

Chapter 1

Health research, health, development, poverty and global security

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Section 1

The vicious circle of ill health and poverty

Achievements in the field of health over the past 50 years have been greater than in any other period in history. They include a rise in life expectancy of 20 years in lower-income countries (from 44 to 64 years), a 50% reduction in infant mortality, an 80% increase in elementary school enrolment, a doubling of access to safe drinking water, the eradication of smallpox and the near-eradication of polio. And all this was achieved at a time when the population more than doubled over the same period.

But today the very foundations of these achievements are threatened by factors both within and outside the health field. They include: the HIV/AIDS epidemic (which may reverse all the development gains made in many sub-Saharan African countries over recent decades), the development of antimicrobial resistance, the sharp increase in tuberculosis, the steady rise in substance abuse, the explosion of noncommunicable diseases and the further degradation of the environment, with direct consequences for people's health.

With the weakening of the basis for further progress in the health field or even, in certain countries, a marked decrease in people's health status, the foundation of development in general is being threatened, as underlined

by Walter Fust¹ at the Forum 5 meeting of the Global Forum for Health Research: "Without progress in health and development, there will be no global security, and industrialized countries will in turn be confronted with all the negative consequences of preventable man-made disasters."

The aim of this chapter is to draw attention to:

- the central importance of health for development
- the central importance of health for the fight against poverty
- the central importance of development and a reduction in poverty for global security, and
- the central importance of health research for health.

1. The central role of health for development

There is a strong and direct link between people's health and the development of their country. At Forum 5 in October 2001, Richard Feachem² summarized these links in the following way:

- poor health reduces healthy life expectancy and educational achievement;
- it reduces investment and returns from investment (as production, productivity and employment decrease);

¹ Walter Fust, Director, Swiss Agency for Development and Cooperation. Paper presented at Forum 5, Global Forum for Health Research, October 2001.

² Richard Feachem, Director, Institute for Global Health, University of California. Paper presented at Forum 5, Global Forum for Health Research, October 2001.

- it reduces parental investment in children (and increases the fertility rate);
- it increases health inequity and poverty; and
- it reduces social and political stability.

These factors affect the very core of growth and development.

2. The central role of health to fight poverty: a two-way street

The negative effect of poor health on growth and development summarized above will of course negatively affect the situation of the poorer population through lower production and employment, lower social budgets, lower educational achievements, and so on. This may be called the indirect effect.

But there is a more devastating, more direct and self-reinforcing effect of poor health on poverty, through the vicious circle of poverty, i.e. malnutrition, disease, unemployment or underemployment, low income, poor housing, low level of education, low productivity, no access to drinking water, no access to health care services, larger number of children, unwanted pregnancies, substance abuse. In addition, poor people are more likely to suffer from the degradation of the environment and from discrimination. Once trapped in this vicious circle, the chain of causality is very difficult to break, as pointed out by numerous reports, including the People's Charter for Health³ and the World Bank reports^{4,5,6}.

3. Three country examples

Mozambique

In his keynote address to Forum 5, Pascoal Mocumbi⁷, Prime Minister of Mozambique, summarized the worsening health situation in his country (as well as in other countries with similar characteristics) in the following way:

- life expectancy, already low, is predicted to decrease to 36 years by 2010, due to the HIV/AIDS epidemics;
- maternal and infant mortality rates may increase by 20% by 2005;
- 58% of the population is undernourished;
- only about one third of the population has access to clean water;
- some 60% of the population does not have access to health services.

In his analysis, the Prime Minister underlined the strong causality link between poor health and poverty (and vice versa). The most vulnerable of all, he said, were those persons cumulating the highest risk factors, which he identified as (a) being poor, (b) being female and (c) being adolescent.

India

The catastrophic two-way link between poverty and ill health is underlined by the results of the United Nations Children's Fund survey of 90 000 women and children in India during 1998-99, which focused on health and nutrition. The survey found that 52% of married women (aged 15-49) and

³ Ravi Narayan, Community Health Adviser, People's Health Assembly, India. Paper presented at Forum 5, Global Forum for Health Research, October 2001.

⁴ World Bank, Health, Nutrition and Population, Poverty Thematic Group, *Socioeconomic Differences in Health, Nutrition and Population in 44 Countries*, November 2000.

⁵ World Bank, *Voices of the Poor (Can Anyone Hear Us?, Crying for Change, From Many Lands)*, Oxford University Press for the World Bank, December 2000.

⁶ World Bank, *Attacking Poverty*, World Development Report 2000-2001.

⁷ Pascoal Mocumbi, Prime Minister of Mozambique. Keynote address at Forum 5, Global Forum for Health Research, October 2001.

74% of young children were anaemic. In the poorer states of Haryana, Rajasthan, Bihar and Punjab, at least 80% of children were anaemic. These results are devastating as anaemia in young children can impair cognitive performance, behavioural and motor development, school achievements and susceptibility to infectious diseases. The survey also found that only 18% of illiterate women had heard of AIDS, as compared to 92% of women with secondary school education.

USA

A 2001 publication⁸ on the relationship between income, socioeconomic status and health in the United States comes to the same conclusion: that income inequality and socioeconomic status are the most significant factors affecting health in this country too. The researchers highlight six areas which

are crucial for the improvement of health inequalities in the United States:

- investing in young children
- providing services to the neediest
- improving the work environment
- strengthening the support provided by the local community
- creating a more equal economic environment
- assessing the impact of economic and social actions on health.

