COHRED’s perspective on strengthening Health Research Systems internationally

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I. Background

Health research is a relatively late contributor to national and international strategies for development of low and middle income countries, and, indeed, to development of low income population groups generally. Health itself was seen as a ‘cost’ rather than as an ‘investment’ in development until the World Bank’s 1993 annual report outlined unambiguously the interrelationship between health and development. Subsequently, the works of Amartya Sen re-emphasized what had been clear to many health professionals working in developing countries already, namely, that health is a core component of development, and improving health per se therefore is a developmental activity.

Defining ‘health’ is crucial to understanding the potential benefits its achievement has for development. The classic WHO definition of health as ‘not merely the absence of disease or infirmity, but a state of complete physical, mental, and social well-being’ provides the very wide view of health which, to be achieved, requires action in and from many parts of society, government, and private sector. Even when focusing more narrowly on the physical and mental aspects of health, however, the benefits of being healthy and the benefits of activities needed to achieve health are obviously linked to increased economic, educational and national development.

From this definition of health, however, it is not immediately clear that this definition applies as much to individuals as it does to groups and societies. While health in individuals may be defined as the ‘absence or presence of disease or infirmity’, health in groups and nations is more expressed with epidemiological measures such as frequency, prevalence and incidence, population attributable risk, and burden of disease. Achievement of health in the context of populations is NOT merely reducing disease, but doing so in ways that reduce the inequities between groups in the population. ‘Health equity’ becomes a core characteristic of population health, a statement that is not just based on a human rights approach, but also on the economic assessments of Sen and the utilitarian approach of public health. Whereas ‘averages’ can show progress on a population basis, the full potential of health as a strategy to development does not become clear unless health improvements result in greater equity. It is therefore appropriate that Institutes of Public Health reflect on equity in health, as it is here that we find the tools to measure inequity and, hopefully, to design appropriate interventions to promote health equity.

While the link between health and development, and health equity and development may be intuitive, the link between health research to achieving this may be less clear. Partly, this is caused because ‘health research’ is often perceived to consist mostly of drug and technology development while the health and development needs in low income countries often seem to be of such nature that no new research is required: ‘solutions exist – they just need to be implemented’. The World Health Organization’s promotion of the ‘Know-Do Gap’ concept to solving many of the health problems in the south is a good example of this perception.

Of course, there are many known drugs, technologies and interventions available that – if effectively implemented – can make a huge difference to health of individuals and groups in low and middle income countries. Yet, it is the very understanding of why such effective interventions have not been implemented, or have been implemented but were found not to deliver the anticipated reduction in burden of disease, that are at the core of health research.

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The rationale for investing in research in low and middle income countries could start here: essentially a question of knowledge translation – using existing research results, adapting and modifying them for local use, measuring their impact, and re-designing products, technologies or systems to maximize local effectiveness.

In many low-income countries, the mere use of research to achieve ‘import substitution’ and ‘foreign currency savings’ has proven to be tremendously relevant to national research capacity development. It has certainly applied in many so-called ‘innovative developing countries’ – India, South Africa, Brazil – and has even been crucial in the development of many of the current and emerging economic giants in the world.

Health research, therefore, can focus on health products, technologies and interventions aimed at specific conditions and illnesses. It can also focus on how the health system performs and can maximize its impact – usually termed ‘health systems research’. It certainly should include social, ethical, and cultural research related to research and to intervention uptake and to prevention potential. But – as previous paragraph shows – there are at least two distinct additional reasons why all countries should invest in health research:

1. Firstly, to address health system performance, to translate or develop interventions to national health priorities that do not benefit from achieving ‘global’ status, and to maximize the achievement of equity in health through health interventions, locally resources are required as there will be very little international financial research available for this type of research;

2. And, secondly, there are many indirect benefits to having a vibrant health research environment. Health research may become an economic sector on its own, leading to employment, careers, export generation, and – potentially – encouraging skilled personnel to remain in low income countries. It may lead to a ‘culture of research’ in which research demand increases, policy formulation becomes more evidence-based, and equity becomes entrenched. It is likely to be able to address ‘cross-sectoral’ health problems, such as traffic accidents, environmental health, and violence. And, finally, it may lead to improvements in the educational sectors as the need for research capability grows, and it may even place pressure on the provision of utilities, for example, as competitiveness with global research enterprise requires upgrading of the infrastructure in which research takes place. In short, investing in health research will have effects well beyond the direct improvement in health of individuals: it can be a dynamo for national development.

Given these potentials of health research, we are slowly seeing a move from the concepts of ‘health research’ and ‘health research for development’ towards ‘research for health’.

