



Enhancing the Financing of Global Health Challenges: A Realist and Incentive-Oriented Strategy

By
PEDRO CONCEIÇÃO and INGE KAUL*



Paper Prepared for the 714th Wilton Park Conference
Presented on 19 June 2003

* Deputy Director and Director, Office of Development Studies, United Nations Development Programme. The views expressed are the authors' and do not necessarily reflect those of the organization with which they are affiliated. Please direct all comments and inquiries to inge.kaul@undp.org.

The Challenge: Meeting the Financing Requirements of Global Health Concerns

Public awareness about the severity of the current global health challenges is widespread. This awareness has found expression in a growing number of policy statements by governments, international organizations, non-governmental organizations and private actors. Three of the eight goals and targets of the Millennium Development Declaration adopted by world leaders at the Special Session of the UN General Assembly in 2000 are concerned with health issues. The fight against HIV/AIDS was the focus of another Special Session of the UN General Assembly in mid-2001. And health challenges also figured prominently at the recent G-8 Summit at Evian¹.

Clearly, the issue is no longer whether something is to be done about these challenges. Nor is the issue how to meet the frequently reiterated global health goals and targets. The strategies to pursue are quite clear; and important initiatives have been launched, among them the establishment of the Global Fund To Fight AIDS, Tuberculosis and Malaria.

The key challenge now is to match policy priorities and financing priorities: to adequately resource what we intend to do.

Our starting position in discussing this challenge is that compassion, and hence the effectiveness of financing mechanisms such as foreign aid, is limited. This is evident from the evolution over the past five decades of official development assistance: the scale of the challenges is not being met by commensurate growth in resources – aid flows have been stagnant, increasing only slightly since Monterrey. And there are no indications that this trend will significantly change in the future. Certainly, various donor countries have promised some additional aid resources. However, they still leave a significant shortfall from the amounts that would be required, if the challenges were to be met in full.²

This assumption would have to be revised if the IFF materializes, since it would not only mean that the amount of resources for aid would virtually double overnight, but a large share of these resources would be allocated to health challenges. However, at present there are no assurances that this would happen. And, if it does, the main conclusion of the paper – which calls for expanding the availability of knowledge for health – would still be valid and relevant, as we will argue.

Hence, improving the financing of global health challenges could be achieved in three ways.

First, health issues could be made to crowd out other development assistance issues, such as those of "enhanced basic education", "proper sanitation and drinking water for all", or "strengthened capacity to regulate and supervise national banking systems in

¹ See: <http://www.g8.fr/evian/english/>.

² The Commission for Macroeconomics and Health, for example, has estimated that donor countries should increase their allocation of grant resources by \$27 billion by 2007.

the interest of financial stability". But aren't all these issues important; and aren't all in a way under-financed? It seems the answer is "yes". Therefore, it also seems that the crowding out strategy is undesirable, and we will not consider it here as a possibility.

A second strategy would be to find resource additionality for health purposes within the non-aid budget categories of countries, industrial and developing. However, additional resource allocations to global health challenges will only occur to the extent that they promise to yield relatively high social returns, notably also for the rich segments of the world's population. Accordingly, section I will explore the possibilities of making such a "high return" argument on behalf of the global health challenges. The discussion will show that this strategy has clear limits. Despite the fact that the world's per capita income in real terms has grown roughly sevenfold during the past five to six decades, both rich and poor countries today feel for a variety of reasons resource-constrained. In the poorer countries, global health concerns compete with other disease issues. And while the global health challenges generate moral and political concern worldwide, including in richer countries, they only weakly affect in a physical, direct sense the wellbeing of the non-poor segments of the world population. This limits the richer population groups' willingness to pay for global health issues.

A third strategy, described in section II of the paper, would thus be to enhance, on a global scale, the availability of public goods with non-rival properties, such as knowledge and technology, a feat, which can often be accomplished, at relatively low, or perhaps even, zero cost.

I Meeting the Global Health Challenges: A Global Public Good Concern of High Investment Priority?

