Bigger And Better? Scaling Up And Innovation In Health Aid

Despite progress, much can still be done to improve the efficiency of aid to achieve better health outcomes.

by Christopher Lane and Amanda Glassman

ABSTRACT: As the volume of health aid to developing countries increases and allocations shift toward specific disease burdens, issues of allocation efficiency become more important to the achievement of better health outcomes. This paper examines (1) whether health aid—traditional and innovative—corresponds to recipients’ needs and priorities and (2) how the terms of aid affect its efficiency. We find that there is considerable scope for improvement through consolidation, improvement of terms, and increased attention to the efficient allocation of the marginal dollar of aid. [Health Affairs 26, no. 4 (2007): 935–948; 10.1377/hlthaff.26.4.935]

Aid disbursements for health nearly doubled between 2002 and 2005 (Exhibit 1), reflecting new players such as the Global Fund for AIDS, Tuberculosis, and Malaria (Global Fund) but also major increases in commitments by bilateral donors (Canada, the European Commission [EC], and the United States from 2003; Japan and France from 2004; and Sweden and the United Kingdom from 2005).1

Aid priorities have changed as well.2 In broad terms, spending has shifted toward prevention and treatment of communicable diseases, including HIV/AIDS, and away from other interventions. The increase in disbursements for communicable diseases and sexually transmitted diseases (STDs), including HIV/AIDS, between 2002 and 2005 accounted for more than half of the increase in total health aid over the period. Spending on health research also rose during 2002–2005, albeit from a low base. Low-income countries have benefited the most from these increased flows.

Nonetheless, financing for global health priorities remains much lower than estimated needs. These needs represent an additional $30–$70 billion a year in spending—approximately 9–20 percent of current health spending in developing countries and about three to eight times the current level of aid for health.3 Although this amount is a small fraction of global gross domestic product (GDP)
(0.09–0.21 percent), there is concern that the upward trend in assistance is not sustainable because of the fiscal positions of some of the major donors. Thus, improving the efficiency and effectiveness of health aid remains a key issue. In response, innovative financing mechanisms are being developed to augment health aid and improve its efficiency. On the fund-raising side, innovative financing aims to generate new sources of health aid, with earmarked airline taxes being a prominent proposal; boost private-sector flows such as the corporate-sponsored Product Red initiative, aimed at raising funds to eliminate HIV/AIDS in Africa; and attract nongovernmental organization (NGO) and philanthropic flows. Innovative financing initiatives have sought to front-load existing aid commitments, notably through the issuance of guaranteed bonds for aid under the International Finance Facility for Immunization (IFFIm) and proposed mechanisms to smooth fluctuations in aid (such as a buffer facility for aid).

On the delivery side, innovative financing has focused on creating new institutions and incentives to use aid more effectively. Aid is increasingly linked to quantitative performance indicators. Aid flows are committed for longer periods of time—for example, to stimulate faster development of new technologies and products for better health outcomes through the Advance Market Commitment (AMC) initiative of the GAVI Alliance (formerly known as the Global Alliance for Vaccines and Immunization). New institutions have been created (the Global Fund and GAVI) where existing institutions were viewed as insufficient.

Discussions around innovative financing and the quality of health aid began at around the same time that donor financing increased greatly and shifted to recur-
rent cost support. In early 2004, inspired by a broader call for greater aid effectiveness known as the Paris Declaration, the World Health Organization (WHO) and World Bank convened the first High-Level Forum (HLF) on the Health Millennium Development Goals (MDGs), described as a space for “relatively informal discussions” on obstacles to the effective use of scaled-up aid. Both the Paris Declaration and the HLF were predicated on a set of hypotheses on the problems of aid and its terms, related to insufficient funding, lack of alignment with priorities, short-term financing horizons, unpredictable and volatile commitments and disbursements, and fragmented aid delivery. Such issues have long been identified as problematic; however, the scale of and shift in health aid have made their resolution more urgent.

Aid and its terms result from a balancing act between donors’ accountability to their constituencies and the interests of developing-country recipients in receiving long-term, predictable financing in support of their own priorities. Although health aid plays a marginal role in middle-income countries, it remains prominent in low-income countries. In nearly forty such countries, aid accounts for more than a quarter of government health spending, and in nearly twenty countries, it accounts for more than half.

