Financing of health systems to achieve the health Millennium Development Goals in low-income countries

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Concern that underfunded and weak health systems are impeding the achievement of the health Millennium Development Goals (MDGs) in low-income countries led to the creation of a High Level Taskforce on Innovative International Financing for Health Systems in September, 2008. This report summarises the key challenges faced by the Taskforce and its Working Groups. Working Group 1 examined the constraints to scaling up and costs. Challenges included: difficulty in generalisation because of scarce and context-specific health-systems knowledge; no consensus for optimum service-delivery approaches, leading to wide cost differences; no consensus for health benefits; difficulty in quantification of likely efficiency gains; and challenges in quantification of the financing gap owing to uncertainties about financial commitments for health. Working Group 2 reviewed the different innovative mechanisms for raising and channelling funds. Challenges included: variable definitions of innovative finance; small evidence base for many innovative finance mechanisms; insufficient experience in harmonisation of global health initiatives; and inadequate experience in use of international investments to improve maternal, newborn, and child health. The various mechanisms reviewed and finally recommended all had different characteristics, some focusing on specific problems and some on raising resources generally. Contentious issues included the potential role of the private sector, the rights-based approach to health, and the move to results-based aid. The challenges and disagreements that arose during the work of the Taskforce draw attention to the many issues facing decision makers in low-income countries. International donors and recipient governments should work together to improve the evidence base for strengthening health systems, increase long-term commitments, and improve accountability through transparent and inclusive national approaches.

Introduction

During the past few years, the realisation that weak health systems are a fundamental constraint to making progress towards the health Millennium Development Goals (MDGs) in low-income countries has grown. The Global Fund for HIV, Tuberculosis and Malaria, and the GAVI Alliance (formerly the Global Alliance for Vaccines and Immunisation), have both provided funding opportunities for health systems. However, funding still falls well short of the amounts needed to achieve MDG targets. The Commission on Macroeconomics and Health’s estimate of the cost of a package of 49 essential health interventions in low-income countries was about US$38 per person per year,1 but total (public and private) spending on all health activities in 2006 was only about $25 per person per year. Development assistance for health has doubled since the adoption of the Millennium Development Goals in low-income countries has grown. The Global Fund for HIV, Tuberculosis and Malaria, and the GAVI Alliance (formerly the Global Alliance for Vaccines and Immunisation), have both provided funding opportunities for health systems. However, funding still falls well short of the amounts needed to achieve MDG targets. The Commission on Macroeconomics and Health’s estimate of the cost of a package of 49 essential health interventions in low-income countries was about US$38 per person per year,1 but total (public and private) spending on all health activities in 2006 was only about $25 per person per year. Development assistance for health has doubled since the adoption of the Millennium Declaration, but the largest share has flowed to lend support to specific disease-control efforts.3,4 Although this assistance has greatly helped to increase the take-up of health technologies, more funding is needed for MDG 6 (combat HIV/AIDS, malaria, and other diseases), and insufficient resources have been devoted to achievement of MDGs 4 and 5 (reduce child mortality and improve maternal health)3 and the health-system platform necessary to support service delivery, which has been especially neglected, as reflected in a crisis in human resources.3

In September, 2008, the creation of a High Level Taskforce on Innovative International Financing for Health Systems (the Taskforce) was announced, with objectives to contribute to filling of national financing gaps to reach the health MDGs in 49 low-income countries (panel 1) through mobilisation of additional resources for health systems; increasing the financial efficiency of health financing; and improvement of the effective use of funds. Two technical working groups were established to present analyses and recommendations to the Taskforce: Working Group 1 to address constraints to scaling up and costs, and Working Group 2 to address options for raising and channelling funds. Both reports are now publicly available,5,6 along with the Taskforce report.8 Innovative development financing, as defined by the Taskforce, involves non-traditional applications of official development assistance (ODA), joint public–private mechanisms, and flows that either support fund-raising by tapping new resources or deliver financial solutions to development problems on the ground.

This paper has four aims: to examine the analyses of the two Working Groups, identifying key challenges that they faced; to discuss how innovative forms of finance might help to address the present difficulties of health systems; to identify areas of disagreement and controversy that need further evidence and discussion; and to identify priorities for future action and analysis.

