Health research systems: a framework for the future

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Research and its equitable use are an integral part of WHO's work. The Organization's Constitution says that "the extension to all peoples of the benefits of medical, psychological and related knowledge is essential to the fullest attainment of health"(1). Knowledge produced by health research has been called a global public good (2). It is undoubtedly one of the main driving forces for improving the performance of health systems and ultimately the health of individuals and populations. Four of the United Nations Millennium Development Goals (formulated in the year 2000) require health research for their achievement. These goals concern: reducing child mortality; improving maternal health; combating HIV/AIDS, malaria, tuberculosis and other diseases; and eradicating extreme poverty and hunger. A fifth, also inseparable from health research, is to build a global partnership for development, which provides the main means of working towards these other goals.

Much has been said about the importance of global health research mechanisms for bridging the health gap between rich and poor countries (3, 4). The Commission on Macroeconomics and Health has advocated a substantial increase in global health research investments (5). Some commentators have recently lamented that progress has been slow (6, 7), that the gap between those who own knowledge and those who need it has actually widened (8), and that research may actually divert resources away from more important public health priorities (9). Brain drain, lack of research culture, the digital divide, shortage of resources and other such obstacles are often cited to account for slow progress, but a systematic analysis has yet to be made.

The foundations of an effective global health research endeavour must be in strong national health research capacities, together with commitment to reducing inequalities both within and between countries. The results of research are global resources, but the people and institutions producing and using them are national resources (10). The clearest need is for a system within which the disparate elements involved can work together to achieve a common goal.

Practitioners know that health research is too often a fragmented, competitive, highly specialized, sectoral activity. Typically, biomedical researchers, clinicians, epidemiologists, health systems researchers, social and behavioural scientists, and health economists work in isolation. Often there is little communication between the producers of research findings and those who will use and ultimately benefit from them (11). Very few formal attempts have been made to name, define and investigate comprehensively the various inputs and outputs of health research systems. A rational framework that pulls together all of the actors, resources and stakeholders involved would clarify interdependencies and common goals.

WHO is working with its Member States to define such a framework for health research systems (HRS). We define an HRS as the people, institutions and activities whose aim is to generate detailed and reliable knowledge that will be used to promote, restore or maintain the health status of populations. Our definition includes all the actors involved primarily in knowledge generation in the public and private sectors.

In this preliminary framework, the advancement of scientific knowledge and its utilization to improve health and health equity are the goals of the system. Its four principal functions are stewardship (making optimal use of all the elements involved), financing, building up human and physical resources, and research. Countries from all the WHO regions are participating in the work of constructing this framework, while at the same time defining and analysing the existing and potential national systems within it. The mid-term results will be published in the World Health Report for 2004, whose subject will be "knowledge for better health".

There are two reasons for emphasizing national systems. On the one hand, governments and donor agencies are increasingly interested in evaluating the costs and benefits of their investments in health research. These are strongly influenced by the HRS within which individual scientists and institutions operate. On the other, developing countries in particular will benefit from building up their own HRS and designing rational health research policies. This will also enlarge the group of countries that contribute effectively to international agendas and priorities in health research, and help to align international investments with national priorities.

A better understanding and strengthening of national HRS will also make a valuable contribution to global health research, by providing benchmarks and information on best practices and lessons learnt. As national and international stakeholders work together on this project, a new vision for truly equitable and mutually beneficial global partnerships in health research is gradually coming into focus.

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