

EDITORIAL

Health Research for Development: Making health research work ... *for everyone*

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The Commission on Health Research for Development tabled its findings in 1990 following three years of intensive data gathering on global health research [1]. The report documented for the first time the major mismatch between global expenditure on health research and the nature and extent of global mortality: only 5% of the world's health research budget was spent on conditions responsible for 93% of global mortality. This discrepancy was later restated as the “10/90 Gap” – a more “communication-friendly” term that became the slogan for global disparities in health research funding [2].

The work of the Commission was built on the belief that health research can play a key role in the overall development of resource-poor countries, both through focusing national research efforts on national health priorities rather than on sponsor-driven interests, and through the identification and documentation of health inequities and consequent action taken to reduce or eliminate these. Essential National Health Research (ENHR) was promoted as the strategy through which to operationalize “health research for development” (HRfD) [1].

Several modifications have been made to this early conceptualization of HRfD in response to a rapidly changing global environment, and as a consequence of experience gained since 1990. A major expansion in understanding how to optimize the impact of health research in the South was generated in the process leading up to the International Conference on Health Research for Development in Bangkok in 2000. At this landmark meeting, which focused on

Essential National Health Research (ENHR)

To understand its own problems, to enhance the impact of limited resources, to improve health policy and management, to foster innovation and experimentation, and to provide the foundation for a stronger developing-country voice in setting international priorities, the establishment and strengthening of an appropriate health research base in each developing country, no matter how poor, is essential [1].

review of progress with HRfD over a decade, the concept of “national health research systems” [3] was widely discussed and endorsed.

Health research systems

Whether global, regional or national, health research systems are the systems and structures through which health research takes place and through which its results impact on health. The generic functions of health research systems include (i) stewardship, (ii) financing, (iii) knowledge generation, utilisation and management, and (iv) research capacity building. By building each of these functions, health research can optimally contribute to development. National health research systems (NHRS) are the cornerstone of such global research architecture [3,4].

Through this expansion, capacity building for health research has received a sharper focus, and includes capacity strengthening from individual to institutional levels, from institutional to systems, and, sometimes, from systems or sectoral capacity into contextual capacity. Countries are of necessity the logical locus for governance and management of health research for development, and within countries, “research managers” become central to harmonizing research efforts between the many players in the “research orchestra” (public and private; for profit and not-for-profit; local and international; basic and applied; clinical and health systems). These efforts have the potential to ensure a better distribution of research funding driven by principles of equity and innovation – based both on a rational public health approach and on distributive justice. One of the consequences of proper “research management” is the effective application of research to (national) action. Effective “stewardship” of research gives developing countries much stronger control over and responsibility for the scope and resourcing of health research related to national health priorities, and is thus key to the contributions that the health field can make towards self-determination – not least because access of the public to information on health inequities is a minimum requirement for accountability and good governance in general. In essence, health research is a fundamental pillar for achieving health and development goals, such as the millennium development goals (MDGs), aimed at reducing the impact of poverty on health and promoting social and economic development, through both direct and indirect means [5]. Without the evidence needed to document disparity, to modify interventions in response to local needs, to develop new systems and interventions, and to ensure quality and impact through careful monitoring, these goals are neither likely to be realized in the near future, nor will their impact be comprehensive. And without the ownership of an intelligence system producing this evidence resting with countries, inequities in health are unlikely to be effectively addressed, seriously compromising the development potential of health interventions.

Even in the short time since the 2000 Bangkok conference, approaches to health research for development have had to adapt to further changes and challenges to maximize the impact of health research on health improvements in the South. These include:

1. The massive increases in funding drug-development-related research – from both the

Some achievements of targeted national health research in “southern” countries

1. Brazil discovered Chagas disease.
2. India developed oral rehydration therapy.
3. Chile led the development of the first copper intra-uterine contraceptive device.
4. Sudan altered its malaria treatment protocol to suit local epidemiology better.
5. Cuba developed the first meningitis B vaccine.
6. Thailand built its health sector transformation around a substantial evidence base.

‘for profit’ and the ‘not-for-profit’ sectors – resulting in large numbers of clinical trials of new drugs being undertaken in “southern” countries – could be the single largest contributor to narrowing the “10/90 gap”. Yet while this involves a massive injection of research funding into resource-poor countries, benefits to the poor are not necessarily a consequence. Such shifts of research spending may also have little impact on reducing the “10/90 gap” since there is a proportionately bigger increase in health research spending by the pharmaceutical industry in resource-rich countries, accompanied by availability of large grants from the US government for distribution in the USA [6].

2. There has been an aggressive pursuit of patents in the health field, which is viewed with ambiguity in the development community. In general, Asian and Latin American countries embrace patenting opportunities as a tool towards development through the potential to generate income by applying the ownership of intellectual property to the commercial sector. On the other hand, African countries view patents as a major counter force to development. In either case, the outcome of the struggles to secure intellectual property rights for the South have yet to demonstrate that these will have large and sustainable benefits for the poor in the South [7].
3. Research in the South is also being promoted by the large multilateral agencies funding research towards vaccine and drug development around some “global” priority diseases, specifically HIV/AIDS, tuberculosis, and malaria [8]. Nowhere in the developing world, however, is there sufficient research into those non-communicable conditions that cause the

mortality and morbidity resulting from circumstances and conditions such as ageing, chronic diseases, mental illness, disability, injuries, environmentally induced diseases, and more. Nor is there enough research conducted on the health system that is expected to deliver quality care to all [9,10].

