

Chapter 3

Correcting the 10/90 gap: from the 1990 Commission to the 2004 Mexico Summit

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Section 1

The nineties: the beginning of a revolution in health research

The 10/90 gap in health research was first identified by the Commission on Health Research for Development in its 1990 Report, which made far-reaching recommendations for its correction.

These first efforts were followed by the 1996 Report of the Ad Hoc Committee on Health Research which made 17 recommendations in the fields of infectious diseases, new and re-emerging microbes, NCDs, health policies and systems, and institutional arrangements.

In October 2000, the first International Conference on Health Research for Development was convened in Bangkok. The Conference adopted the Bangkok Action Plan which made important recommendations for the correction of the 10/90 gap at the global, regional and national levels.

In addition to the three events singled out above as the main events of the 1990s which led to a reorientation of health research, many other organizations, events, conferences and reports have contributed much to an increase in global awareness of the misallocation of resources in the field of health research.

As a result, the nineties can be considered as the beginning of a revolution in health

research. In this chapter, an attempt is made to identify examples of actions taken by the international community to follow up on the recommendations made by the 1990 Commission, the 1996 Ad Hoc Committee and the 2000 Bangkok Action Plan.

However, the examples are presented here with the following caveats:

- These are only examples, which are chosen to illustrate the emergence during the 1990s of a major international movement for the correction of the 10/90 gap. Lack of space prevents the inclusion of many others, particularly at the national and local levels, which are less widely known but are also contributing in a major way to the movement for correction of the 10/90 gap.
- Some of the examples described were a response to the Report of the 1990 Commission, the 1996 Ad Hoc Committee or the Bangkok Action Plan, while others were only influenced or boosted by them, or would have occurred in any case. As a result, the examples illustrate the results of this movement as a whole rather than focusing exclusively on the outcome of the three main events.

Section 2

Implementation of the recommendations of the 1990 Commission on Health Research for Development for correcting the 10/90 gap

The recommendations made by the 1990 Commission on Health Research for Development¹ are summarized in Insert 3.1

together with some of the main actions which have been taken since 1990 to implement them.

¹ Commission on Health Research for Development. *Health Research: Essential Link to Equity in Development*, 1990; and Task Force on Health Research for Development. *Essential National Health Research: A Strategy for Action in Health and Human Development*, 1991.

Insert 3.1

Implementation of the recommendations of the 1990 Commission on Health Research for Development

Fields of action	Recommendations	Implementation (as of December 2003)
1. Essential National Health Research	<p>R1: Essential National Health Research (ENHR) To help correct the 10/90 gap, each developing country should build its research capacity and conduct Essential National Health Research.</p> <p>R2: Two principal objectives of ENHR: (a) country-specific research; (b) international research on global health problems which are of high priority for the country in question. At present, the most urgent need in virtually every country is for a rapid enlargement of capacity for country-specific research.</p> <p>R3: To build research capacity for ENHR, a country will need:</p> <ul style="list-style-type: none"> To invest in individuals and institutions, particularly in epidemiology, social sciences, and management research. To set national priorities for research. To build career paths to attract able researchers. To develop reliable links between researchers and users. To invest at least 2% of national health expenditures in ENHR. 	<p>R1, 2, 3: Examples of actions</p> <ul style="list-style-type: none"> Since 1990, the concept of ENHR has been disseminated and promoted by COHRED and about 35 countries have developed an ENHR programme (such as Guinea, Indonesia, Nicaragua, Philippines, South Africa, Tanzania and Uganda). Regional Health Research Forums have been launched in Asia and Africa, while Latin America and the Caribbean have witnessed important networking efforts in health research. In a limited number of countries, a National Health Research Forum has been created (e.g. Tanzania). <p>Weaknesses</p> <ul style="list-style-type: none"> The research capacity in many developing countries remains very limited and the research budget remains only a small fraction of the recommended 2% of national health expenditures. Priority setting in research taking all dimensions of health at country and global levels is still very limited. Links between international research and ENHR are far from systematic.
2. International Partnerships	<p>R4: International research networks Promote the steady growth of collaborative international research networks as the principal means for mobilizing scientific talent to attack common problems.</p> <p>R5: Support international networks in the following fields:</p> <ul style="list-style-type: none"> Tropical diseases (TDR) and reproductive health (HRP). Diarrhoeal diseases (Centre for Health and Population Studies). Acute respiratory diseases. Tuberculosis. Micronutrient deficiencies: in particular vitamin A, iron, iodine. Diabetes, coronary heart disease and hypertension. Injuries, STIs, substance abuse. Mental health. Environmental and occupational health. <p>R6: Support to develop health research capacity in countries</p> <ul style="list-style-type: none"> Coordination of international programmes at country level. Creation of a facilitation unit (financed internationally and by developing countries) to develop health research capacity. Annual meetings of scientists interested in country-specific health research. International awards for country-specific health research. 	<p>R4, 5, 6: Examples of actions</p> <ul style="list-style-type: none"> A number of collaborative international research networks and programmes were created (or substantially developed) in the early 1990s in key areas of health and health research such as the Children's Vaccine Initiative in 1990, the Micronutrient Initiative in 1992, the Infectious Disease Research Institute in 1993, the UNFPA Contraceptives Access Project in 1994 and the Consortium for Industrial Collaboration in Contraceptive Research (CICCR). The movement accelerated in the latter part of the 1990s under the further push of the World Bank <i>World Development Report 1993</i>, the Ad Hoc Committee on Health Research (1996) and the WHO Advisory Committee on Health Research (1997). According to an analysis carried out by the Initiative on Public-Private Partnerships for Health (www.ippph.org), more than 70 partnerships and networks were created between 1995 and 2003 (as compared to about a dozen in the 1980s), particularly in the fields of HIV/AIDS, TB, malaria, leishmaniasis, schistosomiasis, pneumococcal diseases, STIs, dengue, meningitis, human trypanosomiasis, nutrition, road traffic injuries, health policies and systems, CVDs, cancer and mental health.