Challenges faced by the Working Groups

Working Group 1

The overall remit of Working Group 1 was to address the health-system strengthening that is needed in low-income countries to achieve the health MDGs, with a specific emphasis on redressing gaps in services related to the MDGs that are considered to be neglected—namely,
MDGs 4 and 5. Information that the Task Force requested from the Working Group included present health-system constraints, the key elements of an agenda for health-system strengthening, the required package of guaranteed benefits, additional financial resources needed, the likely health effects, and the financing gap needing to be filled by donors and recipient governments. Panel 2 summarises the method used by Working Group 1 to undertake its work and to prepare its report, and technical papers explaining the methods of costing and impact assessment are also available.9,10

Five key challenges were faced. The first challenge was related to the evidence for health-systems strengthening. Frameworks for analysis of health systems, and definition of the key health-system building blocks, are well established, but evidence for what works in different settings is scarce.11 Knowledge of health systems tends to be context-specific; generalisations cannot easily be made unless there is evidence from a range of country settings about how a particular approach works. The review relied on a database of systematic reviews, but this approach itself was limited by a scarcity of empirical research.

The second challenge was the package of benefits and associated costs. Specific interventions needed to achieve the MDGs are well known; what is not well accepted are the appropriate delivery approaches. There was pre-existing work on interventions and costs at both WHO (known as global price tags9) and the World Bank and UNICEF (termed marginal budgeting for bottlenecks [MBB]10), which was further developed to meet the Working Group’s needs. Originally, the two sets of work had been intended to provide a minimum and maximum estimate of costs. However, these were two very different approaches to scaling up. The WHO costs responded to the technical requirements for scaling up established by the various technical programmes, which focused on building up the service infrastructure of health centres and district hospitals. By contrast, MBB assumed a much more heavily community-based approach. For example, in the WHO approach, 27% of additional health workers would be community health workers and 49% nurses and midwives, whereas 64% would be community health workers and 14% nurses and midwives in the MBB approach.

A further issue was that the economic relations which should underpin the calculations are poorly understood. Hence the cost calculations mainly followed an accounting approach, with use of unit costs and service quantities to obtain total costs. Such an approach inevitably ignores issues of economies of scale and scope, and is unable to fully address issues of efficiency of both current and new spending. The work did seek to cost adequately the health-system support functions that are believed to be needed for the service delivery level to function well. This is the first time that this analysis has been attempted; all previous costings have been disease or programme specific. However, the precise activities needed for health systems to function efficiently are difficult to specify, and almost nothing is known of the relevant production functions. Thus there were major uncertainties in the accuracy of the costs. Furthermore, the costs were an approximate estimate globally—the data are not strong enough to inform decision making for individual countries, and countries need to undertake their own costings on the basis of country realities.

The magnitude of the costs also differed, with the MBB estimates being much lower than the WHO costs (webappendix p 1). Additionally, the phasing of capital and recurrent costs between 2009 and 2015 differed between the two approaches (figure 1). The WHO

Panel 1: The 49 low-income countries

Sub-Saharan Africa

South Asia
Afghanistan, Bangladesh, Nepal, Pakistan

East Asia and Pacific
Burma, Cambodia, Laos, North Korea, Papua New Guinea, Solomon Islands, Vietnam

Europe and central Asia
Kyrgyz Republic, Tajikistan, Uzbekistan

Middle East and north Africa
Yemen

Latin America and the Caribbean
Haiti
(Continued from previous page)

Estimates of the required financial resources drew on, and further developed, two continuing costing activities. WHO and partners have been estimating the costs of scaling up interventions to meet global targets in several areas that are relevant to the health Millennium Development Goals, and added to this evaluation estimates of the costs of generic health-systems functions. The World Bank, UNICEF, and partners have developed the marginal budgeting for bottlenecks (MBB) method, as a means of supporting countries to cost plans for scaling up services and estimate funding gaps; the MBB team estimated three scaling up scenarios, of which only one (medium) was included in the report. Both teams adapted previous work to relate only to the 49 countries, and to ensure that health-systems functions were adequately costed. Costs were calculated for 2009–15, covering both recurrent and capital costs. Capital costs were included when incurred rather than spread over their lifetime. Costs are in 2005 constant US dollars and are additional to present (estimated 2008) spending. Details of the methods are available in two technical reports.

Both teams draw on previous work estimating the health benefits of increased spending to calculate the health gains that would be realised in 2015 relative to the situation in 2015 if the present amounts of intervention coverage had persisted. Cost and effect estimates were peer reviewed at a workshop.

