

EXECUTIVE SUMMARY

Background

Global spending on health research by both the public and private sectors amounts to about US\$56 billion per year (1992 estimate). However, less than 10% of this is devoted to 90% of the world's health problems – a misallocation often referred to as “the 10/90 gap”. For example, it is estimated that pneumonia, diarrhoea, tuberculosis and malaria, which together account for more than 20% of the disease burden in the world, receive less than 1% of the total public and private funds devoted to health research. The human and economic costs of such misallocation of resources are enormous.

The need for global prioritization in health research was first raised in the 1990 Report of the Commission on Health Research for Development, *Health Research: Essential Link to Equity for Development*. This led to the creation in 1994 of the Ad Hoc Committee on Health Research Relating to Future Intervention Options, which published its Report under the auspices of the World Health Organization (WHO) in September 1996. Among the 17 recommendations made by the Committee to help correct the 10/90 gap was the creation of the Global Forum for Health Research.

This took place in June 1997 (Forum 1) with the participation of about 100 institutions, including government policy-makers, WHO, the World Bank, the Rockefeller Foundation, multilateral and bilateral development institutions, research institutions, NGOs involved in health research, women's organizations and private-sector companies. The Secretariat of the Global Forum for Health Research, located at the headquarters of the WHO, started its operations in January 1998. In June 1998, the Global Forum for Health Research was registered as a Foundation, governed by a Foundation Council of 20 members representing the main partners in the Forum.

The 10/90 Report on Health Research 2000 is the second annual report of the Global Forum for Health Research. It describes the progress made by the partners in the Global Forum in the past year to help correct the 10/90 gap by focusing on research activities and initiatives that address health problems of middle and lower income countries and generating funds to support these initiatives. It also describes priorities for the years ahead. Its audience is all those who can help change, in whatever way, the imbalance in the allocation of health research funding: those who fund research, those who set priorities, those who influence decision-making, those who provide information and evidence.

What is new in this report, as compared to last year's, is summarized below for each chapter.

Chapter 1

The Global Forum for Health Research: an overview

In its first four sections, chapter 1 summarizes the efforts undertaken in 1998-99 by the Global Forum and its partners and the prospects for 2000-2001 under each of the five strategies adopted by the Global Forum to help correct the 10/90 gap, i.e.:

1. Organization of an annual Forum in which the main actors in the public and private sector interested in improving the allocation of health research funds can discuss past achievements and future actions; Forum 2 and Forum 3 were held respectively in June 1998 and June 1999; Forum 4 is integrated into the International Conference on Health Research for Development (Bangkok, October 2000); Forum 5 will take place in October 2001 in Geneva.
2. Analytical work in priority setting: the objective is to contribute to the definition of a practical framework for priority setting in health research which could be used at both the global and country level.
3. Launching initiatives bringing together a wide range of partners in a concerted effort to find solutions to priority health problems, thus attracting new financing to these areas.
4. Strengthening communication among Global Forum partners and disseminating information regarding the 10/90 gap
5. Measuring the results of the actions undertaken: progress will be measured in terms of the contribution of the Global Forum to a more widespread knowledge of the gaps in health research, the priority-setting efforts and the development of initiatives bringing together partners in key areas of health research.

Section 5 attempts to describe the overall health research governance in the world and the role that the Global Forum could play in this context.

Chapter 2

Complementary approaches to priority setting

Chapter 2 draws attention to the fact that, with the same resources, we could achieve a much higher level of health in the world, were we able to reallocate some health research funds from lower to higher priority projects, from projects benefitting the few to those benefitting the large majority of people. Attempts have been made to systematize the approach to setting priorities in health research with the objective of making the process more transparent and helping decision-makers allocate limited research funds in the most productive way.

The chapter reviews the main efforts undertaken in the past decade to systematize the approach to priority setting in health research:

- “Essential National Health Research (ENHR)” of the Commission on Health Research for Development (1990) and the Task Force on Health Research for Development (1991)

- “Five-Step Process” of the Ad Hoc Committee on Health Research (1996)
- “Visual Health Information Profile” of the Advisory Committee on Health Research (1997).

