



2010/ED/EFA/MRT/PI/02

Background paper prepared for the
Education for All Global Monitoring Report 2010

Reaching the marginalized

Vertical Funds in the Health Sector: Lessons for Education from the Global Fund and GAVI

Devi Sridhar & Tami Tamashiro
2009

This paper was commissioned by the Education for All Global Monitoring Report as background information to assist in drafting the 2010 report. It has not been edited by the team. The views and opinions expressed in this paper are those of the author(s) and should not be attributed to the EFA Global Monitoring Report or to UNESCO. The papers can be cited with the following reference: "Paper commissioned for the EFA Global Monitoring Report 2010, Reaching the marginalized" For further information, please contact efareport@unesco.org

Vertical Funds in the Health Sector: Lessons for Education from the Global Fund and GAVI

Devi Sridhar & Tami Tamashiro¹

2010 UNESCO GMR Background Paper

Final Draft

Introduction

There are over 230 international organizations, funds, and programmes providing development aid throughout the world (O’Keefe 2007). Philanthropic development aid is heavily concentrated in the health sector and has been growing over the past decade: about half of all international aid from private sources is invested in global health (Merten 2008). The majority of international health aid is delivered for specific uses or programmes, commonly called ‘vertical’ funding. Vertical funding specifies and targets resources for particular diseases, services, or interventions in the health sector of a given country and usually focuses on interventions that are considered cost-effective with measurable results. Vertical interventions typically have separate funding proposal and allocation processes, delivery systems and budgets with varied structural, funding and operational integration in the broader country health system (Atun et al. 2008). Vertical approaches initially emerged as natural channels for developing government action in severely resource-constrained and donor-dependant countries and were considered interim strategies to achieve improved health outcomes (WHO World Health Report 2008). More recently, philanthropic vertical funding in the health sector adheres to businesslike values with problem-oriented strategies that focus on performance goals. Examples of vertical health programmes include the U.S. President’s Emergency Plan for AIDS Relief (PEPFAR) and the GAVI Alliance’s Hib initiative.

¹ Devi Sridhar is a Postdoctoral Fellow in Politics in Oxford. Tami Tamashiro is a former graduate student at the University of Oxford. Contact details: devi.sridhar@politics.ox.ac.uk

Health aid financing can also be delivered to countries through 'horizontal' approaches. Horizontal funding in the health sector is a traditional mode of healthcare delivery that focuses on primary healthcare. Horizontal funding approaches are broad-based, integrative, and offer long-term public improvements in overall health outcomes delivered through primary care services. For example, the World Health Organisation (WHO) strengthening health systems initiative and sector-wide programmes (SWAPs) are examples of horizontal health programmes.

Discussion about the comparative effectiveness of vertical versus horizontal approaches can be traced over the past 50 years. In 1978, the International Conference on Primary Health Care was convened by the WHO and United Nations Children's Fund (UNICEF) in Alma Ata, Kazakhstan. Representatives from all nations attended this conference, and for the first time, healthcare challenges in disadvantaged countries were seriously examined and linked with development opportunities. The conference generated the Alma-Ata Declaration which strongly emphasized: health as a basic human right; the role of the state in the universal provision of health care; and community participation as a fundamental prerequisite for effective health care (Maciocco 2007). The declaration acknowledged the importance of community-oriented comprehensive primary healthcare for all nations, as well as the required changes needed in economic, social, and political structures to enable equitable healthcare access.

Soon after Alma-Ata, the financial crisis in the early 1980s initiated a move toward selective primary care. The horizontal health funding approaches that originated from Alma-Ata concepts were criticized as being unattainable, especially in resource-deprived countries, due to vague implementation strategies, immense costs, and the need for a large trained workforce. Vertical strategies that focused on medical interventions, such as vaccinations were proposed to achieve more immediate results. Although WHO's *Health for All by 2000* initiative in the late 1980s aimed to achieve comprehensive global primary healthcare based on horizontal delivery of basic services, failing to achieve its goals further fueled a paradigm shift from horizontal to vertical funding strategies for health services. In conjunction, greater support for vertical health

funding grew given the success of smallpox eradication (Atun et al. 2008) and the looming AIDS epidemic. Interest in horizontal versus vertical health funding again peaked with the release of the World Bank's 1993 World Development Report *Investing in Health*, which focused on Disability Adjusted Life Years (DALYs) gained by particular vertical disease interventions. In response, Vincent Navarro and others criticized an increasingly narrow focus on diseases rather than general health systems. The United Nations Millennium Development Goals (MDGs) in 2000 specified indicators that have further encouraged the development and growth of multiple vertical programmes to target specific health interventions, thus reinforcing funding approaches that target specific diseases.