This paper explores the evidence base on aid efficiency in the health sector, the evolution of common problems over time, and the still very recent experience with selected innovative financing mechanisms. It sets out an agenda of actions to mitigate identified problems.

**Study Framework**

To maximize health gains globally, choices in allocating aid between countries are critical. Targeting aid to low-income countries with small populations rather than wealthier countries or areas within such countries where most poor, at-risk people live can result in lower global health gains. An allocation process that restricts recipients to low-income countries omits the important variables of scale (population), governance, and importance of aid within total health spending, which also affect potential health gains and have been shown to be important for aid effectiveness.

The terms of aid financing—particularly duration, predictability, and whether or not it is tied to specific uses—also affect the choice of what types of services and products to finance, and thus allocation efficiency within recipient countries. Whereas short-duration, windfall donations can be used effectively for infrastructure and equipment purchases, they are inappropriate for financing routine recurrent costs such as human resources and medicines. Other terms, such as tying aid

“The terms of aid financing affect the choice of what types of services and products to finance, and thus allocation efficiency.”
to specific technologies or purchasing sources, will also affect the efficiency of allocation. Finally, choices around institutional modalities for the delivery of aid financing—for example, the number of financing intermediaries and their administrative requirements—also affect technical efficiency.

Assuming that the central objective of aid is to improve health, one way to look at whether health aid is effective is to assess whether it is allocated by donors on the basis of recipient countries’ health needs. A large literature examines the responsiveness of aid allocations to their stated objectives; studies find, with few exceptions, that political and strategic donor interests usually trump growth and poverty reduction. Two recent studies have identified the limited correlation between levels of health aid and the distribution of the burden of disease.9

We investigated how per capita health aid disbursements reported to the OECD at the country level reflect the disease burden expressed in disability-adjusted life-years (DALYs) lost per 100,000 population from the WHO Global Burden of Disease database. We controlled for the following factors that might also affect health aid. (1) Additionality of aid: We used per capita gross national income (GNI in U.S. dollars) as a proxy for potential own-country resources that could be used for health that would reduce the additionality of aid flows (in other words, aid flows that increase health financing rather than substitute for other finance). GNI can also serve as an indicator of need for health system development. (2) Scale effect: In common with the literature, we used country population to control for the bias to deliver aid disproportionately to small countries, in part reflecting diseconomies of scale. (3) Capacity to use aid effectively: We tested several indices of governance and accountability and selected the Economic Freedom Index as an indicator of capacity because it has relatively broad country coverage compared with other indices.10 (4) Country commitment to improving health outcomes: In line with the aid-effectiveness literature, we included a variable to proxy countries’ commitment to the health sector, defined as health spending as a percentage of general government spending.

Study Results

Exhibit 2 shows results from regressing 2005 health aid per capita disbursed for eighty-one developing countries against GNI in U.S. dollars, population, Economic Freedom Index, the share of health in government spending, and disease burden per capita. All variables are expressed in natural logarithms; independent variables are lagged one year.11 The signs of all variable coefficients are all as expected; they are significantly different from zero, with 90 percent confidence or higher, and explain about 60 percent of the variation of health aid per capita across countries.

Alignment with recipients’ disease burden. The results show that health aid is positively related to disease burden; that is, a 1 percent increase in disease burden is associated with a 1 percent increase in health aid per capita. Aid also responds
positively to improvements in county capacity, commitment to health, and improvements in economic freedom. Health aid diminishes rapidly as per capita income rises (0.6 percent decline for a 1 percent increase in income). This result can be interpreted as either that aid responds significantly to indicators of health system needs (associated with low per capita income), or that aid is reduced as the scope for additionality falls at higher incomes. The finding of most concern is that country population is an important factor in aid per capita (a 1 percent population increase is associated with 0.4 percent less health aid per person). This suggests that aid delivery in small countries bears a high cost, or that health aid per capita is much lower in large countries after other factors are controlled for, or both. It is likely that both factors are at play; consequently, improvements in health aid efficiency could be obtained by reallocating aid from small to large states.