Insert 3.1 (continued)

Implementation of the recommendations of the 1990 Commission on Health Research for Development

Fields of action	Recommendations	Implementation (as of December 2003)
2. International Partnerships (continued)	<p>R7: Recommendation to industrialized countries</p> <ul style="list-style-type: none"> • Provide career opportunities for young scientists from the South. • Promote the strengthening of schools of public health, medical schools and research institutions in the South. • Provide more aid resources for health research in the South. 	<p>R7: Examples of actions and limitations</p> <ul style="list-style-type: none"> • Many projects co-financed by donor agencies include training opportunities for scientists from the South or collaboration between schools of public health and research institutions in the North and South. However, it does not appear that these efforts have been systematic, nor that an overall view exists of such efforts in capacity building. Such a platform would be needed to make a systematic move in the field of research capacity strengthening.
3. Mobilizing Research Funding	<p>R8: Substantial increases in funding for health research</p> <ul style="list-style-type: none"> • Developing countries: should invest at least 2% of national health expenditures in research and research capacity building. • Aid agencies: should invest at least 5% of their health budget in research and research capacity building. <p>R9: Increase the quality and quantity of research and research capacity strengthening efforts</p> <ul style="list-style-type: none"> • Much longer time horizon for research capacity building. • Innovative financing strategies (debt for health research, funding pools, funding intermediaries, etc.). • Foundations and special research agencies (e.g. International Development Research Centre, Swedish Agency for Research Cooperation with Developing Countries) should continue their pioneering role and mobilize broader support. 	<p>R8, 9: Examples of actions and limitations</p> <ul style="list-style-type: none"> • Based on a study undertaken by the Global Forum for Health Research and its partners,² only Brazil and Cuba approached the 2% mark. Most other countries invest only a fraction of the 2% recommended. See also chapter 5 on "Progress in measuring the 10/90 gap". • Only limited information exists on investments in health research financed by aid agencies as a proportion of their health budget. See also chapter 5 on "Progress in measuring the 10/90 gap". • Substantial efforts were undertaken in the 1990s in the field of research capacity building, but no overall view or synthesis of these efforts exists at this stage. See also chapter 7 on "Research capacity strengthening". • At country level, some innovative financing strategies have been developed, for example in Brazil. At the global level, in 2001 the Commission on Macroeconomics and Health proposed the creation of a Global Health Research Fund. Other proposals and options are under study, such as the creation of a "virtual fund".
4. Forum for Review and Advocacy	<p>R10: Establish an international independent mechanism to monitor progress in health research. In particular:</p> <ul style="list-style-type: none"> • Promote when needed financial and technical support for research on health problems of developing countries. • Be sufficiently independent to be objective in recommendations. • Mandate should not be to operate research programmes but to promote action by others. 	<p>R10: Examples of actions</p> <ul style="list-style-type: none"> • INCLEN was created in 1980 (and became INCLEN Trust in 2000) to disseminate knowledge and tools for the most efficient and effective prevention and treatment strategies. Today: 64 institutions in 26 countries. • COHRED was created in 1993 to advocate for the ENHR strategy and provide technical assistance on the strategic elements of ENHR: advocacy, ENHR mechanism, priority setting, capacity strengthening, networking, financing and evaluation. See also chapter 9, section 15 on COHRED. • The Global Forum for Health Research was created in 1998 with the specific mandate to "help correct the 10/90 gap". See also Chapter 2.

Source: Global Forum for Health Research

² Global Forum for Health Research. *Monitoring Financial Flows for Health Research*; October 2001.

Section 3

Implementation of the recommendations of the 1996 Ad Hoc Committee on Health Research for correcting the 10/90 gap

The recommendations made by the 1996 Ad Hoc Committee on Health Research³ for correcting the 10/90 gap are summarized in

Insert 3.2 together with some of the main actions which have been taken since 1996 to implement them.

³ Ad Hoc Committee on Health Research Relating to Future Intervention Options. *Investing in Health Research and Development*, WHO, Geneva, 1996.

