve into an analytical and policy shaping tool. It will provide inputs for real-time meta-analysis – across-regions and countries. Some analysis will be done by COHRED. But the core information will be available as an international public good to all who need to use it.

These comprehensive services – and more – are not yet available today. Six months into the life of Health Research Web, it is still a ‘static’ website. But, do not judge it on what you see but on its potential. If the growth of the Wikipedia is anything to go by, the extent and utility of Health Research Web will increase exponentially – becoming a unique resource to let health research work for development!
Health research in low and middle income countries is dependent on financial and technical support from high income countries. Without this support, the available national resources hardly pay for salaries and are often insufficient to maintain the infrastructure needed to purchase equipment and consumables.

Northern support for health and medical research is often tied to narrow product and technology goals, prioritised by research donors or by the research institution that obtained the grant from a research sponsor. More often than not, this funding is provided with tight time constraints. While this research may focus on the host country’s health priorities, chances are that it is more closely linked to global priorities, with a poor correlation to national health research needs. In addition, research support provided through developed country research institutions is usually limited to research for ‘knowledge generation’ – which usually does not sufficiently address policy relevant or implementation research.

Consequently, while research support provided by the North is essential for research in developing countries, it is not well matched with the research and research system needs of recipient countries, and has little appeal to health policy and decision makers in these countries.

Another way of examining this problem is not to study the focus, magnitude and limitations of northern sponsored research in developing countries, but to reflect on which studies are not done because of an absent or weak national health research system (NHRS) and on which fields of study have scarce international funding?

Here are some examples of the research that was probably not sufficiently done in 2006:

- How to improve the availability and functionality of prostheses for disabled children?
- What human resources are needed to optimally develop health research in the poorest countries?
- What are the health impacts of environmental pollution in large peri-urban areas in Africa?
- How do salary levels paid by UN agencies or externally funded research programmes draw scarce human resources out of research systems in developing countries?
- To what extent do vertical research programmes encourage local scientists to remain in their countries of origin and their fields of specialisation?
- What investments do governments of low income countries need to make in ‘research for health’ before they start seeing benefits?
- Have the externally funded research programmes contributed to increased health equity in a country?

Global health initiatives and vertical research programmes seldom consider countries’ specific research needs. With a slight change in perspective, they can bring lasting improvements to national health research systems, and still achieve their original goals.

Carel IJsselmuiden

Responsible Vertical Programming

Ways for donors and global health initiatives to comply with the Paris Declaration on Aid Effectiveness – in the context of research for health.
Generally speaking, funding is only available for so-called ‘global priorities’ and donor countries’ areas of interest. This leaves major gaps in areas of study, including social science, health services research, environmental health research, and research – not leading to drug development – but to other interventions that are essential for appropriate health care provision.

Donor funding is essential for research to happen in developing countries, but it also has the potential to fragment and remove scarce resources available in these fragile research systems, instead allocating these funds to globally determined ‘priority’ research. One major cause of this phenomenon is that donors and research sponsoring organisations rarely consult each other adequately – and if they do, they remain tied to the more narrow objectives of their own funders.

The second party in the international research enterprise is the government and its academic, parastatal and non-governmental organisations involved in health research. In many low-income countries – judging by the evidence used for policy change – government departments focus on international (often WHO endorsed) evidence and not necessarily on local evidence. As a result, governments do not create an environment in which research for health can flourish: one example is the very low number of countries that provide a minimum of internal resources (e.g. 2% of core health programming budget, for example) to establish at least a core of a research infrastructure.

On their side, few countries make it easy for outside research sponsoring agencies to explicitly align with national health priorities. Few countries have the core components of a ‘national health research system’ in place. This core includes: 1) credibly and inclusively prepared health research priorities, that are regularly updated and aligned with national health priorities; 2) a health research policy framework – within health or jointly with the science and technology sectors – that addresses the basic issues of funding, focus, accountability, and capacity building; and 3) a mechanism or structure to ‘manage’ the health research done by and in countries so that it is relevant, excellent and locally sustainable.