Alignment with specific types of disease burdens. Are certain types of disease burden more closely correlated with aid flows than others are? We ran the regression shown in Exhibit 2 again using ten major categories of disease burden instead of aggregate disease burden. The results show that only some types of disease burden determine aid allocations, which confirms the recent literature that grant aid per DALY varies enormously across communicable diseases. Only HIV/AIDS and tuberculosis (TB) disease burdens are positively and significantly associated with aid per capita after allowing for the effects of commitment, governance, income, and population.

Alignment with recipients’ priorities. Alignment of aid investments with re-
recipient countries’ government priorities and spending is a determinant of allocation efficiency within countries. In practice, alignment is measured by the extent to which aid is tied to particular goods or services and the use of program (budget support) approaches.

Goods and services. Tying aid to goods and services for a given country or set of countries is recognized to reduce the effectiveness of aid; the United Nations Development Program (UNDP) reports, “Price comparisons have found that tied aid reduces the value of assistance by 11–30 percent.”\textsuperscript{15} Although the tying of health aid has greatly declined over the past decade, geographically tied aid remained one-fifth of total health aid in 2005 reported to the OECD, and data exclude U.S. assistance, which is predominantly tied. This implies an efficiency loss in the range of $110–$300 million. The Global Fund and GAVI follow best practices on untieing aid procurement geographically.

Technologies and interventions. Tying health aid to particular technologies or interventions, however, even if recognized as cost-effective by international authorities, can also reduce the efficiency of aid within countries. A recent review of global health partnerships noted that GAVI’s norm to finance the higher-cost pentavalent hepatitis B vaccine instead of existing lower-cost variants or the introduction of the expensive rotavirus vaccine, without national cost-effectiveness studies, creates room for doubt regarding the allocation efficiency of the distribution of health spending that results.\textsuperscript{16} Similarly, the requirement to purchase U.S. Food and Drug Administration (FDA)–approved antiretroviral medicines with President’s Emergency Plan for AIDS Relief (PEPFAR) financing greatly reduces the cost efficiency of a developing country’s AIDS treatment program.

Health-sector strategies. Another indicator of aid alignment with recipients’ priorities is aid in support of a government health-sector strategy, often disbursed through the government budget and conditioned on agreement of the main elements of the strategy or certain performance indicators, or both. In spite of international calls to move toward budget support since the mid-1990s, such allocations represented only 12 percent of disbursements in 2005 (Exhibit 3). A key constraint in expanding program aid is progress in meeting minimum standards for public spending management.

Duration and sustainability. The extent to which donors are able to commit aid over multiyear periods to sustain financing of scaled-up service provision is a critical ingredient in the effectiveness of health aid. In countries with a small formal taxable economy and a resulting weak revenue base, a transition away from aid financing is likely to be long term. For example, a simple model of the potential health budget in a low-income country indicates that it would take at least ten years to raise government health spending by US$5 per capita under optimistic assumptions and twenty years in cases where the revenue-to-GDP ratio and health spending share are not rising.\textsuperscript{17} Yet despite these long-term horizons, the majority of aid agencies—with the exception of the U.K. Department for International Development
programs, GAVI, and the Global Fund—continue to commit grants to countries for one to three years for current spending and five to six years for project aid. Short-duration aid, described as a result of reluctance to invest in long-term institution building, leads to the creation of parallel structures (project implementation units and NGO implementation of projects) and a preference for quickly delivering technical assistance.

Aid agencies’ financing. Another aspect of duration relates to the terms of financing available to aid agencies themselves, which affects their ability to turn around financing on good terms for recipients. Unlike GAVI’s regular financing window, which often relies on short-term donor contributions, the launch of IFFIm provides a guaranteed flow to GAVI for ten years. On the other hand, the Global Fund faces constant struggles to replenish its funding; for example, attendees at a July 2006 Global Fund donors’ meeting discussed how to fill a $0.7 billion gap in financing for the second half of that year.

Rolling grant making. Although formal commitment periods may be short, practically speaking, many donor activities are carried out on a rolling basis. Nonetheless, rolling grant making raises concerns about the sustainability of essential services if a grant is discontinued. Signals of the likely duration of funding from donors are weak. For example, only GAVI sets a sunset clause for grant support. Although more-vigilant finance ministries will be alert to the risks of grant-financed recurrent spending, they are likely to accept “windfall” grants out of a belief that temporary support is better than none.