Insert 3.2

Implementation of the recommendations of the 1996 Ad Hoc Committee on Health Research

Problems (1990-2020)	Recommendations (R)	Implementation (as of December 2003)
<p>1. The unfinished agenda: avoidable deaths, sickness and disability</p> <p>Health advances and public education over the last century have produced numerous vaccines, cures and treatments for many common infectious diseases. Despite this progress, infectious diseases, malnutrition and poor maternal and child health account for one-third of the global disease burden and for as much as half of the disease burden in the poorest countries.</p>	<p>R1: Package development and evaluation</p> <ul style="list-style-type: none"> Evaluate the package for the Integrated Management of Childhood Illnesses (IMCI). Understand the relative importance, in different environments, of increased nutrient intake and control of infectious diseases as a means to reduce malnutrition. Develop and evaluate the mother-baby package for pregnancy, delivery and neonatal care. Evaluate the implementation of a range of family planning packages (wide choice of methods). <p>R2: New tools</p> <ul style="list-style-type: none"> Evaluate rotavirus vaccine in low-income countries. Evaluate conjugate pneumococcal vaccine and existing vaccine against <i>Haemophilus influenzae</i> type b in low-income countries. Improve the Expanded Programme on Immunization (EPI) by simplifying delivery and maximizing the use of opportunities for immunization. Evaluate insecticide-impregnated bednets (possibly for inclusion in future Healthy Household package). Develop new contraceptive methods. 	<p>R1: Examples of actions</p> <ul style="list-style-type: none"> IMCI: WHO programmes have taken the lead in designing the IMCI package which has been implemented in over 100 countries. WHO has established a multicountry evaluation of costs and impact using scientific methods. Nutrient intake and infectious diseases: research on nutritional interventions for pregnant women and children is currently underway by governments, medical research councils (MRCs), foundations, research institutions and civil society. These studies include micronutrients supplementation (e.g. vitamins and minerals), high calory intake supplementation and improved ways to handle food to keep its nutritional value intact. Mother-baby package: the package was pilot-tested and is now operational in several low- and middle-income countries. WHO is spearheading this effort. Evaluation of family planning packages: contraceptive mix has been researched for over four decades. The Human Reproduction Programme of WHO (HRP) has taken a major role in this regard since its inception. The challenge since the 1994 International Conference on Population and Development in Cairo has been to integrate reproductive health services with family planning programmes. Operations research on implementing the package is currently well under way in a number of countries. <p>R2: Examples of actions</p> <ul style="list-style-type: none"> Evaluation of the rotavirus vaccine: phase III trials are under consideration. Evaluation of the conjugate pneumococcal vaccine and Hib vaccine: Phase III trials are ongoing. Some positive results have been reported in the introduction of these vaccines. The joint efforts between the private and public sectors have been a key component of this progress. Improving the EPI: EPI programmes face the following two main challenges: reaching and maintaining high coverage and linking programmes with other interventions (e.g. EPI plus, with micronutrient supplementation). These programmes are being tested at the operational level in a number of countries and have been implemented in others. Current challenges include the marked decrease in coverage in some African countries. Evaluate the insecticide-impregnated bednets: the impact of bednets in preventing malaria has been conclusive in areas with endemic malaria. Operations research is ongoing on the production, purchase and re-impregnation of bednets. Recent work has been successfully conducted on bednets which will not need to be re-impregnated. Governments, MRCs and universities have played an important role in this research. Develop new contraceptive methods: much progress has been achieved in this area. Work on long-term injectable contraceptives and male contraceptives is ongoing. HRP has played an important role, together with governments, universities and research institutions.

Source: Global Forum for Health Research

Insert 3.2 (continued)

Implementation of the recommendations of the 1996 Ad Hoc Committee on Health Research

Problems (1990-2020)	Recommendations (R)	Implementation (as of December 2003)
<p>2. New and re-emerging microbes</p> <p>A growing number of drug-resistant microbes threaten to create new health emergencies and are leading to the resurgence of diseases, such as tuberculosis, malaria, and pneumococcal disease, long thought to be under control.</p>	<p>R3, 5, 6: Intervention development</p> <ul style="list-style-type: none"> • Develop strategies to extend the coverage of Directly Observed Treatment Short Course (DOTS) for TB. • Develop an effective prophylactic for TB. • Conduct trials of conjugate pneumococcal vaccines. • Develop an HIV vaccine. • Improve methods for the diagnosis, prevention, and treatment of STDs, including vaginal microbicides. • Develop new antimalarials and a vaccine. • Develop collaboration between the public and private sectors. <p>R4: Strategic research</p> <ul style="list-style-type: none"> • Sequence the genomes of the major pathogens. • Investigate influences on the spread of antimicrobial resistance. 	<p>R3, 5, 6: Examples of actions</p> <ul style="list-style-type: none"> • Extending the coverage of DOTS: the challenge is to scale up interventions. Operations research is ongoing in a number of countries. TB initiatives have played a major role. • Developing an effective TB prophylactic: work is ongoing in universities and research institutions. • Trials of conjugate pneumococcal vaccines: successful efficacy trials have been reported. Collaboration between public and private institutions played an important role in these trials. Operations research continues in this field. • Developing an HIV vaccine: the International Aids Vaccine Initiative (IAVI) was launched in 1996, with the objective of reducing the obstacles to vaccine development and filling the gaps in current efforts, involving both the public and private sector. Very serious technical challenges and insufficient funding have slowed progress (0.6% of total health research funding as compared to more than 5% of total disease burden). • Treatment of STIs. The following areas of research are receiving particular attention: improvement of diagnostic methods, case management, operations research in low- and middle-income countries. • Malaria drugs and vaccines: the Medicines for Malaria Venture (MMV) was created in November 1999 to discover, develop and deliver new antimalarial drugs through effective public-private partnerships. Insufficient funding is a major problem (malaria: 0.2% of total health research funding as compared to 2.8% of total disease burden). • The Malaria Vaccine Initiative (MVI) was launched in 1999 with the mission to accelerate the development of promising malaria vaccines and ensure their availability and accessibility in developing countries. • The Initiative on Public-Private Partnerships for Health (IPPPH) was created in 2000 under the Global Forum for Health Research to increase the effectiveness of public-private collaboration, particularly with respect to the development of, and access to, health products in developing countries. <p>R4: Examples of actions</p> <ul style="list-style-type: none"> • The genomes of a number of pathogens, including the <i>A. gambiae</i>, an important malaria vector, have now been sequenced. • In 2001, WHO published a <i>Global Strategy for Containment of Antimicrobial Resistance</i>.