In terms of focusing on (health) research as a key to development of low and middle income countries, it is no surprise therefore that:

- what started in 1990 with the Commission on Health Research for Development report and resulted in the establishment of COHRED, with much involvement and support of prominent Mexicans,
- and continued with the creation of the Global Forum for Health Research – that co-hosted a ministerial summit in 2004 with the WHO and COHRED, again with prominent support from Mexico,
- and with the start-up of the Alliance for Health Systems and Policy Research in 2000, where yet another Mexican played the key role in its growth over the first five years,
- is gaining even further momentum now. Beyond the 2004 Ministerial Summit in Mexico (Knowledge for Better Health),
- there have been resolutions of the World Health Assembly to restructure research also within the WHO;

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• there have been resolutions of African countries, first in Accra, Ghana, in June 2006 – in which health research is firmly placed on the agendas of 17 countries,
• then in Addis Ababa in January 2007, in which African ministers of Science and Technology commit themselves to substantial elevation of science and technology as part of development.
• In Latin America, a South American Ministers of Health 5th Meeting was held on March 22nd, 2006, in Florianopolis- Brazil, during which the Ministers of Argentina, Bolivia, Brazil, Ecuador, Guyana, Paraguay, Peru, Suriname, Uruguay and Venezuela focused on South American cooperation networks in the health field and requested the organization of a workshop involving institutes and policy-makers committed to science and technology in health at the South America.
• This workshop is now in preparation, among others with PAHO, Brazil Ministry of Health, COHRED, the Global Forum and two other Latin American countries (Mexico and El Salvador) who will meet even during this meeting in Cuernavaca.
• And, the next 4-yearly, global ministerial meeting (on ‘research for health’) is in preparation for November 2008, in Bamako, Mali. The four partners, WHO, World Bank, Global Forum for Health Research, and COHRED are joined this time by UNESCO to emphasize the link between ‘health research’ and the ‘science and technology’ sector.

2. National Health Research Systems (NHRS)

A recent quote (anonymous) printed on the website of SciDev.Net reads ‘science is too important to be left to scientists’. Thinking about this, COHRED would like to add ‘or to politicians, for that matter’. The core significance of this statement, in the context of research for development, is that the potential benefits of research for health, equity or development are highly unlikely optimized without a process that guides (health) research towards achieving these goals. ‘Curiosity-driven’ research is, on its own, unable to adequately address issues of equity, of diseases that affect the poor, of national priority, or of economic and social development. At the same time, research driven by narrow political goals is often unable to address issues challenging the status quo or problems requiring long-term (beyond election spans) research investments. And neither of these can adequately deal with ‘high risk research’, research into emergencies, or unpopular research – including health equity related research. Of course, in private sector research, this is nothing new … product development does not happen by chance!

To achieve a more coherent, systematic, and goal oriented research endeavour in countries that can maximize the impact of (health) research on national development, there has to be a way in which countries can coordinate, guide, finance, conduct, support, evaluate and ‘manage’ their research efforts for health. Each country needs to give structure to its research efforts to maximize its utility, and this structure has been termed the National Health Research System (NHRS).

The NHRS refers to the collective of actions, institutions, legislation, individuals and structures involved with health research. As a concept, it received prominence in the lead up to the 2000 Bangkok Conference on Health Research for Development, where COHRED consultations led to a first – functional – definition of the NHRS.

A National Health Research System has five core functions:

1. Governance and management (at national level);
2. Financing of health research;
3. Capacity building of the research system;
4. Knowledge generation and translation;
5. Knowledge utilisation

In a later definition used by WHO (ref), items 4 and 5 were merged, but otherwise no changes were made to the concept. Since 2000, however, little progress has been made in understanding the concept of the NHRS, its utility, how it can impact on health and development, nor on how it can be improved to help reach the objectives of health and health equity through research. The WHO held consultative meetings in the run up to the Mexico 2004 meeting, to design a ‘NHRS assessment’ framework. This was to be done in 12 countries and reported upon during the 2004 Ministerial Summit. However, many factors have resulted in this assessment framework still not being made public and – consequently – we have not had the benefit of careful ‘research into
research systems’ to advance our understanding of NHRS and what makes them work.

Towards operationalising NHRS

Given the urgent need for an operational approach towards maximizing the impact of research for health, equity and development in low and middle income countries, COHRED has started to prepare definitions, tools, approaches, and processes that enable countries to understand their own health research systems better and to take actions that are likely to increase the impact of (health) research on development.

What does it mean in practice?