In particular, it makes a comparison of these methods, indicating their common denominators and main differences with respect to their objective, strategies/principles, criteria used for setting priorities, priority research areas selected and implementation tools.

It concludes that these attempts are not contradictory but complementary and proposes a "combined approach" which is undergoing piloting and testing.

Chapter 3

Progress in methodological issues: resource flows, burden of disease and cost-effectiveness of health research

In order to keep the debate on priority-setting strategies well informed, it is critical to develop and improve the tools to collect information, particularly with respect to resource flows, burden of disease and cost-effectiveness of health research. The Global Forum and its partners work towards improving and continuously developing methods to capture and evaluate information required for setting priorities.

Chapter 3 focuses on the progress over the last year on these three tools. Given the lack of a standardized method to track global spending on health research, the Global Forum and its partners have started to develop such a system. The chapter reviews progress achieved this year in the design and implementation of a categorization system to link resource flows with disease groups, determinants of health, research on health systems and capacity building.

With respect to burden of disease, the chapter reviews activities by the Global Forum and its partners to help access and capture information from groups working in developing countries on their burden of disease. This activity is considered relevant for helping to improve estimates for the Global Burden of Disease 2000 project and for helping build capacity in developing countries to produce their own standardized data. Issues of measurement of burden of disease are also discussed.

A further area of work described is the progress by partners and the Global Forum in the search for standardized methodologies to study the cost-effectiveness of health interventions in developing countries. This area of work is critical to help compare potential interventions and investments in health research across a wide array of conditions, in view of the lack of information available in developing countries.

Chapter 4

Priority areas in health research

Chapter 4 argues that, in view of the competing priorities for scarce resources, priority setting in health research is as critical as conducting the research itself. A review of figures calculated from WHO's *World Health Report 1999* is presented to depict the impressive differences in health status between high-income and low/middle-income

countries. It concludes that low/middle-income countries account for 85% of the world population but 92% of the global disease burden. By comparison, high-income countries account for 15% of the world population and 8% of the global disease burden.

A second conclusion, based on a comparison of the rates of burden (DALYs per 100,000 population), is equally striking: the rate for noncommunicable diseases is very similar in high- and low/middle-income countries; but the rates for communicable diseases (including maternal, perinatal and nutritional conditions) and injuries are, respectively, thirteen and three times higher in low/middle-income countries than in high-income countries.

In a second section, the chapter focuses on the identification of health research priorities based on the conclusions of the four approaches to priority setting described in Chapter 2. The priority research areas most often mentioned are the following:

- child health and nutrition (including diarrhoea, pneumonia, HIV, TB, malaria, other vaccine-preventable diseases, and malnutrition)
 - maternal and reproductive health (including mortality, nutrition, STDs, HIV, family planning)
 - noncommunicable diseases (including cardiovascular, mental health and disorders of the nervous system)
 - injuries
 - health systems and health policy research.
- **The third section of the chapter identifies poverty as a key determinant of health. The section argues that relevant research areas applicable to poor and non-poor segments of the population should include communicable diseases, noncommunicable diseases and injuries, with priority given to research projects with the lowest estimated cost per healthy life-year saved.**

Chapter 5

Advances in priority areas

The Global Forum recommends routine monitoring of progress in priority areas over time. Chapter 5 reviews progress achieved this year in selected areas of research and presents research recommendations for these areas.

The chapter focuses on “life cycle” issues, including issues of child health, nutrition and reproduction, and on mental health and disorders of the nervous system. Also presented is an example of the application to epilepsy of the priority-setting matrix proposed in Chapter 2.

Finally the chapter refers to road traffic accidents as an important component of injuries in developing countries and draws attention to the need for developing countries to conduct research on the so-called “double burden for the health services” to accommodate issues resulting from the epidemiological transition.