Insert 3.2 (continued)

Implementation of the recommendations of the 1996 Ad Hoc Committee on Health Research

Problems (1990-2020)	Recommendations (R)	Implementation (as of December 2003)
<p>3. Increase in NCDs, injuries and violence</p> <p>Epidemics of NCDs such as CVDs, neuro-psychiatric conditions and chronic respiratory infections, as well as the burden of violence and injuries, are increasing in low-income countries.</p>	<p>R7, 8: Establish a special programme for research and training in NCDs</p> <ul style="list-style-type: none"> • Develop low-cost methods for collecting reliable data (disease surveillance points). • Study the burden and determinants of NCDs in developing countries. • Concentrate on epidemiological and behavioural research (biomedical research is comparatively well supported in industrialized countries). • Develop strategies for the cost-effective prevention, diagnosis, treatment and rehabilitation of NCDs (for example tobacco, psychiatric disorders). <p>R9, 10: Establish a special programme for research on injuries</p> <ul style="list-style-type: none"> • Develop low-cost methods for collecting reliable data on the epidemic. • Study the burden of injuries and determinants. • Develop strategies for the cost-effective prevention and treatment of injuries. 	<p>R7, 8: Examples of actions</p> <ul style="list-style-type: none"> • In the 1990s, the bias against NCDs was in part corrected as epidemiological studies showed that developing and developed countries suffered equally from these diseases (burden of disease per 100 000 people). Efforts were undertaken to study the burden of NCDs in developing countries. For example: creation of the Global Forum on NCD Prevention and Control in 2001 (with annual meetings). • Epidemiological and behavioural research in developing countries was strengthened with the creation of the INDEPTH network in 1998 (www.indepth-network.net) and by other efforts. • Substantial efforts were also undertaken for prevention, diagnosis and rehabilitation of NCDs, including research in these fields. Examples: adoption of WHO Framework Convention on Tobacco by the World Health Assembly in May 2003; launch of the Initiative on Cardiovascular Diseases in Developing Countries in Delhi in 1999 (under the umbrella of the Global Forum for Health Research); the WHO Mental Health Gap Initiative and other initiatives in the field of mental health and neurological disorders; the creation of the Global Alliance for Cancer Control. <p>R9, 10: Examples of actions</p> <ul style="list-style-type: none"> • Networking efforts were undertaken, particularly in the field of road traffic injuries, in several countries and at the global level. A <i>World Report on Road Traffic Injury Prevention</i> will be published by WHO, the World Bank and other partners in April 2004.
<p>4. Inequity and inefficiency in the delivery of health services</p> <p>Countries vary enormously in how efficiently and equitably they provide health services. Current efforts in health care reform require international research and information exchange on: effective health policies, disease burden, resource flows, and cost-effectiveness interventions.</p>	<p>R11, 12, 13: Establish a special programme for research and training on health policy and systems</p> <p>The work of this programme could focus on:</p> <ul style="list-style-type: none"> • Research and data collection in health systems policy, including evaluating health intervention packages. • Development of international indicators for the measurement of health systems performance. • Capacity building in health policies and systems. • Turn research results into action through tools for health workers: essential medicines lists, model legislation, priority intervention packages, pricing policies, practical manuals for health workers, summaries of research results for health workers and decision-makers. 	<p>R11, 12, 13: Examples of actions</p> <p>The Alliance for Health Policy and Systems Research was launched in March 2000 by the Global Forum for Health Research, WHO and other partners. The objectives of the Alliance in the fields of health policies and systems research are the following:</p> <ul style="list-style-type: none"> • generation and synthesis of knowledge • capacity building on national and global issues • dissemination and use of knowledge in health policies and systems. <p>See: www.alliance-hpsr.org and chapter 9 (section 14) for a summary of the recent activities of the Alliance for Health Policy and Systems Research and its perspectives.</p>

Source: Global Forum for Health Research

Insert 3.2 (continued)

Implementation of the recommendations of the 1996 Ad Hoc Committee on Health Research