4. The vicious circle at the macroeconomic level

In summary, at the microeconomic level, the poor person has less knowledge, fewer resources and less power to defend his/her health. At the macroeconomic level, the poorer the country, the less it spends on protecting and promoting the health of its population. This was presented at Forum 5 in Insert 1.1.

Insert 1.1

Health spending per capita by level of development⁹

Development category	Tax revenue (% of GDP)	Health spending per capita			
		Total	Public	By donors	Private
Least developed countries	14	\$11	\$6	\$2.3	\$2.7
Other low-income countries		\$25	\$13	\$0.9	\$11.1
Lower middle-income countries	19	\$93	\$51	\$0.6	\$41.4
Upper middle-income countries	22	\$241	\$125	\$1.1	\$114.9
High-income countries	31	\$1,907	\$1,356	\$0.0	\$551.0

⁸ James A. Auerbach and Barbara Krimgold, *Income, Socioeconomic Status, and Health: Exploring the relationships*, National Policy Association, January 2001

⁹ Richard Feachem, Director, Institute for Global Health, University of California. Paper presented at Forum 5, Global Forum for Health Research, October 2001.

The Commission on Macroeconomics and Health estimated that the minimum level of health spending in low income countries to cover essential interventions is US\$30-40 per person per year (as compared to the estimated present level of US\$11 and 25 respectively in the least developed and the low-income countries). This means that the

level of health in these countries may continue to deteriorate in the coming years unless urgent and massive actions are undertaken in the very near future. A summary of the “key findings” and the “Action Plan” proposed by the Commission on Macroeconomics and Health is presented below in Section 4 of this chapter.

Section 2

How to break the vicious circle of “ill health and poverty”?

In September 2000, at the conclusion of the Millennium Summit, world leaders adopted the “United Nations Millennium Declaration” which contained the following key development targets:

- a 50% reduction in the proportion of people living in extreme poverty by 2015
- demonstrated progress towards equality of the sexes and the empowerment of women by eliminating disparity between the sexes in education by 2005
- universal access to primary education by 2015
- a reduction by two-thirds in mortality among children aged under 5 by 2015
- a reduction by three quarters in maternal mortality by 2015
- universal access to reproductive health services by 2015
- implementation of national strategies for sustainable development in all countries by 2005

- a 25% reduction in HIV infection rates among 15-24 year-olds in the worst affected countries by 2005 and globally by 2015
- a 50% reduction in mortality from tuberculosis and malaria by 2010.

These targets have a direct bearing on the health-poverty vicious circle mentioned in Section 1 above. They are very ambitious and will require the mobilization of thousands of institutions in each country and dramatically increased financial resources, both at the country and at the international level, in order to succeed. As underlined in the People’s Charter for Health of December 2000, “to combat the global health crisis, we need to take action at all levels – individual, community, national, regional and global – and in all sectors.”

A summary of some of the main recommendations made in numerous studies and papers (including at Forum 5 in October 2001 and at the International Conference on Health Research and Development in Bangkok in October 2000) is presented below.

No attempt is made to present this list by order of priority. As pointed out in Section 1 above, breaking out of the health crisis requires breaking out of the vicious circle of poverty – an immense and complex task. The solution is unlikely to come from any single intervention, but rather from a combination of many different interventions, bearing on the political, social, economic, physical and cultural causes of poor health.

Some of the main recommendations made in the past two years are as follows:

1. In all countries, revisit the functioning of the public and private components of the primary health care system

The objective of this measure is to make them more effective and comprehensive; appropriate and diversified indicators have to be further developed and progress measured on a regular basis in all countries, particularly with respect to the effectiveness of the system in delivering services to the poorer segments of the population.

The performance of primary health care systems varies in different countries. But even in countries considered to have the better functioning systems, surveys have shown that populations in most of these countries are not satisfied with the results, and in particular with their inability to function as a “health safety net” for the poor.

This means that the principles of universal, comprehensive primary health care, enshrined in the 1978 Alma Ata Declaration,

combining medical with social interventions, are far from being implemented today.

2. Create employment at low cost per job

The vicious circle of poverty and ill health draws attention to the need to create jobs for the young and for those entering the labour market as agriculture becomes increasingly efficient. In India alone, more than 10 million jobs have to be created each year. A small proportion will be created in the modern industrial sector or the service sector, at a cost of *a few thousand dollars per job*. However, as resources are short, most will have to be created *at a few hundred dollars per job*, in the small-scale handicraft and service sectors, i.e. at one tenth (or less) of the cost per job in the so-called modern sector. This underlines the importance of the role of the banking system and financial intermediaries, particularly the micro-credit sector. The public sector has an important policy role to play at the country and international levels (i.e. bilateral and multilateral development agencies) because it is more expensive to make micro-loans and small loans than bigger loans, and therefore the private market rules favour the bigger projects in the modern sector at relatively high costs per job created. As a result, there is a discrepancy between the private interest (making loans available at low cost to the bank) and the public interest (creating jobs at low cost per job). This discrepancy must be addressed by appropriate government policies.

3. Look at poverty and poor health problems from a gender perspective¹⁰

In recent years, gender issues have been highlighted by most organizations concerned with the promotion of development, justifying this with two main arguments:

- *Efficiency and effectiveness* require that both women and men are at the heart of

¹⁰ Based on Annex 1.1 to this chapter.

development. So long as artificial constraints prevent the full participation of both sexes, societies will be unable to reach their potential for meeting the needs of their citizens.