1. In first instance, one needs to define, set the boundaries and scope, and know the components of a NHRS. To this end, there are three levels of intensity at which we can assess such systems:

   a. NHRS mapping: refers to a description of institutions, policies, structures, facilities, people involved with research and with managing research at national level – public, private; local, international; and formal and informal (ngo). It provides a ‘picture’ of the NHRS. On its own, such a description of the NHRS will already lead to action to streamline the system, for example, in terms of decision making about research financing in countries;

   b. NHRS profiling: with which we mean to measure and quantify the capacities, capabilities and limitations in the system components identified in the NHRS mapping effort;

   c. NHRS analysis: is the final step in understanding a NHRS: it relates to performance assessment of the system components and to what extent national goals are being achieved by the NHRS

2. Following the ‘assessment’ – which is often a sequential process in which later assessments build on earlier ones – specific interventions are identified, implemented and evaluated. In COHRED’s experience, most low and middle income countries lack the enabling environment in which (health) research can flourish and lack the tools to create such environments. In specific, COHRED’s approach will focus on

   a. As a minimum governance for the NHRS, any country needs the ‘trinity’ of enabling structures and political tools:

      i. There need to be national health research priorities, credibly set and updated; without this, there can be no national focus, no targeted financing, no alignment of researchers and research sponsors, and no harmonization of (external) donors around national priorities;

      ii. Secondly, there needs to be a national health research policy framework, dealing with the building and coordination of the essential components of the NHRS; and

      iii. Thirdly, there needs to be a mechanism(s) or structure(s) through with donors asked to align, researchers financed according to their relevance to national priorities, capacity is developed and, in general, through which the country can achieve those development goals that can be achieved through health research.

   b. Financing of health research becomes an immediate problem at this stage, as transforming the NHRS towards national goals will require (substantial) funding; key aspects include ensuring a maximum alignment of foreign (development aid / research) investments with national health research priorities in countries in which foreign aid constitutes the largest, sometimes only, investment in health research. Where there are substantial internal budgets, as is the case in Mexico, an explicit effort to measure actual expenditures against national development goals is often insightful.

   c. Lastly, once the NHRS is mapped and specific financing questions addressed, there is a growing list of specific and technical questio-
ns that need addressing: typically, questions relate to capacity building; intellectual property rights; science communication in countries; ethical review of research; technology transfer agreements in the case of international collaborative research; and many more.

3. COHRED

A detailed description of specific COHRED activities falls outside the scope of this paper. However, some characteristics may be useful to complete this paper and focus on future action in Latin America:

0. COHRED is an ‘enabling’ organisation, which means that we engage in advocacy, technical assistance, facilitation, support for innovations in health research systems, and provide a think tank on health research for development. Our activities should build countries, NHRS, and those engaging in health research (government, academia & research, ngo’s, and donors) in achieving their goals better;

1. COHRED sees itself as a ‘southern alliance with key northern partners’: one of the rare global health partnerships in which the control (the ‘Board’) consists for two-thirds of persons from developing countries. (Dr Suzanne Jacob Serruya has just joined us this year); south-south networking and collaboration to support NHRS is therefore key to our work and activities;

2. We develop tools, methods, approaches to assist countries to maximize the NHRS with focus on health, equity and development; these activities relate to working with individuals and institutions in countries, but also at global levels; good examples of the combination of local and global is ‘Health Research Web’;

3. We believe that our work is not only of relevance to Low and Middle Income Countries but even to development of low income population groups in high income countries, although we do not prioritize working there;

4. COHRED seeks actively to collaborate with global, regional and local institutions to further its work. The growing collaboration with the Global Forum for Health Research is a key consequence of this;

5. Lastly, as an example of COHRED’s work in Latin America, we convened a 2-day consultative meeting in Guatemala in 2006, attended by 10 people from across the continent, and facilitated by Dr Francesco Becerra. It showed a great divergence in sophistication on National Health Research System, as is no surprise. The meeting resulted in a call for a Latin American continental meeting to focus on National Health Research Systems in countries in Latin America, Hispanic Caribbean, and lusophone Africa. Brazil offered to host this meeting, and currently a Steering Committee of COHRED, PAHO, Brazil MOH, Global Forum for Health Research, Mexico and El Salvador is putting together an intensive NHRS focused programme for September 2007. The programme will include core aspects such as south-south collaboration and networking; capacity strengthening; donor alignment; and equity through health research. We hope to be able to contribute to better understanding by countries of their own systems, and we expect to be working more intensively with countries in the region and with PAHO and others towards realising the maximal potential of ‘research for health’ in Latin America.