Problems (1990-2020)	Recommendations (R)	Implementation (as of December 2003)
<p>5. Institutional problems</p> <ul style="list-style-type: none"> At the level of the national research agendas 	<p>R14: Develop national agendas for health research, with the active involvement of all relevant actors (policy-makers, research institutions, community leaders, health care providers, etc.) dealing with major national health issues, including:</p> <ul style="list-style-type: none"> capacity building translation of research results into policies and interventions development of competitive procedures for staffing and allocation of funds among institutions. 	<p>R14: Examples of actions</p> <ul style="list-style-type: none"> In the 1990s, a number of priority-setting methods were developed for the establishment of national agendas for health research. The main efforts have been the following: ENHR proposed by the 1990 Commission on Health Research for Development and promoted since 1994 by COHRED in about 35 countries (e.g. Cameroon, Chile, Ghana, Guinea, Indonesia, Malawi, Mali, Nicaragua, Pakistan, Philippines, South Africa, Tanzania, Uganda). The Five-Step Process proposed in the 1996 Report of the Ad Hoc Committee on Health Research. The Visual Health Information Profile (VHIP) proposed in 1997 by the Advisory Committee on Health. The Combined Approach Matrix proposed by the Global Forum for Health Research which incorporates the criteria and principles for priority setting of the three methods mentioned above, and expands them into a matrix to take into account the actors/factors determining the health status of a population. A comparison of the four methods appears in Chapter 4, insert 4.1. <p>Limitations</p> <p>These efforts are a very good start, but suffer from the following three limitations:</p> <p>(a) the research capacity in many developing countries remains limited and the research budget only a small fraction of the recommended 2% of national health expenditures.</p> <p>(b) Few priority-setting exercises for health and health research systematically take into account actors and factors beyond the biomedical field, i.e. the individual, behavioural and community dimensions; the sectors other than health having a profound effect on the health status of a population (such as education, environment); and macroeconomic policies.</p> <p>(c) Links between international and national research agendas are far from systematic.</p> <p>Attention to these three problems should be part of the priority agenda for the coming years.</p>
<ul style="list-style-type: none"> Regarding the role of the public and private sectors 	<p>R15: Explore the development of new instruments (beyond the current patents system) for engaging the skills and energy of the private sector in the development of vaccines, medicines, diagnostic tests, and equipment for use among low-income populations through, for example:</p> <ul style="list-style-type: none"> subsidies guaranteed markets streamlined regulatory requirements. 	<p>R15: Examples of action</p> <ul style="list-style-type: none"> More than 70 health-related public-private partnerships were created between 1995 and 2003. The creation of the Global Fund is an important "pull" factor for the markets. Tax credits were also allocated to engage the private sector in research for neglected diseases.
<ul style="list-style-type: none"> At the international level 	<p>R16: Create a forum for investors in international health research to provide a mechanism for the review of needs and opportunities, making use of data on:</p> <ul style="list-style-type: none"> disease burden level of ongoing efforts (resource flows) R&D opportunities. 	<p>R16: Example of action</p> <p>Creation of the Global Forum for Health Research in 1998.</p>
<ul style="list-style-type: none"> Regarding the overall allocation of resources: reallocate health sector resources to R&D 	<p>R17: Reallocate health sector resources to research and development as a means to bring substantial gains, particularly for the health of poor populations</p> <ul style="list-style-type: none"> Since much R&D provides an international public good, there is a particularly strong case for public sector investors in the market economies to reallocate their health portfolios to increase R&D funding. 	<p>R17: Example of action</p> <p>The 10/90 gap discussions and the new interest in health and health research as crucial factors for the development agenda are attracting more funding for health research for neglected diseases. However, measurement is very weak and a considerable and systematic effort is needed in the coming years.</p>

Section 4

Implementation of the recommendations of the 2000 Bangkok Action Plan

Ten years after the 1990 Report of the Commission and four years after the 1996 Report of the Ad Hoc Committee, the major partners in the correction of the 10/90 gap organized the first International Conference on Health Research for Development with about 800 participants from 102 countries.

The Conference concluded with the adoption of the Bangkok Action Plan.

Insert 3.3 summarizes the main recommendations made in the 2000 Bangkok Action Plan together with some of the main actions which have been taken since 2000 to implement them.

Insert 3.3

Implementation of the recommendations of the 2000 Bangkok Action Plan

Problems	Recommendations	Implementation (as of December 2003) ⁴
1. Knowledge production	<p>Global level</p> <ul style="list-style-type: none"> Strengthen role of universities. Foster public-private partnerships. Support initiative on sexual violence. Advocate for research on child health. <p>Regional level</p> <ul style="list-style-type: none"> Identify gaps in knowledge. Establish regional clearinghouses/ database on human and institutional resources, projects, funds and best practices. Develop regional mechanisms to promote health research. Promote N/S + S/S collaboration in priority areas. Promote regional health research journals. <p>National level</p> <ul style="list-style-type: none"> Systematic assessment of research quality. Dissemination of knowledge based on the latest communications technology. Involvement of all stakeholders in the knowledge cycle. Build capacity for information and communication technologies (ITCs). Conduct research synthesis. Support national burden of disease studies. Develop national research policies and priorities. Promote multi- and inter-disciplinary research. 	<p>Examples of action at the global level</p> <ul style="list-style-type: none"> An analysis undertaken by the Initiative on Public-Private Partnerships for Health (www.ippph.org) showed that more than 70 health-related public-private partnerships and networks were created between 1995 and 2003 (as compared to about a dozen in the 1980s), particularly in the fields of HIV/AIDS, tuberculosis, malaria, leishmaniasis, schistosomiasis, pneumococcal diseases, STDs, dengue, meningitis, human trypanosomiasis, nutrition and child health, sexual violence, road traffic injuries, health policies and systems, cardiovascular diseases, cancer and mental health. INCLIN (1980) became INCLIN Trust in 2000 (64 institutions, 26 countries) (www.inclen.org). World Summit on Children in May 2002. <p>Examples of action at the regional level</p> <ul style="list-style-type: none"> INCLIN Trust activities at the regional level (www.inclen.org). Creation of INDEPTH network in 1998 (www.indepth-network.net) with regional activities. Creation of the Asia-Pacific Health Research Forum in 2000. Creation of the South Asian Forum for Health Research in 2003, as chapter of the Asia-Pacific Forum. Creation of the African Health Research Forum at the Global Forum for Health Research meeting in Arusha (Forum 6, 2002). Regional collaboration meetings in Central and Latin America, Central Asia, francophone Africa. <p>Examples of action at the national level</p> <ul style="list-style-type: none"> COHRED Working Group on communication: objective is to strengthen communication at country level (action in Brazil, Cuba, Ghana, Indonesia, Philippines, South Africa, Tanzania, Thailand). Brazil CAPES (Ministry of Education) links Brazilian researchers with some 3000 international journals. India: Health Internet Project on malaria and tobacco at disposal of health personnel. Philippines: Zonal Health Research Centers in almost all regions of the country. Thailand: e-libraries and networks of researchers from universities on interdisciplinary health issues. Uzbekistan: launching in 2002 of a national ENHR network with some 80 national organizations. Creation of a number of important information networks, with impact at the national, regional and global levels. See chapter 8 "Information networks in health research".