- *Equity* requires that women and men should have the same opportunity to be active citizens, participating in the development process and having equal access to its benefits. Unless this is achieved, individuals will not be able to realize their potential for health and well-being.

These arguments are increasingly accepted in the international health arena. Policies and practices are gradually being reshaped in recognition of the need for gender sensitivity. Though they have many health problems and health care needs in common, women and men are also divided both by their biological sex and their social gender. Unless these differences are taken seriously, the delivery of medical and public health services will be severely constrained in their efficacy and their equity. Under these circumstances, it is likely to be women in the poorest communities who will be worst affected. These issues are therefore of particular relevance in debates about health and poverty. A fuller discussion of these issues is presented in Annex 1.1.

4. Support, and ally with, civil society organizations

The role of government and public sector institutions in general (including the United Nations and the multilateral international public organizations) is to defend public interest. The private-sector actions are based on the market system and private interests. The civil society organizations (CSOs) are

private organizations with a public interest goal. Each sector has its role/responsibility and all three sectors are crucial for the global functioning of society.

In many countries, CSOs are well developed and play an important and, in some cases, even central role in complementing the role of government in the defence of public interests, particularly in the poverty-related sectors such as health, nutrition, water supply, micro-credit, adult education and small productive activities.

Because of their link to poverty and their public-interest orientation, CSOs are natural allies of governments, the United Nations and multilateral international public organizations in their quest for better health for the poor.

CSOs are often not well known by the public sector agencies and collaboration between CSOs and the public sector is fragmented and unsystematic. The CSO resource base, both human and financial, is often fragile. Many very effective examples of collaboration exist and have been illustrated, but the potential for further progress is considerable, both at the country and international levels.¹¹ In his intervention at Forum 5, David Nabarro called for “networks with common purpose, shared values and open processes”.¹² The benefits of such a collaboration would include participation of people and people’s organizations in:

- formulation of policies and programmes for the better health of the poor
- implementation of such programmes
- evaluation of the results of such policies and programmes.

¹¹ In 2001, the World Health Organization launched a “Civil Society Initiative”, led by Eva Wallstam, and located in the External Relations and Governing Bodies Cluster.

¹² David Nabarro, Executive Director, World Health Organization. Remarks made in the Closing Plenary Session of Forum 5, Global Forum for Health Research, October 2001.

In summary, such participation by CSOs (including the most vulnerable, i.e. the poor, women and adolescents, as identified by Prime Minister Mocumbi) could play a crucial role in the effectiveness of such policies and the scaling up of programmes, in both the health sector and in sectors other than health (see also Section 4 below: Recommendations of the Commission on Macroeconomics and Health).

5. Undertake multidisciplinary actions in sectors other than health, but having a crucial role to play in the promotion of health (environment, education, water supply and sanitation, housing, macroeconomic policies, etc.)

To fight poverty and ill health, it is necessary to act in all the following sectors:

(a) Environment

Water and air pollution, toxic chemicals, deforestation and soil erosion have a negative impact on people's health, particularly that of the poor. Strategic and collaborative actions between the public and private sectors, as well as with CSOs, could bring important benefits for the health of the poorer populations.

(b) Education

Many studies point to the strongly positive correlation between health and education¹³. Actions should include:

- primary education and alphabetization for all over the next two to three decades;
- specific health and hygiene education programmes in all elementary school curricula and alphabetization classes.

(c) Water supply and sanitation¹⁴

Some 1.1 billion people do not have access to

safe drinking water and about 2.4 billion live without adequate sanitation. As a result, about 250 million people suffer from water- and sanitation-related diseases each year, and over three million die annually, most of them women and children. Actions in the field of water supply and sanitation can make key contributions to the reduction of cholera, typhoid, dysentery, skin and eye infections (including trachoma) and worm infections (including guinea worm disease and schistosomiasis).

(d) Macroeconomic policies

Although often considered remote from the everyday life of the poorer people, macroeconomic policies have profound implications for people's health, particularly that of the poor. These include budget allocations, all aspects of governance in the running of the government, structural adjustment programmes, research policies and trade agreements.

There is a need for a systematic evaluation of the impact of macroeconomic policies, budget allocations and governance decisions on people's health.

6. Build social safety nets

As pointed out in the 2000-2001 World Development Report,¹⁵ measures to reduce poverty must include "social safety nets" when the efforts undertaken to reduce the risk of economic crises, epidemics, natural disasters or conflicts prove to be insufficient to protect the very poor. It is important that social safety nets become a standard and permanent instrument in the hands of the public sector, with budgetary rules ensuring their financing when the need arises.

¹³ As pointed out by Derek Yach (Executive Director, Noncommunicable Diseases, World Health Organization), tobacco use by women in Bombay shows a rate of 72% for illiterates, 52% for primary school graduates, 24% for secondary school graduates, going down to 10% for college graduates. NCD Conference, December 2001.

¹⁴ Source: publications of the Water Supply and Sanitation Collaborative Council, c/o WHO, Geneva.

¹⁵ World Bank, *Attacking Poverty*, World Development Report 2000-2001.

7. Increase the effectiveness of donor agencies

Considerable efforts were deployed in the 1990s by the multilateral and bilateral donor agencies to increase the efficiency, effectiveness and relevance of aid programmes. In a first effort, principles have been developed inside the Development Aid Committee of the OECD regarding donor collaboration and coordination, project appraisal, technical cooperation, programme assistance, procurement, impact assessment and evaluation. In a second wave of efforts, very important principles were developed and agreed upon in the field of participatory development and good governance, including the rule of law, public-sector management, democratization and the defence of human rights.