Exit strategies. Donors explicitly or implicitly assume that countries will be able to finance the supported health services at the termination of the grant. GAVI, for example, sponsors the preparation of a financial sustainability plan alongside its grants to assess whether or not a recipient or its partners will be able to cover financing after a grant expires. However, it is rare for donors to look at government health financing flows overall to assess the feasibility of a sustainable exit from grant financing.

### EXHIBIT 3

Aid Supporting Health-Sector Programs From Various Countries, 2002–2005

<table>
<thead>
<tr>
<th>Country</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total sector aid disbursed (from OECD members)</td>
<td>$104</td>
<td>$104</td>
<td>$175</td>
<td>$539</td>
</tr>
<tr>
<td>Denmark</td>
<td>0</td>
<td>24</td>
<td>41</td>
<td>47</td>
</tr>
<tr>
<td>European Community</td>
<td>0</td>
<td>1</td>
<td>4</td>
<td>96</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>0</td>
<td>28</td>
<td>27</td>
<td>21</td>
</tr>
<tr>
<td>United States</td>
<td>66</td>
<td>0</td>
<td>38</td>
<td>275</td>
</tr>
<tr>
<td>Sector aid as percent of aid disbursed⁴</td>
<td>4.8%</td>
<td>8.2%</td>
<td>5.1%</td>
<td>12.5%</td>
</tr>
</tbody>
</table>


NOTE: Millions of U.S. dollars, unless otherwise specified.

⁴ Only includes allocated by type.
Longer-term aid. While longer-term aid raises concerns related to the political cycle within recipient countries as well as efficiency losses, Benn Eifert and Alan Gelb argue that longer commitment periods can be associated with limited efficiency losses with a flexible precommitment system of performance-based indicators that could be adjusted over the life of a program. A country-by-country assessment of needed terms and a coordinated fund-raising and commitment process could generate longer-duration financing for key recurrent costs.

Aid volatility. Predictable aid financing facilitates planning and helps integrate aid in a medium-term financing strategy for the sector. With shallow domestic financial markets or high levels of overall indebtedness, or both, many low-income and some middle-income countries have inadequate reserves to cover their own revenue volatility, let alone unexpected shortfalls of aid.

Health aid shortfalls can affect the longer-term efficacy of treatment (uncompleted courses of treatment leading to drug-resistant diseases) and lead to an exodus of staff from the sector. If donors increasingly are coordinating health aid flows through pooled funding and sectorwide approaches, the risks of sudden stops in aid could rise. Also, with an increase of performance-based aid, donors face difficult trade-offs between setting incentives to raise the efficiency of aid while also potentially increasing aid volatility.

Cross-national assessments and solutions. Cross-national empirical assessments find that (1) aid to developing countries became more volatile during the 1980s and 1990s; (2) slow-growth countries—particularly in Africa—have higher aid volatility; and (3) the volatility of aid to fragile states is double that of aid to other low-income countries. Solutions to these issues have been offered; Eifert and Gelb suggest that a buffer stock facility, equivalent in value to between two and four months of imports, can buffer public spending against short-run spending in aid fluctuations.

But analysis of health sector-specific aid volatility has been limited. The World Bank examined donor commitments for health in seven African countries for 1997–2001 and found dramatic fluctuations over time attributed to exchange-rate fluctuations, donors’ decisions, donors’ administrative delays, absorptive capacity of recipient countries, and noncompliance with loan conditions.

The problem is how to interpret these data, which are frequently cited as a motivation for innovative financing. On the one hand, spending on capital and equipment might naturally be lumpy; in general terms, health aid prior to the Monterrey consensus in 2002 was primarily for infrastructure, equipment, and technical assistance. The sector-specific issues related to volatility are problematic only if relevant to recurrent spending and budget aid. A recent study in several African countries found much volatility in budget support; quarterly disbursements are well short of projections—often 30–90 percent of planned.

Traditional versus innovative financing. Comparing predictability between traditional and innovative financing sources is fraught with difficulty as a result of lack
of data on planned phasing of disbursements, as well as project- and country-specific issues. With these caveats in mind, we compared disbursement rates on the World Bank health-sector portfolio with the Global Fund grant portfolio, considering only projects and grants that were active at the end of 2006. We looked at the dispersion of disbursements around a linear time trend as an indicator of volatility. Global Fund grants are intended explicitly to have a more or less linear drawdown of grants, disbursed at regular quarterly intervals, while World Bank projects are not explicitly intended to be disbursed linearly.