Source: Global Forum for Health Research

⁴ A number of examples are drawn from the study undertaken by M. Jegathesan for the Secretariat of the Interim Working Party, following the 2000 Bangkok Conference, entitled *A Biennium since Bangkok: Progress Visited*, Geneva, October 2002.

Insert 3.3 (continued)

Implementation of the recommendations of the 2000 Bangkok Action Plan

Problems	Recommendations	Implementation (as of December 2003)
2. Capacity development	<p>Global level</p> <ul style="list-style-type: none"> Funding agencies to integrate capacity development in each project. Develop guidelines and tools. Develop access to literature/database. Develop strategic partnerships. <p>Regional level</p> <ul style="list-style-type: none"> Develop models for research capacity building specific to the region. Promote political commitment for regional collaboration. Map centres of excellence for regional capacity building. <p>National level</p> <ul style="list-style-type: none"> Management and leadership training programmes. Viable research careers. Efforts should primarily focus on institutional development, involving communities and health care providers. 	<p>Examples of action at the global level</p> <ul style="list-style-type: none"> In 2004, WHO will publish <i>Knowledge for Better Health</i> focusing on an analysis of health research systems and their central contribution to improving health at country level. Capacity development is a policy of many organizations. However, there is no systematic review of the results achieved. This should be on the priority agenda for the coming years, together with the development of strategic partnerships. See also chapter 6. The WHO-led Health Internetwork Access to Research Initiative (HINARI, started in 2001) currently provides access to 2000 electronic journals for low-income countries, on a free basis or at very favourable rates. <p>Examples of action at the regional level</p> <ul style="list-style-type: none"> The objectives of the Regional Forums for Health Research include the Bangkok recommendations regarding the promotion of regional political commitment and collaboration in research capacity development. <p>Examples of action at the national level</p> <ul style="list-style-type: none"> A Collaborative Training Project (CTP) was launched in 2002 by the Alliance for Health Policy and Systems Research, COHRED, the Global Forum for Health Research and INCLEN with three modules: priority-setting methodology, knowledge management, advocacy and leadership. This is work in progress which is being pilot tested.
3. Governance	<p>Global level</p> <ul style="list-style-type: none"> Establish an international Working Party to review options and prepare a proposal for a governance structure. Regular convening of an international conference on health research for development. <p>Regional level</p> <ul style="list-style-type: none"> Mapping of health research and capacity building networks. Develop appropriate governance. Establish Regional Health Research Forums. Regional structures should be based on country needs. <p>National level</p> <ul style="list-style-type: none"> Take stock of status of national health research system. Strengthen national governance structures. Involve all stakeholders in a National Health Research Forum. 	<p>Examples of action at the global level</p> <ul style="list-style-type: none"> An Interim Working Party was formed following the Bangkok Conference and replaced the idea of a formal governance structure with a more decentralized approach based on the support for national and regional health research forums and the convening of a world health research conference on a four-year basis (Bangkok 2000, Mexico Summit in November 2004), in parallel with the regular annual meeting of the Global Forum for Health Research. <p>Examples of action at the regional level</p> <ul style="list-style-type: none"> The objectives of the Regional Forums for Health Research include the mapping of health research centres and capacity building networks. Countries are generally well represented and their voices heard at the Regional Forums. <p>Examples of action at the national level</p> <ul style="list-style-type: none"> COHRED Working Group on national health research systems works with country teams from Brazil, Cambodia, Cuba, Ghana, Indonesia, Laos, Philippines, South Africa, Tanzania, Thailand. Only a few countries in the world have created a National Health Research Forum (for example Ecuador, Tanzania). The development of national governance structures in most countries is only in the beginning stages.