Significant progress has been made in the application of these principles, but it is generally admitted that *much remains to be done*, particularly in the following fields: (a) the setting of priorities (to include global public goods) as pointed out by Walter Fust¹⁶; (b) the integration of aid efforts in national priorities and budgets; (c) the development of national and local capacities; (d) the development of collaboration and partnerships; and (e) the streamlining of aid procedures.

8. Focus on country level efforts and capacity strengthening

Foreign aid represents 0.3% of GNP of the

higher income countries. It is clear that it can only play a small supportive role for the development efforts of the lower income countries and that the major development efforts can only take place and be financed by these countries themselves. In these efforts, an important function of the external support provided is in the field of capacity development of the national and local institutions in the low-income countries, so as to enable them to confront their priority problems.

A discussion of this crucial issue for development and the fight against poverty is presented in **Chapter 7** of this report, which summarizes the efforts undertaken over the past two years regarding research capacity strengthening.

9. Develop and support the development of partnerships in the fight against the “global public bads”¹⁷

All three sectors of society, i.e. the public sector, the private sector and the CSOs, have a crucial role to play in the global functioning of society. However, many problems, particularly those which go beyond national boundaries (referred to above as the “*global public bads*”) are beyond the capacity of any single sector to resolve and require the concerted efforts of actors in the public, private and CSO sectors.

J.F. Rischard¹⁸ points to the “inherently global issues” (IGI), which, by definition, require

¹⁶ As pointed out by Walter Fust, Director, Swiss Agency for Development and Cooperation, “Donor agencies need to reflect more on setting their priorities with a long-term perspective and not to change them every two years”. Paper presented at Forum 5, Global Forum for Health Research, October 2001.

¹⁷ A “global public good” is a public good with benefits that are strongly universal in terms of countries (covering more than one group of countries), people (accruing to several, possibly all, population groups) and generations (extending to both current and future generations). By analogy, the term “global public bads” refers to a situation where a problem does not only affect the persons directly concerned, but its negative effects are strongly universal or are felt directly or indirectly by a majority of the world’s population and over more than one generation (hard drugs, bad health, illiteracy, loss of biodiversity, sea pollution, etc.).

¹⁸ J.F. Rischard, Vice-President, World Bank Europe. Personal reflections presented in Geneva on 17 November 2000. See also: J.F. Rischard, “High Noon: We Need New Approaches to Global Problem Solving, Fast,” *Journal of International Economic Law*, Vol 4, No.3, September 2001 pp 507-527.

“global action”, and compares the “arithmetic development of human institutions” with the “exponential growth of population and global problems”. He distinguishes between four types of IGIs:

- IGIs affecting the global environment: loss of biodiversity, climate warming, deforestation, water depletion, depletion of fish stocks, sea pollution, toxic wastes, etc.
- IGIs whose size and urgency require “global commitment”: ill health, illiteracy, conflicts, etc.
- IGIs requiring a “global regulatory approach”: hard drugs, trade rules, IPRs, taxation, global financial architecture, etc.
- IGIs in the field of universal values: human rights, democratization, etc.

To find joint solutions to these global problems, he proposes the creation of “global issues networks, or GINs”, in a system of “networked governance”. He draws attention to the specific advantages and value added of these global issues networks:

- speed
- legitimacy
- diversity
- compatibility with traditional institutions.

A fuller discussion of the partnerships and governance issues (as a key requisite for development and the fight against poverty) is presented in **Chapter 3** which focuses on the “health research governance” issues and the recent efforts in this field. **Chapter 8** summarizes the functioning and results of a few partnerships in the field of health research.

10. Revisit the global, national and local budget allocations

Public budgets are voted by the legislative branch of governments at the global, national and local levels to defend public interests, i.e.

to solve the problems affecting the people as a whole at the respective levels. *Ideally, budget allocations should be in proportion to the size of the problems to be solved.* In practice, as mentioned above, global problems are receiving scant attention and little budget allocation as there is no equivalent of a world government which would request the budget needed to attack global problems. The United Nations agencies take a global view but they cannot obtain the resources which would be commensurate with the size of the global problems (or sufficiently influence decisions at the country level to ensure the integration of a global perspective at that level).

It is therefore important to compare the size of the public problems to be solved at the local, national and global levels with the budget allocations at these levels. It is likely that the sum total of budgetary allocations for “global public bads” represents only a very small proportion of “total public budgets”, while these global problems account for a much larger proportion of the sum of all the problems affecting the world’s citizens. The challenge for the coming years is to: (a) start measuring this gap; and (b) identify ways and means to act upon it with policy- and decision-makers.

As a result, solutions to world development and poverty problems will necessarily include a major reallocation of funding from the “national and local” problems to the “global” problems, particularly in high-income countries.

11. Develop the political will and empowerment of people

In his keynote address to Forum 5, the Prime Minister of Mozambique concluded that “In the final analysis, we need to do much more to build and maintain political will both to generate funds for research and capacity building, and to ensure that the focus of

research, its agenda, funds, organization and dissemination will be oriented to the needs of the disadvantaged majority, particularly the poor, women and adolescents. Despite rhetorical commitment to improve the health conditions of these vulnerable groups, public and private institutions fall far short of their promises.”