Chapter 6

Progress in initiatives

Global Forum support to initiatives is a key strategy for encouraging multiple partners to join in concerted research efforts to find solutions for priority health problems. These are generally of such magnitude and complexity that no single institution can resolve them alone. The driving force behind the creation of initiatives is the need to generate the necessary evidence base for action and to mobilize new resources for priority areas. The Global Forum has supported a number of initiatives over the past two years. Progress in the following initiatives is described:

Alliance for Health Policy and Systems Research

Health policy and systems research is a neglected area of research particularly in middle- and low-income countries. The manner in which decisions are taken and policies formulated needs further exploration. Similarly the organisation of health systems varies considerably between the developed and developing countries. A 1997 conference brought together collaborating partners with interest in promoting health policy and systems research and recommended the creation of an Alliance to develop a knowledge base of policies and systems that work and those that do not as a basis for advocacy. The Global Forum has worked with many partners – particularly the World Bank, the governments of Norway and Sweden and the International Development Research Centre – to nurture the Alliance through an interim phase until the final location of its Secretariat within WHO in November 1999. The aim of the Alliance is to contribute to health systems development and the equity of health systems through research on and for policy, focusing on five principal tasks:

- mapping and monitoring health policy and systems research efforts worldwide
- contributing to and collaborating in efforts at building sustainable country-level capacity for health policy and systems research
- developing methodologies and tools for comparative analysis of country experiences
- establishing a competitive small grants programme for research on important and neglected areas to inform policy- and decision-makers
- dissemination and systematisation of information concerning results of research.

Global Tuberculosis Research Initiative

This initiative came into existence as a result of the limited impact of existing tools (DOTS) and the absence of alternative/additional tools in the face of increasing resistance to existing drugs. Health systems in countries with high TB prevalence are weak and incapable of supporting control efforts. Finally there was a limited political commitment on the part of these countries as well as funding agencies to control the disease.

The initiative, born in 1998, brought together partners willing to further the above points. The main partners and donors of WHO's Special Programme for Research and Training in Tropical Diseases (TDR) decided in June 1999 to integrate the research aspects of TB into TDR. The main research thrust is:

- operational research to support the day-to-day implementation of TB control

- development of new anti-TB drugs and exploration and definition of a TB vaccine programme in collaboration with other initiatives including public/private partnerships
- development of appropriate national capacity to support TB research and control efforts.

Initiative on Cardiovascular Health in Developing Countries

Cardiovascular disease has emerged as an important problem with an increasing burden in both developed and developing countries. This burden, along with the burden of communicable diseases, handicaps the middle- and low-income countries. In 1997, the Global Forum, using a World Bank grant, funded a study carried out by the Institute of Medicine of the American Academy of Sciences, focusing on the determinants of cardiovascular diseases and recommending possible R&D investments that would lead to the development of cost-effective intervention tools and strategies. After a series of consultations involving scientists and experts from high, middle and low-income countries and discussions at Forum 3 in June 1999, six priority areas of research were identified for further exploration to inform policy makers and field doctors:

- development of a global information network on CVD in developing countries
- establishment of sentinel surveillance systems for monitoring CVD risk factors and mortality, tracking evolving epidemics of CVD and their determinants and evaluating the impact of interventions
- population-based interventions to reduce CVD risks associated with high blood pressure
- evaluation of strategies for identifying individuals at risk
- evaluation of clinical algorithms for management of acute myocardial infarction and congestive heart failure based on the efficacy of existing methods
- assessing the existing capacity of developing countries for initiating and implementing CVD control programmes at different levels of health care.

The Initiative for Cardiovascular Health in Developing Countries was formed in November 1999 to take this forward. Its secretariat is located in the Indian Institute of Medical Sciences. A 12-member Partnership Council and International Scientific Committee have been formed to guide the work of the initiative.

