

■ ESSAY

Why support National Health Research System development?

Good research requires good research systems.

Years after the recognition by the international health community of the importance of a well functioning health research system - as a catalyst to reducing poverty and improving to health equity in developing countries - the subject of how improvements can be practically achieved is back on the table. 'Systems' thinking – allied with practical approaches that decision makers can use to assess, improve and measure national health research – brings real opportunities for advancement.

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The concept of a National Health Research System (NHRS) appeared on the international agenda from preparatory work for the International Conference on Health Research for Development in Bangkok in 2000 (IOC 2001). Ten years after report of the Commission on Health Research for Development, it became clear that for countries to implement Essential National Health Research and improve health systems using the 'essential' evidence generated, that a more comprehensive framework was necessary to understand how research was coordinated, produced, translated and put into practice. The NHRS concept emerged during a period of intense debate on the functioning and evaluation of health systems and in an environment where 'systems' and 're-engineering' theories were being transferred into the health sector from the quality improvement field.

The role of evidence

A good NHRS model should define the system's underlying values, its primary aims and the key functions necessary for it to achieve these aims. It should emphasise the complex nature of the health research system in which many of the key actors and institutions do not consider themselves to be part of the health research system, but rather part of the wider health system, or of the science & technology or development sectors, or as part of international or private research systems.

In this light, decision makers within an NHRS often have little direct authority over the range of stakeholders that need to act if system reform is to result in sustainable health gains and reduced health inequity. Governance and management processes in this context are therefore more reliant than ever on good quality information and on transparent and inclusive evidence-based decision-making.

Approaches to research system evaluation

The growing recognition of the role that 'Research and Development' plays as a catalyst for socio-economic development has led to an increased investment in and demand for monitoring and evaluation of research and innovation systems. These efforts tend to focus on macro level indicators of inputs, specifically on financial and human inputs, and indicators of outputs usually research papers and patents (King 2004). Other efforts have sought to evaluate the research conducted in specific sectors of the economy, for example, the Research Assessment Exercise conducted within the UK public higher education sector (HEFCE 2006), and more detailed analyses have examined research sponsored by individual funders (Hanney 2004, Gaillard 2003, Coccia 2001).

Within the health sector there are two main streams of work that seek to

provide decision makers with evidence to assess the effectiveness of sponsored research and research systems. The first is the "Payback" model of Buxton and Hanney (Hanney 2004) which has been used by a number of funders (including, the UK NHS R&D program, Wellcome Trust, Canadian Institutes of Health Research) to assess the range of benefits generated from their investments in health research.

The second stream of work, done by the World Health Organisation and based on the 'Functional Model' of NHRS (IOC 2001), has developed an extensive set of indicators for 'international benchmarking' of health research systems (Pang 2003). This model has been used in WHO Health Research Assessment work with 13 low and middle-income countries (WHO 2006).

Other work in the health sector seeks to provide evidence on the performance of specific components of the research system, with a particular concentration on the use of research results by decision makers, practitioners and the public to change behavior and hence improve health outcomes (Invaer 2002, Grimshaw 2002, O'Connor 2003).

What is required?

The development of methods and tools for assessing systems and their impact on health has provided a considerable body of information that can help policy makers make

evidence-based decisions on improving health, health research and the health research system. Yet, the link between this information and actual evidence-informed policy is still often vague and indirect. In our view, the practical steps needed to connect research/information with impact include the following:

'Process vs tools'

As in setting national priorities, it is arguably the process of NHRS assessment that is more important than the tools, instruments or methods'. Multi-stakeholder involvement, transparency, regular review, and an opportunity to 'appeal' or 'lobby' are key to a credible assessment that can lead to a shared sense of ownership and, therefore, concerted action. Ownership of the process and results is a *sine qua non* for action.

'National vs Global focus'

No two countries will have the same NHRS. There will, of course, be common features, but the precise structure of the system, the power relations within it, the priorities for its development and the potential solutions to its underlying problems and gaps will differ considerably between countries.

This means that there cannot be a viable 'one size fits all' set of 'indicators' for NHRS assessment that national decision makers can 'take off the shelf'. On the other hand, there is no need for every country to develop an entirely new approach. Instead, COHRED will assist in developing an approach that allows decision makers to understand what is available, and, subsequently, to select a design that will provide them with the information they need to improve national systems. In this way, a fair balance between indicators needed for international comparisons and for regional advocacy, and indicators useful for local health research managers is

achieved, a balance we believe that is essential for NHRS assessment to become a 'living' part of health research systems.

Explicit goals of the NHRS

We can 'map' (describe research situation, actors, and institutions), and 'profile' (measure capacity) and 'analyse' (evaluate performance) of a national system, but without understanding exactly what a country wants to achieve with its NHRS makes assessments 'a shot in the dark'. Explicit goals can include: achieving health equity; improving health system access or quality; achieving specific disease control; or contributing to scientific or economic development.

For example, recent work from the World Bank demonstrates that unless health programs are explicitly designed to target the poor, investments in health frequently bypasses those in most need (Gwatkin 2005). Similarly, unless the NHRS is designed to produce evidence that can be used to reduce health inequities, then this evidence is difficult to produce. In our view, NHRS assessment without an explicit framework for evaluation in this case health equity and poverty reduction is not meaningful, risks becoming 'encyclopedical', and is unlikely to result in action.

'Communication'

A core feature of a successful health research system is its capacity to communicate. It is generally acknowledged that 'researchers need to communicate to policymakers'. In reality, the context is far more complicated. Communication also needs to happen between policymakers and researchers, communities and policymakers, communities and researchers, and in fact between all 'four' constituents (i.e. i) government, ii) researchers, iii) community organised civil society, and iv) research sponsors).

Specifically, in developing countries, a substantial interaction is required between these players and international sponsors and implementers of health research.

Conclusion: the need for 'evidence for policy'

There is considerable demand for the development of NHRS to move to the next stage. Building on the work of Bangkok 2000, of WHO and of World Bank, there is now a major opportunity for this work to deliver on its early promise and help national decision makers to make significant and sustainable steps in NHRS development. COHRED can assist countries to achieve a maximum from their health research investments.

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For more information and learning resources about using the NHRSa process to improve health research system effectiveness and performance, see

www.cohred.org/NHRSupport ■