Insert 3.3 (continued)

Implementation of the recommendations of the 2000 Bangkok Action Plan

Problems	Recommendations	Implementation (as of December 2003)
4. Lack of financing	<p>Global level</p> <ul style="list-style-type: none"> • 2% of national health budgets + 5% of health-related foreign aid. • Explore the possibility to generate funds for health research through debt relief for health research or a travel tax. • Urge international agencies to reserve a percentage of funding for health research. • Stimulate public-private partnerships. • Develop tools for the monitoring of resource flows for research. <p>Regional level</p> <ul style="list-style-type: none"> • 2% of national health budgets + 5% of health-related foreign aid. • Urge regional organizations to reserve a percentage of their budgets to create a fund for health research. • Regional priorities should be based on country priorities and determined by burden of disease, social and economic determinants, gender and social equity. • Establish database to identify resource needs, track results and leverage resources. <p>National level</p> <ul style="list-style-type: none"> • 2% of national health budgets + 5% of health-related foreign aid. • Establish a Central Planning Unit (involving the government, donors and NGOs) to ensure that health research funding is aligned with national priorities. • Negotiate with donors long-term funding of research. 	<p>Examples of action at the global level</p> <ul style="list-style-type: none"> • The recent efforts to better prioritize health research are key to increasing financing for priority research. • Starting in 1999, the Global Forum for Health Research together with partners sponsored the Resource Flows Project. Results were published in October 2001. See also Chapter 5 below on "Progress in measuring the 10/90 gap". • Since the proposal by the Commission on Macroeconomics and Health in December 2001 to create a Global Health Research Fund, various options were discussed at Forum 6 in November 2002 and continue to be studied, including the creation of a virtual fund. • Only limited information exists on investments in health research financed by aid agencies as a proportion of their health budget. See also chapter 5 below on "Progress in measuring the 10/90 gap". • More than 18 health-related public-private partnerships were created during the period 2001-2003. <p>Examples of action at the regional level</p> <ul style="list-style-type: none"> • Very limited action in the mobilization of financing at the regional level. However, preliminary discussions on global financing needs include partners at the global, regional and country levels. • Efforts to systematically define health research priorities at the country, regional and global levels are at an early stage. Much more work is needed in order to develop a method for mapping priorities with a systematic link between country, regional and global priorities. It is urgent to accelerate this process, particularly at the country level, applying the principle of subsidiarity for defining the research to be undertaken at the regional and global levels. <p>Examples of action at the national level</p> <ul style="list-style-type: none"> • Based on a study undertaken by the Global Forum for Health Research and its partners,⁵ only Brazil and Cuba approached the 2% mark. Most other countries invest only a fraction of the 2% recommended. See chapter 5. • Only limited information exists on investments in health research financed by aid agencies as a proportion of their health budget. See also chapter 5.

⁵ Global Forum for Health Research, *Monitoring Financial Flows for Health Research*, October 2001

Section 5

Summary of the recommendations made since 1990, main results and challenges for the Mexico Summit, Forum 8 and beyond

There is a remarkable consensus between the 1990 Commission, the 1996 Ad Hoc Committee and the 2000 Bangkok Action Plan on the actions needed to correct the 10/90 gap. Basically, all three reports focus on the following five recommendations:

1. The imperative need to correct the 10/90 gap in health research and set priorities taking into account the global burden of diseases and their determinants

The three reports drew attention to the need to correct the 10/90 gap and to set priorities taking into account the global burden of diseases and their determinants. Furthermore, the reports drew attention to the need for health research to focus not only on (a) biomedical research, but also (b) on sectors other than health which have a profound influence on people's health, (c) on social and behavioural sciences, (d) management, (e) health policies and (f) allocation decisions.

The major health challenges facing the world today will not be solved without this massive reallocation from low- to high-priority projects, both at the country and the global levels. In the words of the 1996 Ad Hoc Committee Report, "Health research will be as vital for the future as it has been in the past 100 years. There are many health problems that remain unsolved because too little is understood about them, or because there are too few or no tools yet available to prevent or treat them, or because the existing tools are not being put to the most efficient use for technical or policy reasons."

Results to date:

- From a totally unknown concept in 1990, the existence of the 10/90 gap is now widely recognized. For lack of reliable data, it is not known whether it has changed much since 1990, but it is undeniable that many actions have been undertaken in the past 14 years (see Inserts 3.1, 3.2 and 3.3) which have had a substantial impact on the promotion of research on neglected diseases and health determinants.
- Considerable progress has been made in the field of priority setting. From a concept largely unknown in 1990, the need for priority setting is now largely recognized and a number of countries have defined their research priorities based on the ENHR approach with support from COHRED. Furthermore, the Global Forum for Health Research developed the Combined Approach Matrix for priority setting (combining the different methods developed in the 1990s), which has been used as a guide by TDR for defining its future research agenda and is starting to be applied by a number of global health research networks and a number of countries.

Challenges for 2004 and beyond

- With the combined efforts of all partners, the objective should be to move from a 10/90 gap today to a 20/80 gap in 10 years' time.
- Priority-setting exercises are still limited to a few countries and institutions and a major effort is needed in the coming years to ensure that all countries and institutions

base their resource allocations on the burden of diseases, the main determinants of health and equity considerations in a systematic exercise for priority setting.

- Few priority-setting exercises for health and health research systematically take into account actors and factors beyond the biomedical field (i.e. the individual, behavioural and community dimensions; the sectors other than health having a profound effect on the health status of a population, such as education and environment; and macroeconomic and health policies). These dimensions need to be systematically included in the priority-setting exercises in the future, to ensure the most effective and efficient use of the limited resources available for health research.
- Finally, a major effort will be needed in the future to more systematically link the international and national health research agendas.