The parallel to political will by governments is the empowerment of the poor to increase their say in the management of society. Some of the measures proposed in the World

Development Report 2000-2001¹⁹ include the following:

- a public feedback mechanism (community-based mechanism to make bureaucracies more accountable)
- increased access to the legal system
- a decrease in state arbitrariness
- access to property for women
- subsidies for girls' education
- mandatory joint titling of land for couples
- making political systems more inclusive and participatory.

Section 3

What is the role of health research? How to make research more effective?

1. What is the role of health research?

In summary, the 11 recommendations outlined above can be more or less efficient and more or less effective in breaking the circle of poverty and ill health, depending on whether they are evidence-based. The role of research is therefore to ensure that the proposed measures are, as far as possible, evidence-based, so that the resources available to finance these measures are used in the most effective way in the fight against poor health and poverty.

Under each of the measures proposed, this requires investigating every facet of the problems, i.e. the objectives and strategies pursued, the design of the activities envisaged, the human and financial resources needed and the definition of the indicators needed to measure results. It covers all sectors and actors involved, as only a multisectoral and multi-actor approach is likely to deliver the best results.

¹⁹ World Bank, *Attacking Poverty*, World Development Report 2000-2001.

Unfortunately, health research has been beset by a number of problems, including misallocation of funds, insufficient funding, inefficiencies, lack of priority setting, insufficient collaboration and failure to ensure that the results of research have an impact on the health problems of the population (the “ivory tower” problem).

2. How to make health research more effective?

(a) Help correct the 10/90 gap

As first pointed out by the Commission on Health Research for Development²⁰ in 1990, only about 10% of health research funding is allocated to 90% of the world's health problems. Since then, many efforts have been undertaken to help correct this serious misallocation of resources, including efforts to develop priority-setting methodologies (see **Chapter 4**: Progress in priority-setting methodologies) and to better identify the priorities for health research (see **Chapter 5**: Priorities in health research). A continuation of these efforts will contribute much to making health research more effective in the coming years.

(b) Increase funding for health research

This recommendation was also made by the Commission on Health Research for Development in its 1990 Report and repeated in many reports since then, the latest appearing in the Commission on Macroeconomics and Health (see Section 4 below), which published its report in December 2001 (see also **Chapter 6** below: Monitoring financial flows in health research).

(c) Improve the efficiency of health research funding

This is part of the efforts undertaken to improve “priority-setting methodologies” (see **Chapter 4** below).

(d) Improve collaboration between the various actors by developing partnerships

For a fuller discussion, see **Chapter 3** (Health research governance) and **Chapter 8** (Some networks in the priority research areas).

(e) Decrease the isolation of research and increase its impact on people's health

The above-mentioned problems, which have plagued research and the researchers for a long time, are partly due to the fact that research is typically seen as an “ivory tower” by politicians, policy-makers and the people themselves.

To decrease the isolation of research and increase its impact on people's health, the advocates of research must demonstrate a commitment to the following eight factors:

- focus on the diseases or determinants causing the highest burden of mortality and morbidity;
- distinguish between the determinants at (i) the individual/family/community level; (ii) the bio-medical level; (iii) the level of sectors other than health (education, environment, employment, housing, water/sanitation, etc.); (iv) the level of the macroeconomic policies of the central government (budget allocations, research policies, governance issues, etc.);
- show that the best existing knowledge is being applied in the search for the new intervention;
- demonstrate the multisectoral approach of the research undertaken (including behavioural and cultural factors; bio-medical factors; environmental and educational factors; political and macroeconomic factors) and aim at selecting the project with the more

²⁰ Commission on Health Research for Development, *Health Research, Essential Link to Equity in Development*, 1990.

- promising cost-effectiveness (i.e. in terms of expected healthy life years saved);
- transform the new knowledge into policies;
- measure the effectiveness of the new policies and revisit the policies, if necessary, based on the results;
- measure the degree of absorption of the new knowledge by the people, particularly the poor;
- measure the improvement in the health status of the population, particularly the poor.

Section 4

Recommendations of the Commission on Macroeconomics and Health

The Commission on Macroeconomics and Health (CMH) was instituted by the World Health Organization in January 2000 and published its work in December 2001. Its preliminary findings were summarized by Commissioner Richard Feachem, Co-Chair of Working Group 2 on Global Public Goods for Health, at the Forum 5 meeting of the Global Forum in October 2001.

Its main message is the following: “Although health is widely understood to be both a central goal and an important outcome of development, the importance of investing in health to promote economic development and poverty reduction has been much less appreciated. We have found that extending the coverage of crucial health services, including a relatively small number of specific interventions, to the world’s poor could save millions of lives each year, reduce poverty, spur

economic development, and promote global security. This report offers a new strategy for investing in health for economic development, especially in the world’s poorest countries.” “Such an effort would require two important initiatives: a significant scaling up of the resources currently spent in the health sector by poor countries and donors alike; and tackling the non-financial obstacles that have limited the capacity of poor countries to deliver health services. We believe that the additional investments in health – requiring of donors roughly one-tenth of one percent of their national income – would be repaid many times over in millions of lives saved each year, enhanced economic development, and strengthened global security.”²¹ Insert 1.2 summarizes the “Key Findings” and Insert 1.3 the “Action Plan” proposed by the Commission. The financial proposals of the Commission are summarized in Insert 1.4.

²¹ World Health Organization, *Macroeconomics and Health: Investing in Health for Economic Development*, Report of the Commission on Macroeconomics and Health, December 2001.

Insert 1.2

Key findings of the Commission on Macroeconomics and Health, December 2001

1. **Importance of investing in health:** the importance of investing in health has been greatly underestimated by analysts, governments in developing countries and the international donor community; increased investments in health would translate into hundreds of billions of dollars per year of increased income in the low-income countries.