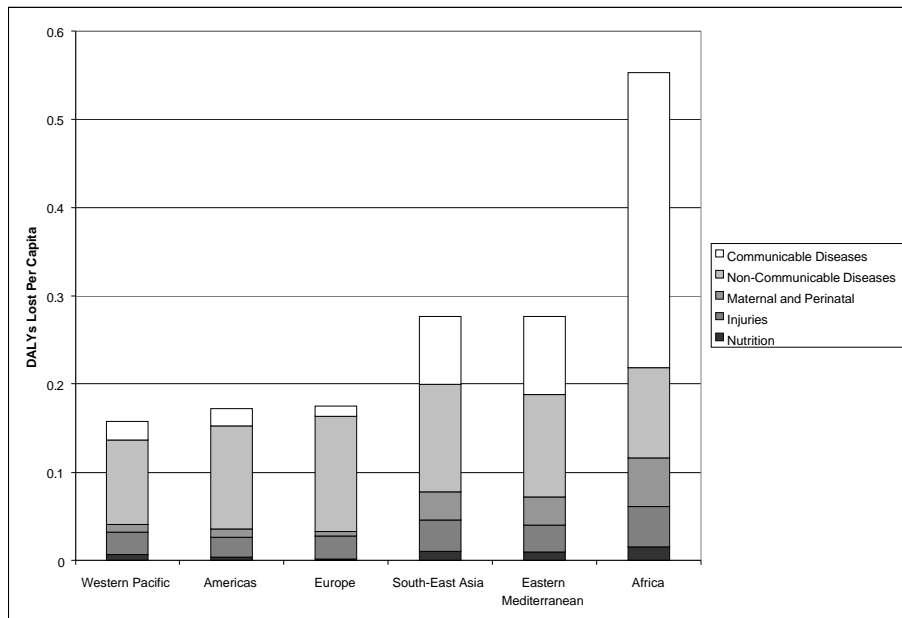
The health goals established by the international community are primarily aimed at achieving certain development outcomes *in* developing countries. Certainly, if achieved, these outcomes would also benefit in various ways people living in other countries. Some of these benefits are direct, such as when people are engaged in cross-border economic activity, including travelling for business or leisure: if the load of infection in the places people travel to is low, they are less likely to become infected and start epidemics. But, in addition, there could also be more indirect benefits: controlling the often excessive disease burden of poor countries could help enhance their economic growth, contribute to expanding markets for trade or open up new investment opportunities. Furthermore, good health conditions could strengthen social cohesion and foster peace and security in various developing countries, thus reducing the risk of future conflicts, refugee waves, and even worse, state collapse (which in turn facilitates international terrorism).

No doubt, because of these and other externalities with potentially global reach the international community is in more than moral or ethical ways concerned about poor health conditions in developing countries. Allowing such conditions to persist and exacerbate can have a direct negative impact on the wellbeing of people worldwide; and it may often affect people in an indiscriminate way.

Hence, not only the communicable diseases prevalent in poorer countries but these countries' overall disease burden--if it is excessive--is of global concern and constitutes what could be described as an under-provided global public good. It implies a lack of "good global public health conditions".

But the fact that a good is public in consumption does not mean that some or all population segments attach high policy and budgetary priority to it. Hence, in order to understand to what extent 1) the developing countries and 2) the industrial countries are prepared to invest in the control of global communicable diseases, we must compare the utility of doing so with the utility that other, alternative investments could generate.

As regards the developing countries, the total disease burden, of course, includes much more than the global communicable diseases figuring so prominently in international policy declarations. As the figure below illustrates, the per-capita burden of non-communicable diseases is approximately the same across all the WHO regions. So the intensity with which non-communicable diseases are addressed in developed countries should also be applied to developing ones. On the other hand, as the figure also shows, the global communicable diseases constitute but a limited concern in the health strategies of industrial countries. The burden of these diseases in Europe and North America, on a per-capita basis, is very low.



Burden of Disease per Capita by Cause and by WHO Region in 2000.

Source: WHO (2001: table 3, pages 148-150). Note: The burden per-capita is measured dividing the total DALYs of each region by the population of the corresponding region.

Regardless of this asymmetry, given the global externalities likely to be generated by excessive disease burdens in poorer countries, it could be argued that it is in the best interest of industrial countries to use their health budgets to provide additional resources for addressing the international cooperation challenges involved in correcting the current

health challenges. Such resources should be additional to the present aid allocations to health.

The justification would be that improving the global public health conditions would also generate benefits, positive utility, for industrial country populations. A specific example on the benefits that accrue to both developed and developing countries is the expected windfall in savings that will result from the eradication of polio. After the disease is eradicated, global annual savings (mostly related with ceasing vaccinations) are estimated to reach \$1.5 billion, and they will accrue mostly to developed countries.

Thus, some countries are already looking for national additional resources that are not aid related to meet international health challenges. For example, the budget of the US Centers for Disease Control and Prevention, based in Atlanta, is being supported out of allocations from various sector departments, including those of the Department of Health and Human Services, but also veteran affairs and Homeland Security.

Other countries could follow the US example, thus channeling some resource additionality to global health concerns. But evidently, the additional resources are likely to be of limited amounts. This means that the global public health conditions have to be improved preferably through low-cost strategies. How could this be achieved?

II Enhancing Global Access to Goods with Strong Non-rival Properties: A Strategy to Facilitate the Attainment of the Global Health Goals?