2. Build the capacity of health research systems in developing countries

Research capacity building in developing countries is the second strong recommendation of the three reports and is considered as a central element of the correction of the 10/90 gap. Capacity building is viewed as necessary for a country to define and address its specific priority problems and to be able to join the efforts of the international community on problems which are considered of high priority at the national level.

Results to date:

- Capacity building is a policy of most organizations and important efforts were undertaken in the 1990s in this field. A number of countries have succeeded in building a substantial research capability and are active partners in international health research.

- However, most low-income countries have very limited research capability to identify and confront their priority health problems and to benefit from international health research collaboration.
- The WHO publication *Knowledge for Better Health* (2004) focuses on an analysis of health research systems and their central contribution to improving health at the country level.

Challenges for 2004 and beyond

- A systematic review of the results achieved over the past 10 years and the development of a “facilitation unit” (as proposed by the 1990 Commission) for capacity building in the Least Developed Countries should be part of the priority agenda for the coming years.
- A comparison of research capacities with the priority list of health problems at the national level will enable countries to identify the necessary measures to ensure the best match between the two.

3. Create international research networks and public-private partnerships

In the words of the 1990 Commission, it is essential to “promote the steady growth of collaborative international research networks as the principal means for mobilizing scientific talent to attack common problems.” Within this context, the Committee strongly recommended the involvement of the private sector and the development of public-private partnerships when neither the public sector nor the private sector alone could solve the problems at hand.

Results to date:

- The number of collaborative international research networks and programmes increased rapidly between 1995 and 2003, when more than 70 health-related public-private partnerships and networks were

created (as compared to about a dozen in the 1980s), particularly in the fields of HIV/AIDS, TB, malaria, leishmaniasis, schistosomiasis, pneumococcal disease, STIs, dengue, meningitis, human trypanosomiasis, nutrition, road traffic injuries, health policies and systems, CVDs, cancer and mental health.

Challenges for 2004 and beyond

- These partnerships are very important instruments linking the public sector, the private sector and international organizations, where none of them could succeed individually. The challenge for the future will be to ensure their continued viability, efficient delivery of products and strong linkage with the national health systems.

4. Increase funding for health research by developing countries

All three reports recommended that developing countries substantially increase their health research budgets to ultimately reach the target of 2% of national health expenditures. They also recommended that foreign aid agencies invest 5% of their health budget in health research and capacity building. The 1996 Ad Hoc Committee went further by recommending that resources be reallocated from the health budget to the health research budget, based on the high returns expected from investments in health research. The 2000 Bangkok Action Plan proposed that tools be developed to systematically monitor resource flows to health research.

Results to date:

- Based on a study undertaken by the Global Forum for Health Research and its partners⁶, only Brazil and Cuba approached the

2% mark. Most other countries invest only a fraction of the 2% recommended (see also chapter 5). Regarding foreign aid agencies, very limited information is available on investments in health research financed by them as a proportion of their health budget.

Challenges for 2004 and beyond

- A systematic effort is needed in the coming years at the international and national level to measure the allocation of health research funds by disease and by determinant for all countries and institutions, based on the first preliminary efforts undertaken in the past few years.
- The work of the Commission on Macroeconomics and Health should be systematically pursued at country level to document the high benefits for each country and for the world as a whole of prioritizing health research at the global, regional and national levels and of redirecting health research from low- to high-priority projects.
- This information should be made widely available at cabinet level in each country and in general to all stakeholders in health and health research.
- The links between the horizontal and vertical approaches to improving health and developing health research should be systematically studied and reinforced.

5. Governance and monitoring progress in health research

The 1990 Commission and the 1996 Ad Hoc Committee recommended the creation of an independent forum for investors in international health research to monitor the progress made in the correction of the 10/90 gap and to promote financial and technical support for research on health problems in developing countries. This mechanism should

⁶ Global Forum for Health Research, *Monitoring Financial Flows for Health Research*, October 2001

not operate research programmes, but rather promote action by others. In this field of action, the 2000 Bangkok Action Plan went further and recommended that this central forum for health research be complemented by regional health research forums as well as national health research forums. National forums should include all stakeholders in health and health research, i.e. representatives of the various ministries concerned with health and development (health, finance, education, environment, etc.), research institutions, media, community organizations, private-sector companies and advocacy groups.

Results to date:

- COHRED was created in 1993 to advocate for the ENHR strategy. The Global Forum for Health Research was created in 1998 with a mandate to help correct the 10/90 gap. INCLIN, created in 1980, became INCLIN Trust in 2000 to disseminate knowledge and tools for the most efficient and effective prevention and treatment strategies.
- At the regional level, the Asia-Pacific Health Research Forum was created in 2000 (followed by the South Asian Forum for

Health Research in 2003, as a special chapter of the Asia-Pacific Health Research Forum). The African Health Research Forum was created in 2002. Numerous collaboration meetings have been held in the Central and Latin American region, as well as in francophone Africa and Central Asian countries.

- At the national level, a few countries (e.g. Ecuador and Tanzania) have launched a National Health Research Forum.

Challenges for 2004 and beyond

- The regional and national health research forums represent the backbone of the “pluralistic, worldwide health research system that will nurture productive national scientific groups linked together in transnational networks to address both national and global health problems” referred to by the 1990 Commission on Health Research for Development. They are still in the very early years of their development and require considerable support from the international community, both financially and technically. These are great challenges for the coming years but very promising investments.