 2. **A few health conditions are responsible for a high proportion of the health deficit:** HIV/AIDS, malaria, TB, childhood infectious diseases, maternal and perinatal conditions, tobacco-related illnesses, and micronutrient deficiencies.

 3. **The HIV/AIDS pandemic:** it is an unparalleled catastrophe and requires special consideration.

 4. **Reproductive health:** investments in reproductive health, including family planning, are crucial accompaniments of investments in disease control.

 5. **Health spending in low-income countries:** it is insufficient to address the health challenges they face (minimum financing needed is estimated at US\$30-40 per person/year to cover essential interventions).

 6. **Financing by low-income countries:** poor countries can increase the domestic resources that they mobilize for the health sector and use those resources more efficiently.

 7. **Donor finance:** donor finance will be needed to close the financing gap, in conjunction with best efforts by the recipient countries.

 8. **Health coverage for the poor:** this would require greater financial investments in specific health-sector interventions, as well as a properly structured health delivery system that can reach the poor.

 9. **Global public goods and poverty:** an assault on diseases of the poor will also require substantial investments in global public goods.

 10. **Coordinated actions:** by the pharmaceutical industry, governments of low-income countries, donors and international agencies are needed to ensure that the world's low-income countries have reliable access to essential medicines.
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Insert 1.3

Action agenda proposed by the Commission on Macroeconomics and Health, December 2001

1. Establishment of National Commissions on Macroeconomics and Health (NCMH): each low- and middle-income country should establish a NCMH, to formulate a long-term programme for scaling up essential health interventions as part of their Poverty Reduction Strategy.

2. Country financing: the financing strategy should envisage an increase in domestic budgetary resources for health of 1% of GNP by 2007 and 2% of GNP by 2015.

3. Donor financing: the international donor community should commit adequate grant resources for low-income countries to ensure universal coverage of essential interventions, scaled-up R&D for diseases of the poor, and other global public goods. Insert 1.4 summarizes the costs of this proposal. Where funds are not used appropriately, credibility requires that funding be cut back and used to support capacity building and NGO programmes.

4. New funding mechanisms: the international community should establish new funding mechanisms:

- the Global Fund for AIDS, TB and Malaria (US\$8 billion by 2007)
 - the Global Health Research Fund (US\$1.5 billion by 2007)
 - additional outlays (US\$1.5 billion for TDR, IVR, HRP, Global Forum for Health Research, various public-private partnerships aiming at new drug and vaccine development)
 - country programmes should direct at least 5% of outlays to operational research.
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5. Other global public goods: financing should be bolstered through additional financing of relevant international agencies such as WHO and the World Bank (US\$1 billion/year by 2007 and US\$2 billion/year by 2015).

6. Orphan drug legislation: to support private-sector incentives, existing orphan drug legislation in the high-income countries should be modified to cover diseases of the poor.

7. Pharmaceutical industry: in cooperation with low-income countries and WHO, the international pharmaceutical industry should ensure access of the low-income countries to essential medicines through commitments to provide essential medicines at the lowest viable commercial price in the low-income countries, and to licence the production of essential medicines to generics producers as warranted by cost and/or supply conditions.

8. WTO member governments: should ensure sufficient safeguards for the developing countries, and in particular the right of countries that do not produce the relevant pharmaceutical products to invoke compulsory licensing for imports from third-country generics suppliers.

9. IMF and World Bank: should work with recipient countries to incorporate the scaling up of health and other poverty-reduction programmes into a viable macroeconomic framework.

Insert 1.4

Donor financing required for universal coverage of essential interventions, R&D for diseases of the poor and provision of other global public goods as proposed by the CMH (in billions of US\$/year)

Components	By 2007	By 2015
Country-level programmes	22.0	31.0
R&D for diseases of the poor	3.0	4.0
Provision of other global public goods	2.0	3.0
Total	27.0	38.0

Section 5

Conclusions

In summary:

- Good health is central for (a) the promotion of development, (b) the fight against poverty and (c) global security. This is not surprising, as good health, together with education, correspond to building up the human capital which is necessary for the efficient creation and use of the physical capital of a nation.
- The promotion of development and the fight against poverty have to be looked at separately, as development by itself has not been a very efficient tool to fight poverty, and poverty has persisted in many cases in the face of rapid growth and development.
- Over the past 50 years, health and education

have been defined as the “social sectors”. As a result, politicians and finance ministers do not consider them as “economic sectors”. However, they may possibly be the most “economic” sectors, given their contribution to development in general and the fight against poverty in particular. This labelling of “social sector” may explain the under-investment in both health and education in most countries. Investing in health (and education) is good economics for the promotion of development and the fight against poverty.

- Health research is central for the efficient and effective promotion of health. But health research has to be made more

effective and brought out of its ivory tower through the measures identified under Section 3 above.

- The often mentioned conflict between horizontal and vertical approaches to health

(and health research) is a false problem. Both are needed in a multisectoral and multi-actor approach to delivering health (and the results of health research) to the people, in particular the poor.

Annex

Poverty and health from a gender perspective*

1. Putting gender on the international agenda

In recent years, gender issues have been highlighted by most organizations concerned with the promotion of development and the enhancement of human well-being, justifying this with two main arguments:

- *Efficiency and effectiveness* require that both women and men are at the heart of development. So long as artificial constraints prevent the full participation of both sexes, societies will be unable to reach their potential for meeting the needs of their citizens.
- *Equity* requires that both women and men should have the same opportunity to be active citizens, participating in the development process and having equal access to its benefits. Unless this is achieved, individuals will not be able to realize their potential for health and well-being.