Overall, the deviation from the fitted time trend is similar for the World Bank and the Global Fund portfolios. In both cases, the time trend explains just over half of the variation of disbursements across the duration of aid, implying a great deal of variability in disbursement across their portfolios. On average, however, Global Fund grants are 90 percent disbursed at the scheduled end of the grant, compared with about 80 percent disbursed for World Bank projects—a very impressive result for both agencies, particularly for the World Bank, which accounts for disbursements ex-post. The available data suggest that performance-based innovative financing (from the Global Fund) has not markedly reduced the predictability of aid in comparison to one of the largest sources of traditional health aid. Yet tension remains between performance-based incentives, on the one hand, and ensuring a stable and reliable source of financing, on the other.

**Fragmentation and proliferation.** The fragmentation of aid flows to recipient countries is widely recognized to strain limited administrative capacity, reduce the efficiency of aid through duplication of activities, and result in more uncoordinated aid flows than would otherwise be the case. Fragmentation is closely linked to the behavior of donors, seeking to plant their “flag” across many countries.

The problems arising from multiple aid sources have long been recognized as not yet being effectively addressed. Greater donor fragmentation is associated with an erosion of bureaucratic quality in recipient countries, and the “poaching” of government staff by donors may contribute to the weakening of core bureaucratic functions. However, the literature does not explore the extent of aid fragmentation within the health sector.

**Acute situation in health.** Health suffers from acute aid fragmentation and donor proliferation. Of the twenty-eight bilateral and multilateral agencies reporting to the OECD that disburse to the health sector, fifteen are active in forty-three or more of 145 countries consistently covered by OECD Development Assistance Committee (DAC) data. To illustrate, Cambodia receives approximately $60 million in donor disbursements from fourteen active bilateral donors and at least five multilaterals that report to the OECD, and more than 100 NGOs are active in the
health sector. Predictably, the Ministry of Health in Cambodia receives more than 400 visiting donor missions per year.\textsuperscript{31}

OECD aid disbursement data show that the health sector was much more fragmented at the recipient level than aid for education or agriculture in 2002–04.

Comparison with nonhealth sectors. Fragmentation also appears to have been increasing in health while stable or declining in other sectors. In health, donors spread assistance in a less concentrated way than in education and agriculture (Exhibit 4), which largely explains why aid in health is more fragmented for recipients than aid in other sectors.

Higher aid fragmentation in health than in other sectors may be a feature of the global public-good nature of many priority health services. Efforts to control or eradicate communicable diseases require a global approach and therefore less concentrated aid flows than is the case in other sectors. As a result, the Joint United Nations Program on HIV/AIDS (UNAIDS), Global Fund, and United Nations Children’s Fund (UNICEF) have the highest levels of aid proliferation among donors reporting to the OECD, reflecting their global mandates. But the multitude of United Nations (UN) agencies—UNAIDS, UNICEF (including GAVI), the WHO (including the Global Fund), the United Nations Population Fund (UNFPA), and the UNDP—delivering health aid and technical assistance is also a contributory factor to aid fragmentation for health. Such fragmentation is recognized within the UN as a major problem that needs to be tackled.\textsuperscript{32}

The coexistence of large vertical funds and extensive bilateral health aid programs raises the premium for more focused support at the level of the individual donor agency. The differences of aid proliferation across donors suggest that many major donors could develop a more geographically focused approach to health aid and contribute to reduced aid fragmentation and improved efficiency of aid delivery, particularly among high-proliferation, second-tier donors (in terms of aid volumes), including Japan, Spain, France, and Germany.

\textbf{Efforts to address fragmentation.} Aid recipients and donors have made efforts to address fragmentation issues. On the recipient side, some twenty countries

\begin{table}[h]
\centering
\begin{tabular}{|l|c|c|c|c|}
\hline
\textbf{Sector} & \textbf{2002} & \textbf{2003} & \textbf{2004} & \textbf{2005 (prelim.)} \\
\hline
Agriculture & 56 & 67 & 55 & 68 \\
Education & 63 & 67 & 66 & 68 \\
Health and population & 73 & 72 & 74 & 82 \\
\hline
\end{tabular}
\caption{Aid Proliferation Indices: Bilateral Assistance By Sector, 2002–2005}
\end{table}

\textbf{SOURCE:} Organization for Economic Cooperation and Development (OECD) Development Assistance Committee (DAC) Creditor Reporting System database, Table 5.