Between now and 2015 there will be some increase in the availability of funds. The Working Group selected two scenarios to estimate additional financing. One reflected as accurately as possible the public commitments of donors with respect to development assistance for health, and of sub-Saharan African countries with respect to domestic expenditure on health. Not all commitments could be reflected because in a few cases they were contradictory, and countries outside sub-Saharan Africa have not set a target for health expenditure as a share of government expenditure (in the absence of a target this expenditure was assumed to be 12%). The second was a no change scenario, in which present relations of spending to gross domestic product were maintained for both donor and recipient countries. Domestically generated private expenditures, mainly out-of-pocket expenditure, make up a substantial proportion of total health expenditure, but little is known about the services that they purchase. To assume that such expenditure makes no contribution to services that are relevant to the health Millennium Development Goals would be unrealistic, so both scenarios assume that 50% of increases in private spending contribute to meeting the estimated costs. The financing gap is the difference between the estimated additional costs and the likely additional financing.

Figure 1. Additional yearly spend to reach health Millennium Development Goals in 49 low-income countries
(A) WHO costing. (B) Marginal budgeting for bottlenecks (MBB) costing.

After 2015. Although these differences add to the concern that the costs are highly uncertain, some argue that even a little knowledge of costs is better than no knowledge.

The third challenge was estimates of health benefits. As is now customary, the politicians on the Taskforce wanted to know the health benefits that would result from additional spending. Although knowledge about how to undertake such modelling has greatly advanced in the 8 years since the Commission on Macroeconomics and Health, for which such estimates were rudimentary, this estimation presented an enormous challenge, which was accentuated by the two different approaches to scaling up. The evidence base for alternative delivery approaches (rather than technical interventions) is scarce, and whether an intervention delivered at health centre level, for example, can be equally effectively delivered in a community-based approach is often unclear. This uncertainty was a constant difficulty in establishment of the likely health benefits of the two approaches, and the single figure estimates might be considered to give a spurious air of accuracy (webappendix p 2).

The fourth challenge is related to efficiency gains. A case can be made that present fragmented aid patterns and associated inefficiencies, and conversion of part of out-of-pocket payments into more formal domestic financing, if addressed, would greatly increase the efficiency of health systems, hence reducing the amount of additional funding that is needed to achieve the MDGs.
A converse argument would be that weak capacity in low-income countries increases the costs of making improvements. Neither issue could be adequately addressed owing to insufficient evidence.

The fifth challenge concerned additional financing. Projection of the availability of financing was based mainly on exogenous assumptions or stated commitments (webappendix p 3 shows the assumptions and webappendix p 4 the projections). Although the financial crisis was reflected in the calculations, through use of the most up-to-date growth projections from the International Monetary Fund, the future ramifications of the crisis for both donor and domestic financing were obviously very difficult to predict. Most striking in the financing gap results (figure 2) was less the increase in external funding that would result if donors kept to their stated commitments, and more the increase in domestic financing that follows from the assumption that sub-Saharan African countries would increase government funding to health to 15% of the total government expenditure, and other countries to 12%. The focus of the Taskforce on external funding has tended to obscure the important message that domestic mobilisation of financing is crucial. A further difficult issue was how to deal with private expenditure. To ignore it would be to assume that such expenditure makes no contribution to the health MDGs, and the assumption was made that 50% of projected additional private expenditure would help to meet the financing need. However, increased public spending and improved quality public services should lead to reduced private spending, as it has done in Thailand112 and in a district in Tanzania,29 and hence the projected total increase might be less if part were funded by a shift from baseline out-of-pocket spending to more formal funding sources (tax or insurance).

**Figure 2:** Total financing by source for 2008 and 2015 (if commitments met and no change), compared with 2015 need (WHO costs)

Working Group 2

Working Group 2 faced four challenges. The first was lack of a common definition for innovative financing. Previous definitions had focused on mechanisms for raising funds in addition to traditional ODA.30 However, the Taskforce was also requested to review innovative ways to improve use of funds, both ODA and other. The agreed definition therefore included new ways of using ODA—eg, by frontloading (the International Finance Facility for Immunisation [IFFIm]) or more explicit linking to results (eg, buy downs). Frontloading with IFFIm involves use of long-term ODA commitments to underpin leveraging resources from bonds issued in international capital markets, for the purpose of immediate development assistance. Buy downs involve turning a loan for specific health MDG results into a grant when verified results have been achieved. Some Taskforce members stated clearly that donor governments wanted to find new ways of raising funds for ODA—eg, by increased amounts of public participation, which is not only central to the work of catalysing private giving, but also for selling IFFIm bonds to the public. All members agreed that the focus on innovative financing should not deviate attention away from government commitments to improve health spending, both domestically and by international donors.