Medicines for Malaria Venture

The Medicines for Malaria Venture is the response of the public and private sectors to the growing crisis of malaria, after several years of preparation by the international development agencies and industry. Initial co-sponsors of MMV were WHO (Special Programme for Research and Training in Tropical Diseases), International Federation of Pharmaceutical Manufacturers' Associations (IFPMA), World Bank, UK Department for International Development, Swiss Agency for Development and Cooperation, Global Forum for Health Research, Rockefeller Foundation and the global Roll Back Malaria Partnership. It was launched in November 1999 and established as an independent Foundation in Geneva.

MMV is a type of “public venture capital fund”. Its objective is to finance and manage a portfolio of R&D projects for the discovery and development of affordable new antimalarial drugs. It has the following specific objectives:

- to register one new antimalarial drug every five years (starting in 2008-10), with the initial emphasis on oral drugs for treatment of uncomplicated malaria

- through partnerships, to ensure the commercialization of these products at affordable prices.

MMV is part of the Roll Back Malaria campaign, a global strategy to fight malaria worldwide launched in October 1998 by the World Health Organization, United Nations Development Fund, UNICEF and the World Bank, with the objective of halving morbidity and mortality due to malaria by 2010.

Violence against Women

Violence against women has been recognized as a serious problem for which insufficient data is available. Since work on the subject has been fragmentary and piecemeal, the Global Forum has supported efforts to bring together partners interested in the problem to discuss and define a common plan of action. A consultation in Melbourne in May 2000 brings together a body of informed persons to discuss the priorities, identify some of the health research issues and draw up a plan of action. Discussions will focus on the health aspects, consequences and societal costs of sexual violence and make specific recommendations on interventions. The meeting will also discuss policy development and legal reform.

Initiative on Child Health and Nutrition Research

Studies on burden of disease in middle- and low-income countries have shown the important share of child health problems in the global burden of disease. Partners with an interest in improving the health of children through research came together during Forum 3 in June 1999. Their meeting recognized the need to have an initiative specifically focused on child health and nutrition, which would use the five-step process to study the magnitude of the problem, reasons for its persistence, availability of effective tools, their cost effectiveness and current levels of funding. Subsequent efforts would be made to support research activities in child health and nutrition, focusing on the interaction between health and nutrition.

A meeting of those interested in the initiative was held in February 2000 to explore the subject and draw up a workplan. The meeting recommended the creation of the following task forces: (i) criteria for priority setting in child health and nutrition research; (ii) international collaboration and mobilization of funds for research in child health and nutrition.

Initiative on Public/Private Partnerships

A number of major diseases in the developing world, including malaria, TB and HIV/AIDS, are potentially treatable in the longer term. However, scientific obstacles and economic disincentives have resulted in under-investment in research for new vaccines and medicines targeted at these diseases. As a result, the solution has to come from joint undertakings of the public and private sectors (together with reinforced "push" and "pull" interventions on the part of the public sector).

Based on these considerations, the Global Forum and its partners decided to support a Public/Private Partnerships Initiative to gather information on existing partnerships and promote the development of new ones.

Chapter 7

Research Capacity Development

Developing countries need to acquire the technical capacity to deal with their own health problems through research, as underlined by the current emphasis on evidence-based decision-making. Individuals and groups need appropriate training to enable them to acquire the knowledge, skills and competence to respond to national and local health problems. At present there is a mismatch between the burden of disease and the technical capacity of developing countries to make use of existing knowledge or to generate new knowledge.

Many partners have been involved in research capacity development in developing countries in the last three decades. Success has been found to depend on a number of key factors: careful selection of trainees, capable scientific leadership, continuity of research funding, good equipment and supplies in the institution including communication facilities and an enabling environment for good research. Funders of research capacity development are now anxious to assess the outcome of their funding in order to justify their investment and to develop the needed indicators.

- Chapter 7 describes the progress made by a number of partners in assessing the outcome of capacity development and presents a matrix framework for the evaluation of research capability strengthening projects based on criteria measuring the process, the outcome and the impact of these projects, distinguishing between the individual, institutional, national and global levels.