One way of keeping the costs of development low is to facilitate the dissemination of goods with non-rival properties. Non-rivalry in consumption exists when the consumption of a good by one person does not reduce its availability to additional consumers. For example, many people can make use of a traffic light; and yet, the light's red, green and yellow signals will not become dimmer as the day goes by – the good is not depleted when consumed. Similarly, it is possible to share knowledge, without losing it for oneself. In fact, knowledge sharing can produce significant externalities and allow society as a whole to benefit. To illustrate, if people understand why it is desirable not to spit on the street, communicable diseases can be more easily contained and overall public health conditions improve.

So what are some of the non-rival goods that could be made available globally, for all to enjoy, which are of special relevance to meeting the global health challenges? And how could this be done?

II.1- Disseminating relevant existing medical and pharmaceutical knowledge and technology

Since knowledge is non-rival (once it exists, it can be used by as many as wish to do so without being depleted or detracting others from using it) there is nothing to be gained

from withdrawing it or impeding access to it. However, since generating, collecting and storing knowledge is usually costly, mechanisms have to be in place to fund these efforts, which in most cases rely on limiting access to existing knowledge, so that some compensation is given to the knowledge creators.

This creates problems – indeed, economic inefficiencies – when there are wide differences in the ability to pay of different groups for which knowledge is relevant. If access to knowledge is subject to the payment of a single price, then people whose income does not allow them to afford that price are excluded from accessing the knowledge.

One economically efficient way out of this problem is to charge a different price for access to knowledge depending on different groups' ability to pay – or even providing access for free if the group is extremely poor. One example of the implementation of a differential pricing strategy is the case of the Health Inter Network Access to Research Initiative (HINARI). The network has made agreements with the world's leading publishers of scientific journals to facilitate access to biomedical and related social sciences journals. Public institutions in countries with income per capita below \$1,000 a year have free access, while institutions in countries with income per capita in the range of \$1,000 to \$3,000 pay an annual fee of \$1,000³. Differential pricing, besides promoting wider access to knowledge, also stimulates the generation of new knowledge, because it increases the revenues to knowledge generators from those that would be excluded if there were only a single price.

One other possibility to increase access to knowledge is the use of the negotiating leverage that bulk-purchasing may provide. An atomized group of buyers may not be able to influence the price of access to knowledge, but if the buyers get together and pool their resources, then their leverage increases and prices may go down. Bulk purchasing is used in many different fields, but it is increasingly being considered and implemented to lower the price of medicines – including of prescription medicines in developed countries⁴.

To some extent, such strategies are being proposed and even pursued in the health area. The reason is that they generate, in principle, win-win situations for actors in industrial and developing countries, notably by opening up markets that otherwise would not exist. However, it seems that showing the benefits of these strategies in an abstract way is not enough. It is not even enough to show that these strategies work in some fields. See, for example, the difficulties in implementing a system of differential pricing that would allow wider access to (and greater revenues from) patented medicines. To do more in pursuing these strategies, there is a need to demonstrate more systematically and explicitly their economic desirability to all actors who have a stake in the process. It is important to see the type of incentives they provide, given the expected net benefits to be accrued, to all actors engaged. It would then perhaps be possible to show: why they are preferable to other strategies, i.e. of lower cost (or perhaps even of net-benefit to all), more sustainable, and politically more feasible.

³ See: <http://www.healthinternetwork.org/>

⁴ See: <http://www.ncsl.org/programs/health/drugdisc01.htm>.

II.2- Generating and disseminating new knowledge

Imagine a world without the Green Revolution! Certainly, the Green Revolution had its drawbacks, but it has also achieved a lot in terms of food security and all related development objectives⁵. Should this experience not encourage us to envision a Health Revolution: a dramatic generation of new medical technologies based on a narrowing of the 10/90 gap? Just imagine what new technologies, such as a vaccine for malaria or HIV/AIDS, could mean for the controls of these two diseases. And what new development opportunities could be realized in a world freed of the scars of HIV/AIDS, tuberculosis and malaria!

No doubt, such estimates should bear in mind that knowledge is a global public good that can be consumed by all. And hence, even knowledge that may today seem as being primarily of relevance to developing countries could tomorrow also interest industrial countries. The history of technology is full of examples of how technologies of apparently limited scope and interest, when they first appeared, came to open and dominate entirely new technological areas and economic sectors. Think, for example, of the laser, which patent layers at ATT refused to patent for lack of commercial interest, and now enables us to read CDs and DVDs, to print high quality documents in laser printers, to check barcodes at supermarkets, and to perform delicate eye operations safely. Some of the crop varieties developed for poor tropical regions during the Green Revolution are now essential ingredients in the creation of new varieties by firms in developed countries – for example, inbred maize lines created by a CGIAR center in Mexico are widely used by the private sector in developing hybrids.