4. The “epidemiologic transition” is apparent in all developing countries and has made the notion of a “10/90 Gap” less useful: after all, anti-hypertensive drug research done in the North is also of relevance to those in the South who suffer from hypertensive disease, and whose number is increasing rapidly. A new understanding of opportunities and obstacles in the global distribution of health research resources is required, along with a more sophisticated understanding of how northern research results (in particular those related to cost-effectiveness) can be adapted to the requirements of health systems and population profiles of the South [11].
5. The best news is that after years of support for efforts to build capacity in the South – through individual student support, collaborative research, or institution building – there is actually substantial research capacity in the South! The continent of Africa is not merely a continent of AIDS, famine, war and corruption, it also has a substantial capacity to identify and effectively address its own health problems [12]. And in regions of the South – from Latin America and the Caribbean to Asia and the Pacific Islands – there emerges a picture of significant achievements in health research in the face of scarce resources. Support for health research in developing countries must, therefore, change form and focus in order to optimize and strengthen this new capacity rather than – *at best* – compete with it and – *at worst* – ignore it [13].

Support for health research for development: consistency and confusion

Over the past decade or more, there has been significant interest in and support for health research for development from several northern countries and development agencies. Through bilateral development agencies, Scandinavia, along with some other European countries, has achieved a long track record of commitment to global social justice. Support for health research is one channel through

which this vision has been achieved. Along with Canadian, Swiss, German, and UK development agencies, US and Japanese Foundations, and the World Bank, Scandinavia agencies supported the work of the original Commission and, in fact, the final report of the Commission was launched at the Karolinska Institute Nobel Conference in Stockholm in 1990 [14]. Other developed country agencies have also supported HRfD consistently or intermittently, and new interest is growing. But short-term support – which is the current trend in a “measurable impact environment” – is not enough; long-term support is required for achieving development goals in this sphere, especially when applied to development through research and research capacity building [15].

While harmonization of global research efforts is crucial to address the challenges of health research for development, this must be accompanied by coordination of donor efforts in support of such initiatives. Funding a multitude of small initiatives with overlapping or conflicting objectives is counter-productive to advancing the cause of HRfD, and this needs as much attention by the development community as does the actual research agenda itself. Focusing appeals for funding on increasingly narrow areas, such as product development, seems to lead to opportunities to secure more funding, and in the face of decreasing funding, a narrow focus, such as on a tropical disease, is perceived to be an effective means for increasing funds by organizations active in this field. At the same time, from a donor point of view, focus may be equated with goal orientation and efficient use of funding, and is perceived to require more short-term commitments. From the point of view of the longer term goals of health research for development, such a “focus” on short-term funding often aggravates disjointed research efforts, fosters lack of integration, raises hopes, and leaves expectations unfulfilled. Often processes started are ended prematurely, and migration of frustrated researchers to areas or institutions with a more stable funding base and stronger infrastructure is accelerated, resulting in even less flow of resources to those countries most in need.

A serious review of the role of donors in health research funding is needed to reduce fragmentation, and to ensure a better balance between research outcomes as the main or only valid goal of health research and the processes of health research that are necessary to building national health research systems and sustainable health research capacity that can promote research appropriate to those health problems facing developing countries.

Health research for development: the way forward

Support for global health research needs to refocus on “Health Research for Development” as the overarching process through which to achieve development. Within this process, approaches such as health systems research, clinical epidemiology, health policy research, and targeting the multitude of single diseases and conditions that can be studied individually can be accommodated, and efforts towards building a strong foundation for sustaining HRD can be harnessed collectively. Commitment to this goal should be long term, and needs to acknowledge that the time span from training researchers to having them function in a senior position in a conducive environment requires at least a 30-year commitment, not just a short-term commitment to a 3- to 5-year project.

Support should be “massive” – not piecemeal – to avoid the recipe of under-resourcing, which is doomed to failure. Instead, if the recommendations of the Commission on Health Research for Development that 5% of health sector aid and 2% of national health programme budgets be spent on health research and national monitoring and evaluation system building are followed, it is likely that the impact of programmes will improve substantially, accountability will increase, and local ownership will be greatly enhanced without the requirement for major additional funding for health research.

In addition, support should be provided in ways that maximize its retention in the South. Vertical funding should be compliant with the requirements of national health research systems and seek to build individual, institutional, and system-wide capacity through projects conducted in the context of such systems. This brand of “responsible vertical programming” [9] should become a norm for international research engagements.

Intellectual property rights and patents need to be examined and adapted or challenged in terms of their effect on the health of the poor worldwide. And private sector, for profit, pharmaceutical research needs to be challenged to start using its resources beyond product development and for capacity strengthening, accountability, and system building in the developing countries in which trials take place.

There are many unanswered questions on the link between health research and development: What are the factors that mediate this relationship? What research capacity and structures are needed to optimize the impact of research on equity and development? What development role does the private (profit and non-profit) sector investment

play in country-specific problems, in neglected conditions and diseases, in capacity building? How can we scale up from successful district-based “research-to-policy” initiatives to country and region-wide effects? Given that few NGOs actually engage in research [16], what – if any – roles are there for non-governmental organizations in health research for development? How can the growing capability of developing countries in the South to develop products be prevented from increasing health inequities for the poor? How can health research in the South reflect more accurately the health needs of countries in which research is being conducted, and be focused on achieving health equity [17]? How can research capacity building become a national priority for low-income countries, and how should international donors engage with this more optimally? Lastly, as development is essentially about countries becoming self-reliant – also in terms of health research – a key question that has to be answered is: what is the right mix of investment in system building and investment in product development, between “horizontal” and “vertical” programming?

These are some of the challenges and opportunities for health research for development for the next decade. Some “innovating developing countries” have taken the lead in demonstrating that with a conducive political climate, visionary decision-making and appropriate allocation of sufficient resources, health research can be made to work for them. Whether their approach will also make health research work for everyone, including the poorest, in the least resourced and least developed countries, remains to be seen.

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