The second challenge was the evidence base for innovative mechanisms. In view of the very short timetable for undertaking the technical work for the Taskforce, a heavy reliance was made on existing reviews and assessments. A team, led by the World Bank, did a systematic comparison of many different mechanisms, and collated existing published work on them. However, many of the mechanisms were not strictly comparable, covering mechanisms that both raised and channelled funds to countries, some already existing and some new. Although more than 100 mechanisms were reviewed, many could not be included because of insufficient material to include in the comparison, hence the focus on 24 mechanisms in the more detailed review available in the Working Group 2 report. The review provides a logical approach to understanding the different mechanisms, but could not replace a robust economic evaluation of each approach, which would need advanced planning with standardised measures. The Taskforce was not in a position to commission such approaches because of time constraints. However, in view of the growing interest in innovative finance, more comparable assessments will be of use in the future.

The third challenge related to the evidence base for aid effectiveness and a harmonised approach to strengthening health systems. Both Working Groups and the final Taskforce report recommended that international agreements on aid effectiveness should be adhered to, as is the case in the International Health Partnership and related initiatives (IHP+) and countries with sector-wide approaches to health. This tenet was of particular importance for the recommendations on investment in national health strategies, and for development of a harmonised approach to funding the strengthening health systems by the Global Fund, the GAVI Alliance, and the World Bank. However, these joint efforts are still

For more about the International Health Partnership see http://www.internationalhealthpartnership.net/
being piloted and we will not know for some time whether they will result in the predictable and more efficient use of international funds. Meanwhile, the broader debate about international aid persists,27 and concerns continue to be raised about the effect that international funds might have on domestic financing and the need for increased transparency.28 These issues will take some time to resolve and were beyond the scope of the Taskforce work. Joint effort between major donors and governments to improve in-country data for use of funds and monitoring results, including greater transparency, as recommended by the Taskforce, will hopefully make these matters clear in the future.

The last challenge was concerned with dealing with the poor progress towards MDGs 4 and 5. The focus on the Taskforce was on all the health MDGs, but from the start of its work its recommendations were expected to help to address the slow progress with the MDGs dealing with maternal and child health, particularly maternal health, which had not advanced in many low-income countries.29 There have been huge successes related to dealing with HIV, tuberculosis, and malaria and improving immunisation coverage, partly because of global funding initiatives to deal with these problems. However, there was no support, either while preparing Taskforce initiatives to deal with these problems. Instead, there was more support to streamline present funding and to improve respect for national decision making on the health priorities that need external support. Maternal and newborn health services should benefit from this approach, although it cannot yet be assured. Much more work is needed by the international agencies dealing with maternal health (WHO, UNICEF, the Joint United Nations Programme on HIV/AIDS [UNAIDS], the United Nations Population fund [UNFPA], and the World Bank) to assist countries in development of plans and strategies that rapidly deliver the interventions and services known to be cost effective in resource-poor settings.30,31 A common set of indicators to monitor progress, linked to domestic and international investments in the national health strategies and plans, could help to ensure that the extra resources being mobilised to strengthen health systems could effectively link with domestic efforts to scale up services for maternal, newborn, and child health.

Use of innovative forms of finance to address present challenges of health systems

The various mechanisms reviewed and finally recommended all had different characteristics. Some were particularly suited to dealing with specific challenges in low-income countries, whereas others focused on raising resources more generally.

So far, the revenue from airline tax has mainly been used to pool funds and procure (through UNITAID) drugs to reduce the market price in low-income countries. Use of revenue from across countries in this way to produce a global public good could be extended to other areas. However, this approach addresses drug availability only, needing complementary funding to support the service delivery infrastructure.

If expanded, tobacco taxes could be linked to specific health activities, as done for health promotion in Thailand, but are mainly used like all taxes and pooled within government. They could therefore be a source of funding for general health-systems strengthening if a strong case is made for allocating them for health-sector use.

IFFIm expansion provides the possibility of frontloading long-term pledges for large, one-off capital expenditures that have a longlasting benefit, such as expansion of health facility infrastructure and strengthening of training institutions. This rationale could also extend to investments in systems that make future funding more efficient—such as for domestic financing, management, and information and assessment.