The essence of COHRED’s ‘Responsible Vertical Programming’ initiative is to bring together these two sides of the same problem. This will enhance donors’ and research sponsors’ ability to align with national health research priorities. It also allows countries to optimise the use of research to produce not only products and technologies, but also health equity, increases in research system capacity, and socio-economic development.

‘Responsible Vertical Programming’ can be seen as a way to put in to practice the Paris Declaration on Aid Effectiveness of 2005 in the context of health research. In its work in this area, COHRED develops methods and approaches with partners to help understand how global health initiatives and ‘vertical research programmes’ can – with minor modifications – optimise the capacity of the national health research systems with which they interface. In this way, a ‘vertical’ programme that is put in place ‘responsibly’ can achieve its goals and strengthen the counterpart national health research system at the same time. And achieve this – without necessarily increasing the cost to deliver on their primary focus: disease or condition-specific product and technology development.

This is the challenge for all partners involved in health research. It is not only the product but also the developmental potential of health research that is core to development.
Priority setting for health research remains a key strategy to ensure that research investments focus on countries’ priority health concerns. But despite general acknowledgement of the need for countries to set clear research priorities that support national public health goals, there are few documented success stories.

Most literature focuses on methods and tools used to set institutional or national priorities. But priority setting can only become an effective catalyst for change if the focus shifts from methods and tools to defining a process for managing and measuring the progress of national health research directions.

Given the absence of a structured ‘body of knowledge’ on health research priority setting, health research managers can tap experiential knowledge gained elsewhere to better understand how they can best set, implement, update and keep alive a health research agenda in their own countries. A great source is the experience of colleagues in other developing countries – or in high income countries, for that matter – that have put in action approaches that fit their national realities. To succeed, these professionals require practical knowledge in areas, including: how to deal with inequity in resource allocation in situations where available resources cover only part of the priority agenda; ways of avoiding inequity in the priority setting process; and how to find a balance between priorities arising from social demand (communities, media), from scientific evidence and of ‘unheard voices’; and how to have a good interface between national and international agendas. The problem is, there is no place in the world where this experience is convened to become useful to others.

In 2007, COHRED will attempt to mobilise access to experience and knowledge between countries by testing a learning spiral approach for priority setting. The goal is to help health research managers fill knowledge gaps by connecting them to the expertise of counterparts in other locations.

This approach includes structured discussions (on-line or face-to-face) between experts and practitioners. Interactions are ‘validated’ – or reviewed – in an agreed process to ensure that the information presented is objective and of a high standard of reflection. The learning process will actively engage experts in a structured discussion. These experts can be anyone who has actively managed a priority setting process in his or her institution or country. The goal of this mutual learning is to produce information that is balanced and useful. It does not seek to reach consensus, although this may arise.

The key to effective health research priority setting is not so much the tool but the ongoing process of managing action and measuring progress. COHRED is starting a ‘learning spiral’ that will encourage global learning in this field by all involved in health research priority setting – especially in low and middle income countries.

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The key aspects of the learning spiral currently being explored are:

- How to best engage partners in learning and sharing of experience; and what can be practically achieved in a mix of electronic and face-to-face interactions and consultations?
- What formats for learning, sharing and synthesis of information are most effective?
- What skills do COHRED project leaders need to maximise learning with partners in their work?
- What process should be employed to ensure that information resulting from learning exchanges is of a high standard? This includes mechanisms for reviewing summarised information by expert groups; through an internal peer review; posting and commenting on summarised information in a web area or using the editorial processes inspired by ‘Wikipedia’ to support an objective focus.

The validated information generated through these interactions will take various forms, to be prepared at appropriate learning points in a spiral. Some outputs will be experiences posted in a web learning space. Others will be discussion papers, peer reviewed articles or practical materials such as manuals or guidelines.

But the real added value of this approach lies beyond published outputs. It is the new relationships built between a widening group of experts as they examine new aspects of priority setting and seek experience from one another.