The same will happen with the technologies and scientific knowledge aiming at solving today's problems of developing countries: it will enter the global knowledge stock on which future research and development in all parts of the world can build. Therefore, it might also be appropriate not to burden, or only partially burden, current foreign aid budgets with the costs of such investments in the global knowledge stock. The budgets of national institutes of health, those of ministries of science and technology or funding from philanthropic foundations would be more appropriate funding sources.

Then, if we would, in addition, implement proposals such as that of the UK for the creation of an international financing facility (IFF) to front-load aid, or more generally, the financing for international cooperation purposes, we might even be able to realize the vision of a Global Health Revolution.

But, as with the dissemination of existing technologies, the case for the generation of new technologies has to be made in a persuasive, and politically effective way. Can we develop quantitative estimates of what the likely net-benefit to the world and to different country groups would be, let's say, by 2030, if we were actually to generate radical new

⁵ See, for a recent comprehensive assessment: R.E. Evenson and D. Gollin, 2003, "Assessing the Impact of the Green Revolution, 1960-2000", *Science*, 300: 758-762.

technologies that would enable us to more effectively and efficiently control these diseases by 2015? And would we be able to show that the benefits are not only high at an aggregate level – but also that key stakeholders stand to gain? Taking these steps would be key to moving from wishful thinking into hardnosed economic-based rationales.

II.3- Creating a global health knowledge platform

In order to become actionable, objectives need an institutional framework. In fact, a number of new institutions have sprung up in recent times in the health domain geared to facilitating either the generation of new or the dissemination of existing knowledge. For example, GAVI and the Global Fund are essentially geared towards the deployment of existing technologies. At the same time, MMV, IAVI and the Global Alliance for TB Drug Development support efforts to generate new technologies.

Yet judging from the experience of the meteorological domain, more could be done to engage both developed and developing countries in access to, and contribution towards the generation of, knowledge. For example, through EUMETSAT – a satellite system – a group of European countries collects meteorological information for their own purposes⁶. But weather forecasting and the interpretation of meteorological information in Europe requires data from other places as well. Therefore, EUMETSAT shares the information that it has collected with other developed countries on a reciprocal basis. But EUMETSAT also offers free access also to developing countries, for two reasons: 1) to foster the use of the information available on EUMETSAT; and 2) to encourage developing countries to contribute additional data and make the world meteorological picture more complete.

Some similar initiatives exist in the health domain. For example, ProMed is an effort to collect information globally on emerging diseases, drawing from information collected at the local level, in developed and developing countries.⁷ .. And the Public Library of Science, following-on a proposal by Harold Varmus, intends to become an inclusive platform to publish and access scientific and medical knowledge, drawing on the advantages of using an electronic platform for publishing information⁸.

However, the time may be ripe to consolidate some of the present initiatives, draw on existing technological capabilities, and to create a satellite system, perhaps called MDSAT, dedicated to global health issues and resourced and managed by the global community. This system could facilitate not only the collection of information (for example, disease surveillance) but would also facilitate the diffusion of knowledge and deployment of technologies, including through the usage of telemedicine⁹. But again,

⁶ See: <http://www.eumetsat.de/>.

⁷ See: <http://www.fas.org/promed/>.

⁸ See: www.plos.org/.

⁹ In fact, a project that has some similarities to this proposal is being implemented; see: <http://www.gdin.org/wg/MEDSATshort.pdf>.

before venturing into such an initiative, its economic desirability as well as political and technical feasibility should be carefully assessed.

Conclusion

Clearly, there exists no silver bullet when it comes to meeting the cost implications of the global health challenges. If there is a bit of magic on which one could draw, then this would be the magic of numbers: demonstrating that controlling global communicable diseases is a relatively good investment.

This requires complementing the moral and ethical arguments of the current discussion about global health, just as CMH proposed, by hard-nosed economic, in fact macro-economic, arguments.

But we also need to go beyond the arguments set forth in the CMH report. While they are technically correct, they often do not take full account of linked public-choice and political economy aspects. Who really would perceive it as being to their net-benefit to address the global health challenges? And who would de facto gain? We have to answer these questions in order to make progress.

The war against international terrorism – and even the outbreak of SARS – has once again demonstrated that "where there is a will, there is a way". We need to generate the will to pay for global health issues by, as suggested here, removing some of the information asymmetries that currently cloud decision-making in the health area and treating health as an investment issue. And we have to be prepared, as furthermore recommended, to find low-cost strategies. Non-rival goods, such as knowledge and technology, are prime candidates in this respect

Even if there were substantial increases in aid for health, if the IFF materializes, investing in non-rival goods, especially in knowledge, would still be an excellent investment. We would then have the money so badly needed to strengthen national public health systems and to build national capacity to absorb – and also contribute to – the global stock of health knowledge and technology. We could achieve more faster.