\textbf{NOTES:} Proliferation index calculated by (1–Theil index) $\times$ 100. Proliferation index for each donor weighted by aid share for sector proliferation index. Includes 112 recipient countries (all developing countries excluding micro states and countries with incomplete data). The number of donors varies across years because of entry and exit of donors. Data for 2005 for health exclude United Nations Population Fund (UNFPA) disbursements.
either have implemented, are planning, or are considering a health sectorwide approach (SWAp, or budget support) with a common strategy, output indicators, reporting procedures, and, in some cases, pooled funds. Health SWAps are concentrated in countries that have the highest levels of donor fragmentation, with seven of the top ten countries ranked by aid fragmentation having or considering the strategy (Exhibit 5). However, SWAps remain a minor share of total health aid (because relatively few donors participate); their setup is management-intensive; and efficiency improvements depend on having major health donors, including vertical funds, in the SWAp.

Discussion And Next Steps

Against a background of rapid growth in health aid volume, there is much scope to improve the terms of aid and its efficiency. The good news is that aid for health does respond to recipients’ aggregate disease burden, capacity, commitment to health, and quality of governance. However, we found that health aid is overly targeted to small countries, and the criteria and cost-effectiveness rationales for allocating across disease-specific interventions are not well developed. Improving health outcomes will also depend on improving the terms of aid delivery. Most health aid is still short term, volatile, unpredictable, often geographically or technologically tied, and highly fragmented. Health aid is predominantly implemented off-budget, but without a clear vision of how it will eventually be funded on budget through country systems.

Impact of innovative financing instruments. These instruments are helping improve aid terms in some areas. GAVI and the Global Fund, the major innovative financing institutions, perform well on some key aid-efficiency parameters—particu-

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### EXHIBIT 5
Health Aid Fragmentation And Sectorwide Approaches, Ten Most Fragmented Aid Recipients, 2002–04

<table>
<thead>
<tr>
<th>Country</th>
<th>2002–04 average Aid Fragmentation Index</th>
<th>Considering, planning, or Implementing a health SWAp?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vietnam</td>
<td>88.6</td>
<td>Yes</td>
</tr>
<tr>
<td>Mozambique</td>
<td>86.7</td>
<td>Yes</td>
</tr>
<tr>
<td>Burkina Faso</td>
<td>86.0</td>
<td>Yes</td>
</tr>
<tr>
<td>Nicaragua</td>
<td>84.0</td>
<td>Yes</td>
</tr>
<tr>
<td>Tanzania</td>
<td>84.0</td>
<td>Yes</td>
</tr>
<tr>
<td>Angola</td>
<td>83.8</td>
<td>No</td>
</tr>
<tr>
<td>Congo Dem. Rep.</td>
<td>83.6</td>
<td>No</td>
</tr>
<tr>
<td>Chad</td>
<td>83.4</td>
<td>No</td>
</tr>
<tr>
<td>Malawi</td>
<td>83.4</td>
<td>Yes</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>83.0</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**SOURCE:** Organization for Economic Cooperation and Development (OECD) Development Assistance Committee (DAC) Creditor Reporting System database; and Swiss Tropical Institute Web site.

**NOTE:** SWAp is sectorwide approach.
larly by extending the duration of their aid support and analyzing longer-term financial sustainability issues. They also support alignment of aid with disease burden in the case of HIV/AIDS and tuberculosis. But innovative financing performs less well on other aid terms—alignment with recipient countries’ priorities and the tying of aid to particular technologies and diseases—and new innovative financing institutions complement rather than replace traditional mechanisms, thus increasing aid fragmentation. Limited evidence on the volatility of aid suggests that innovative financing has not made much improvement relative to traditional sources.