Raising of private funds usually needs a major marketing exercise that makes clear to private individuals what results are required, and what solutions are available to realise them. The Taskforce recommended support to the work of the Millennium Foundation, which is focused on drugs and commodities for HIV, tuberculosis, and malaria through UNITAID, but could easily expand to decreasing the price of other products such as those needed for maternal and child health services, as long as this reduction was easy to communicate to private individuals who provide a donation. Other initiatives can learn from this experience, such as the new Italian De-Tax for which businesses and government forgo some profit and VAT, respectively, for a common health cause. As with any financing mechanisms that are linked to products, complementary funding will be needed for the delivery infrastructure.

As made clear by Working Group 1, good evidence for where to invest in public–private partnerships is scarce but experience is growing. Crucially important is for governments to have the capacity to regulate and handle contracts in an efficient way. Globally, the first Advanced Market Commitment has only just been launched, but there was a major interest in examining other areas of public health for which global goods, such as new drugs or vaccines, are needed.

Swapping existing debt for grants (as with the Global Fund’s Debt2Health initiative) and converting loans to grants when performance targets are met (as with the World Bank’s so-called buy downs) are both initiatives that could be used in many areas. Experience for Debt2Health is so far limited to HIV, tuberculosis, and malaria but could expand, although the projected amount of funds to be raised in this way is not large. Experience with buy downs is little but will now grow with the expansion of World Bank and other work on results-based financing. These initiatives can provide funding that is appropriate for health-system strengthening.
Areas of disagreement and controversy

The potential role of the private sector was perhaps the area in which views diverged most within the Taskforce and between Working Groups. The private sector might have a role in raising and investing capital, and providing health insurance, health services, and resources that are needed for health care (e.g., drugs, trained health workers). It might achieve this role on its own behalf, or on contract to the state (e.g., to build facilities, provide services, distribute drugs and medical supplies). Working

Group 1 took what might be regarded as a somewhat pro-public position. It was sceptical about the desirability and feasibility of private insurance. With respect to health-care provision, it argued that other than some evidence about how to improve the quality of prescribing among drug retailers, and with the exception of evidence for contracting service delivery to non-governmental organisations, there was little good evidence for whether investment in private-sector delivery would reap health-care benefits, specifically for the poorest people. It suggested that possible options that merited exploration and testing included private-sector involvement in supply-chain management for the public sector, private training schools, low-cost clinic chains for people who are employed on low incomes in urban areas, and low-cost pharmacy chains and diagnostic laboratories. In view of the little evidence, pilot schemes and rigorous assessment were argued to be the best way forward.

Working Group 2, by contrast, were attracted by the potential of private generation and use of funding, owning
to the known constraints and problems of raising and spending public money. Their recommendations therefore focused on how to engage more effectively with non-state entities, rather than on areas in which such engagement should take place (as covered in Working Group 1).

Working Group 1 made very clear that one function of a health system in all countries is to define a set of health benefits for which there should be universal coverage. These benefits included essential services or public health actions, and should be defined for each country (although the group did suggest a minimum set of benefits that a low-income country might be expected to provide). This tenet accords with other calls for universal coverage of health services in all countries. However, the Taskforce was reluctant to use this specific language in the final document. The main reason given was that the MDGs specify areas needing attention by national and international contributors, whereas a move to universal coverage does not have agreed international standards to monitor progress systematically and hold governments and their partners to account.

Both Working Groups and the final Taskforce report acknowledged the importance of linking additional international financing to results. Although Working Group 1 stated that evidence of cost-effective approaches is still sparse, experience is growing subnationally and within communities in, for example, purchasing services in both public and private sectors and providing conditional cash transfers. However, there is less evidence at present for the use of results-based financing techniques by donors nationally. This is an area of growing interest, and the Taskforce recommended expansion of results-based buy downs provided by the World Bank. However, this area needs careful management to avoid creating perverse incentives, especially when data quality is poor or unreliable.

Priorities for future action and analysis
The process of the Working Groups’ deliberations and their interactions with the Taskforce identified some areas that are crucial for future action (panel 3). Effort in these areas would greatly improve the quality of similar efforts in the future, and lead to improved advice to funders and countries. In the build up to the global MDG summit in 2010, the momentum created by the Taskforce and related efforts must continue to grow. The proposed Health and Development Forum in 2010 will provide an opportunity for countries and development partners, including civil society, to monitor progress of existing commitments, including those coming from Taskforce recommendations.

Contributors
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Conflicts of interest
We declare that we have no conflicts of interest.

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