These arguments are increasingly accepted in the international health arena. Policies and practices are gradually being reshaped in recognition of the need for gender sensitivity. Though they have many health problems and health care needs in common, women and men are also divided both by their biological sex and their social gender. Unless these differences are taken seriously, the delivery of medical and public health services will be severely constrained in their efficacy and their equity. Under these circumstances, it is likely to be women in the poorest communities who will be worst affected. These issues are therefore of particular relevance in debates about the 10/90 problem.

* This text was contributed by Lesley Doyal, School for Policy Studies, University of Bristol.

2. Understanding sex and health

The biological differences between women and men are reflected in the health problems they experience. Some of these stem from male and female reproductive functioning, with women facing major hazards as a result of their capacity for pregnancy and childbearing. This gives them 'special needs' for care which have to be met if they are to realize their potential for health. Other conditions are not directly connected with sexual or reproductive functioning but are nonetheless sex specific because they affect particular organs: cancers of the prostate and cervix for example.

There are also marked sex differences in the incidence, symptoms and prognosis of a wide range of diseases and conditions that affect both males and females. These are evident in noncommunicable diseases such as coronary heart disease and lung cancer and also in a wide variety of communicable diseases including tuberculosis and malaria. Recent studies suggest that these differences are due in large part to previously unrecognised genetic, hormonal and metabolic differences between men and women. More research is needed to map these differences in greater detail. However the following facts give some indication of why biological differences between the sexes need to be taken more seriously in all areas of health research:

- Men typically develop heart disease ten years earlier than women.
- Women's enhanced immune systems make them more resistant than men to some kinds of infection
- Women are around 2.7 times more likely than men to develop an auto-immune disease.
- Male-to-female infection with HIV is more than twice as efficient as female-to-male infection.

3. Understanding gender and health

Biological differences are not the only ones shaping variations in male and female patterns of health and illness. Women and men often lead very different lives and this can have a major effect on their well-being. Differences in their living and working conditions and in the nature of their duties and their entitlement to resources will put women and men at differential risk of developing some health problems while protecting them from others.

There is now an extensive literature documenting the relationship between economic, cultural and social factors and women's mental and physical well-being. The gender divisions in domestic work have been highlighted as a potential risk, especially when they are combined with paid work outside the home. Women's vulnerability to violence in the home and their high rates of depression have also received considerable attention. The UNDP *Human Development Report 1998* pointed out that there are no societies in which women are treated as equals with men. However it is clear that many of the most extreme gender inequalities are to be found in the world's poorest countries. If the determinants of women's health are to be properly understood and appropriate interventions developed, the impact of these gender inequalities will need to be central to the research agenda.

As the problems faced by women are increasingly recognized, the links between masculinity and well-being are also beginning to emerge. At first glance, maleness might seem to be

straightforwardly beneficial to men because it offers them privileged access to a range of potentially health-promoting resources. But being a man may also require the taking of risks which can be damaging to health. In many societies the traditional role of breadwinner continues to put men at greater risk than women of dying prematurely from occupational injuries. In order to demonstrate their masculinity they are also more likely to engage in dangerous and/or violent activities including smoking, drinking to excess, driving too fast and indulging in unsafe sex.

Again, these examples of gendered behaviour may be most pronounced in the poorest societies and researchers need to take them into account if they are to offer policy-makers appropriate evidence. A brief indication of the importance of gender as a determinant of the health of both women and men is given in the facts below:

- In most countries, men are more likely than women to commit suicide but women are more likely to attempt it.
- Both community-based studies and research on treatment seekers indicates that women are two to three times more likely than men to be affected by Common Mental Disorders (CMD) such as depression or anxiety.
- Men are more likely than women to die of injuries but women are more likely to die of injuries sustained at home.
- The large differential between male and female smoking rates is beginning to narrow as young women take up the habit more frequently than young men.

4. Sex, gender and health care

As well as being a major determinant of health, gender also influences the access of individuals to health care. This operates through a number of different routes. In many households there is evidence of gender bias in the allocation of resources. Females of all ages may be assigned a lower status and will have less entitlement to food and health care. This bias will be especially damaging in poor communities where there is little state provision and care has to be bought with cash. Alongside the cultural and material obstacles to care, individuals themselves may feel unable to seek the help they need. In the case of women, this may reflect their socialization into a culture of sacrifice which means that they see themselves as being of little value. In the case of men, access to health care may be limited by the desire to appear 'strong'. In order to appear masculine they cannot admit weakness and this may prevent them from seeking necessary help.

There is also evidence that once they have accessed a service, women and men may receive treatment of differing quality. Many women have spoken of the lack of respect they experience from workers in reproductive health care and this seems to be especially severe among poor women. Research in the developed countries has also indicated that women may be offered care which is less effective than that received by men with the same condition. More research is therefore needed to explore both the gendered obstacles to care and the quality of the services received by women and men in different settings.

Recent studies relating to the HIV/AIDS epidemic have highlighted the continuing importance of these issues. Evidence about poor women in rich countries, such as the United States, as well as those in sub-Saharan Africa suggests that they have a shorter life expectancy than their male

compatriots. This reflects a range of barriers they face in accessing care as well as inequalities in the treatment itself. Studies in a number of countries have shown that women are much less likely than men to be given antiretroviral drugs for instance, even when their need is at least as great.