As one country expert commented in a recent COHRED-facilitated learning session on priority setting: ‘Setting priorities is about power, willingness, leadership and money’. COHRED believes that access to validated experiential knowledge will help to better understand power relations, people’s interests and strategies for resource allocation. This will result in a credible resource of good practice that provides leaders with ammunition they need to gain broad commitment for priority setting processes – to improve health and well-being in their countries.

In line with its character as an ‘enabling’ organisation, COHRED will offer the platform for this global learning to happen, and will facilitate the quality control process. The content and body of knowledge will be a shared public good, belonging to all those contributing in this field, worldwide.
Research for health in Latin America

Health research has not been considered a priority in the health reform plans of most Latin American countries and investment in the sector is generally lower than it should be. Recent political developments and the emergence of regional leaders in the sector are an opportunity for health research to gain momentum in the region.

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In the report on the State of Science presented by the Iberoamerican Network on Science and Technology Indicators in 2006, the investment of Latin American and Caribbean countries to Science and Technology (S&T) is estimated at 1.3% of the world’s S&T investment. This figure for 2003 showed a decrease compared to 1.6% in 1994. Four countries in the region – Argentina, Brazil, Chile and Mexico – contribute 90% of total S&T investment of the region. The study results also indicate a positive relationship between the S&T investment (as a percentage of GDP) and the Human Development Index of the country as elaborated by UNDP. Countries such as Honduras, Bolivia and Nicaragua find themselves at the negative end of this correlation.

It is expected that the investments in health research follow a similar trend to S&T. This illustrates the limited contribution, in terms of financial investment, of the region to global S&T, but also shows the big disparities between countries within the region. To date, in most countries of the region, health research has not been considered a priority in the reform plans of the health sector. The recent political move to the left in many Latin American countries (Argentina, Bolivia, Venezuela, Nicaragua and Uruguay) show governments with a stronger commitment for investment in social sectors, including health and education. This opens a new opportunity to raise awareness of the importance of health research for the development of sustainable health systems, focused on priority health issues and on the need to increase national investment in the research systems.

In addition to the political commitment needed to advance research for health, it is important that countries ‘manage’ their health research portfolio – just as they manage other resources for equity and development. A well managed research system supports the development of national health research policies; it guides an inclusive priority setting process and ensures that human and financial resources are available to address the agenda. In shaping a national research for health agenda, flexibility is also needed to address economic, political, social and cultural differences between countries. Effective research communication is yet another facet of a well managed national health research system.

1 RICYT, See: http://www.ricyt.edu.ar/
Brazil is a good example of a government that has initiated many activities to better manage its health research system. Until 2003, there was no national policy for science and technology in health, and no priority health research agenda. The choice of health research topics was left mostly to scientists. Consequently, the Ministry of Health rarely influenced major decisions in health research investments and priorities despite the fact that the resources for health research were predominantly provided by the public sector. In 2003, health policymakers decided to give more importance to health research and transform the old scenario.

A Department of Science and Technology was established within the Ministry of Health. National policies for Science, Technology and Innovation in Health were developed, based on the principles of health equity and ethics. A national agenda for health research was also developed to engage policy-makers from different sectors (health, education and Science and Technology), researchers and members of the community. These reforms have placed the Brazilian Ministry of Health at the center of health research in the country. Its role now extends from identifying research priorities to developing approaches for encouraging use of research-based information. A key challenge for Brazil is to ensure that this new approach remains the accepted practice for defining and managing nation health research.

As part of its commitment to regional development, Brazil’s expertise and experience benefits other countries in Latin America, and even in Lusophone Africa, for example by collaborating on reviews of areas where changes and improvements can be made and in generating joint action following the review. “South-to-south collaboration” in the region is a strategy that can advance research for health in the entire region. Likewise the current political changes in Latin America can provide additional impetus to advocate and work towards increased investments in research for health, both from national, international and regional sources.