Innovative financing faces the same tensions and trade-offs as traditional aid in delivering aid effectively. Tensions exist between allocating aid in support of recipients’ own health priorities (thus increasing chances that the resources will be used most effectively) or across the most cost-effective treatments (to maximize the impact on health status). Ideally, countries’ priorities and health needs will be the same, but lack of information, poor donor coordination, and inflexible health spending patterns will create divergences in many cases. Rigorous cost-effectiveness studies, use of recipient financial systems, pooled funding, and joint donor-government health-sector assessments would all contribute to minimizing the gaps between priorities and needs. Innovative financing also faces the inevitable trade-off between setting financial incentives to use aid effectively and assuring a predictable flow of funds for health services. The limited evidence suggests that performance-based aid does not necessarily imply greater volatility. Proposals to support aid “buffer stocks” may contribute to further reducing volatility.

- **Perils of creating new financing institutions.** Innovative financing delivered through new institutions enters an already crowded field of health aid agencies. To reduce the high costs of aid fragmentation, the bilaterals need fewer but larger country programs. They should make a major effort to convert their resources into “good money,” which can be used effectively by recipient countries. This might imply untying aid or channeling scaled-up financing through existing innovative financing mechanisms such as GAVI and the Global Fund or multilaterals such as the World Bank—all aid sources that finance recurrent costs under favorable terms.

- **Interconnectedness of magnitude, alignment, and terms.** Shortfalls in financing for global health priorities and the long-term horizons for sustainability in low-income countries suggest that the efficiency of the marginal dollar of aid is as important as ever. Thus, innovative financing proposals must be assessed ex ante on their capacity to meet the financing needs of developing-country governments and partners, not only in magnitude but also in alignment and terms. The aid efficiency issues examined here are limited and should be expanded to encompass the full set of criteria that are relevant to assessing the existing and potential aid flows.
The authors gratefully acknowledge research support for this paper via a grant from the Bill and Melinda Gates Foundation to the Brookings Institution and thank David de Ferranti, Charles Griffin, Maria-Luisa Escobar, and two anonymous referees for their helpful comments. Thanks also to Daniel Low-Beer at the Global Fund and Sasha Angikar Djordjevic at GAVI for providing disbursement information used in this paper and to Tristan Blanchard for her assistance. The views expressed in this paper are those of the authors and should not be attributed to the Gates Foundation or the IMF, its Executive Board, or its management.

NOTES
2. See online Supplemental Exhibit 1 at http://content.healthaffairs.org/cgi/content/full/26/4/935/DC1.
11. Except for health spending, which is lagged two years, and DALYs lost, which is lagged three years, these reflect the latest available data.
12. The major disease burden categories are TB, STDs excluding HIV/AIDS, HIV/AIDS, malaria and other infectious diseases, respiratory infections, maternal conditions, perinatal conditions, nutritional deficiencies, noncommunicable diseases, and injuries (including conflict-related injuries).
13. See online Supplemental Exhibits 2 and 3, as in Note 2.
14. This result may also reflect lower unit costs of treatment associated with a given prevention and treatment regimen.
17. Results were derived from a simple model in which the recurrent health budget per capita is defined as the product of health share of total revenue, revenue share of GDP, and level of GDP per capita. An increase in any of these three factors would lead to an increase in the recurrent health budget.
18. GAVI first-phase funding (2000–2005) made grant commitments for vaccine financing for five-year peri-
ods. Phase 2 financing (2006–2015) will follow each country’s national planning and budget cycle. Tristan Blanchard, Brookings Institution, personal communication, 22 December 2006. The U.K. Department for International Development (DFID) has made a twenty-year political commitment to financing UNITAID, formerly known as the International Drug Purchase Facility. See DFID, “New International Partnership to Sink Prices on Life-Saving Medicines in Poor Countries,” Press Release, 19 September 2006, http://www.dfid.gov.uk/news/files/pressreleases/unitaid-partnership.asp (accessed 9 May 2007). Global Fund grants are programmed for five years, providing that a review is approved after two years. Current proposals include a rolling continuation channel for grants that have concluded. This would provide up to six years of further support, subject to a midterm review, and would apply to the top one-fourth or one-third of projects by performance rating.


24. Eifert and Gelb, “Improving the Dynamics of Aid.”

25. Gottret and Schieber, Health Financing Revisited.

26. The Monterrey consensus was the outcome of the United Nations International Conference on Financing for Development and included commitments to increase development assistance.


28. See online Supplemental Exhibits 4 and 5, as in Note 2.