5. How can researchers be sex- and gender-sensitive?

Sex and gender are major determinants of health in both women and men. They are closely linked with other variables such as age, race and socioeconomic status in shaping biological vulnerability, exposure to health risks, experiences of disease and disability and access to medical care and public health services. Researchers who ignore these differences run the risk of doing bad science. Failure to incorporate sex and gender in research designs can result in failures of both effectiveness and efficiency. Practice based on incomplete or misleading evidence is likely to lead to avoidable mortality, morbidity and disability as well as wasted expenditure of scarce resources. It will also perpetuate existing gender inequalities. Lost opportunities of this kind are obviously unacceptable especially in the context of the existing 10/90 problem.

Strategies for ensuring that research is gender sensitive will vary depending on the type of study being undertaken. However the overall principle should be to make sure that both sex and gender are key variables in all research designs unless there are clear reasons for assuming that they are not relevant to the problem under investigation. The population of subjects needs to include comparable numbers of women and men so that any sex or gender differences can be identified in the analysis. These differences need to be presented in the findings and their implications discussed. In the context of clinical trials this will include an assessment of the significance of any differences for future practice with male and female patients.

As the relevance of both sex and gender to health becomes increasingly clear, new strategies are being devised to ensure that they are mainstreamed into all research activities. At present many of these initiatives are confined to the higher income countries but if the 10/90 problem is to be solved they will need to be included in the reshaping of priorities and practices around the world. The following policies will be central to this process:

- sex/gender sensitivity in research design to be included in funding criteria
- guidelines to be developed to encourage greater gender awareness among health researchers
- multidisciplinary research to be encouraged across the biological/social divide
- a range of methods to be supported including both qualitative and quantitative approaches to data collection
- strategies to be devised for ensuring a more equal gender balance among health care researchers
- policies to be devised for ensuring that women are more actively involved in the determination of research priorities.

Insert A *Developing gender-sensitive evaluation strategies*

Some of the most important work on developing gender-sensitive care has been done by CSOs working on reproductive health issues in low- and middle-income countries. This was reflected at Forum 5 in a workshop discussion of an action research project undertaken by the Malaysia-based CSO ARROW. The study was carried out in six countries in Asia and was designed to explore the gender dimensions of access and quality of care among both governmental and non-governmental service providers. The findings revealed certain commonalities in the ways in which women were constrained by their domestic circumstances and also in the obstacles they faced in accessing care. However the study also demonstrated important differences between countries and communities, highlighting the need for service providers and researchers to be sensitive to the social and cultural specificity of gender issues in different settings.

As part of the study, an in-depth analysis was undertaken of women attending a public hospital in the Philippines. A number of indicators were used to explore the women's access problems and experiences of quality of care itself. These included waiting time, cost of travel and distance, spousal consent issues, regulatory barriers, satisfaction with services and with quality of interpersonal relationships. The study also explored the levels of knowledge and understanding of health care workers about gender issues and their implications. It revealed that many faced serious obstacles including a heavy workload and inadequate facilities which militated against the provision of appropriate and effective care.

Discussion in the workshop centered on how to operationalize the concept of gender sensitivity in the planning, delivery and evaluation of care. A number of methodological issues were discussed including the need for appropriate indicators and outcome measures, the importance of including the voices of all stakeholders in evaluative research and the challenges faced in using the findings from small-scale qualitative studies to identify and disseminate good practice.

Insert B *Sex, gender and tropical infectious diseases*

Until recently, researchers had paid little attention to either sex or gender differences in the field of tropical diseases. However this gap is beginning to be filled. It is now clear that biological factors influence male and female susceptibility to these diseases. Gender roles and relations shape both the degree of exposure to the relevant vectors and also access to the resources needed to protect individuals from the consequences of infection.

Biological differences mean that women and men may experience the same disease in different ways. In the case of malaria for instance, men may be slightly more susceptible to the disease than women. However women's biological immunity is compromised during pregnancy, making them more likely to become infected and worsening the effects. Malaria is an important cause of maternal mortality, spontaneous abortion and stillbirths and contributes to the development of chronic anaemia among pregnant women. These findings highlight the importance of sex differences in the 'natural history' of tropical diseases but much more research is needed to identify their extent and their implications.

Gender differences in living and working conditions also lead to variations in male and female exposure to infection from tropical diseases. Women who are in seclusion are less likely to be exposed to mosquitos and their more extensive clothing may also have protective effects. However their domestic labours may increase exposure to other vectors. A recent study in Nigeria showed that the prevalence of schistosomiasis in girls is highest at the age of 15 when they are maximally involved in water-related domestic work such as agricultural tasks and clothes washing. While the rate drops in males after late adolescence, that of females remains stable, reflecting the fact that men grow out of playing around water while women's domestic duties may require continued exposure.

Diagnosis of tropical diseases and the effectiveness of their treatment may also be affected by gender. Women are often constrained in their use of appropriate health services by lack of transport or inability to pay the fees. These problems may be compounded by the social interpretation of particular diseases. In the case of disfiguring problems, such as leprosy for instance, women may be especially reluctant to expose themselves to health care providers, fearing subsequent stigmatization. Similarly, some cultures have a double standard, equating diseases such as schistosomiasis with virility in men but promiscuity in women. These gender differences in illness behaviour and in societal responses to female and male patients mean that the progress of tropical diseases can sometimes be accelerated in women, especially those with the least resources and lowest levels of support.