Discontentment among developing country governments grew in the early 21st century, and donors became increasingly aware of the influx of aid missions and projects deployed in developing countries. Thus, in early 2004, the Paris Declaration on Aid Effectiveness was adopted by the Organisation for Economic Co-operation and Development (OECD) countries, which inspired a broader call for greater aid effectiveness and focused on the principles of harmonization, alignment and coherence. In 2008, the Paris Declaration was re-affirmed in Accra by key donors, and in homage to the 30th anniversary of Alma Ata, WHO focused its annual World Health Report on primary care.

Like a pendulum, the vertical versus horizontal financing debate has swung back and forth many times over the past 50 years. This condensed and incomplete historical account of vertical and horizontal funding approaches in the health sector highlights just a few major events that have influenced health aid funding today. While there is near universal consensus that optimal health systems are the key to improving health and that donors must move from vertical towards horizontal financing, current practice continues to focus on vertical financing strategies (Sridhar & Batniji 2008). In fact, there has been an incredible rise, especially in the past decade, in the number and type of funds allocated through vertical funding mechanisms. As of 2008, there were over 90 global health partnerships (McCull 2008) that overwhelmingly target health

interventions for disease-specific projects. These new vertical health aid donors often have successful business aptitude, apply private sector investment techniques to aid monies (e.g. the GAVI Alliance's International Finance Facility for Immunisation) and utilize effective public relations strategies. Much of the increase in monies for global health has been directed to address HIV/AIDS, malaria and TB. A recent study of the four major donors in global health noted that in 2005, funding per death varied widely by disease area, from US \$1029.10 for HIV/AIDS to \$3.21 for non-communicable disease (Sridhar & Batniji 2008, see Box 2 for discussion on HIV/AIDS and UNAIDS). This finding suggests that donors do not base their decision-making processes on morbidity or mortality data. The study also noted the difficulty in discerning the amount of aid money that flows vertically versus horizontally in the health sector given the complicated manner in which donors categorize their aid.

Despite the rhetoric of various mechanisms for health aid funding, why does most health aid flow to vertical programmes? We put forth several plausible explanations. First, the recent shift to vertical health funding might be attributable to the values and businesslike strategies of major philanthropic donors. These private donors (e.g. Bill & Melinda Gates Foundation) strive for timely and quantitative results and revise their grants based on performance indicators. For these donors, vertical funding mechanisms are ideal to achieve their goals and to leverage concurrent investments from the public and private sector. Vertical funding may remain relatively nonexistent in other sectors due to the lack of private philanthropist donors as seen in the health sector.

Second, the imperative for donors to fund programmes that demonstrate measurable results in a short time-frame demonstrates a preference for vertical health funding. Since it is difficult to accurately monitor and evaluate the impact of horizontal interventions (e.g. primary healthcare), donors have very little incentive to fund broader health systems (Sridhar 2008). For example, the global health community does not have accurate non-disease-specific mortality estimates, which creates a lack of data to quantitatively assess the success or failure of horizontal

funding approaches. Specifically, information is unavailable about the mortality rate due directly or indirectly to a lack of access to health systems. This insufficiency of current health metrics to determine results of, and improvements to, horizontal health funding, also fails to determine and evaluate community (as well as regional and national) health needs. In other words, the lack of measurement tools impacts both broader health system and preventive public health financing and strategies. This leads to considerable uncertainty among researchers and donors in deciding how best to invest monies. With the current health system driven by data collection of disease-specific causes of death, investing in broader health systems is seen as a bottomless pit, where there is no universally accepted proxy for the impact of health systems investment on mortality. However, when incentives (e.g., through data-driven feedback or widespread public advocacy) are aligned towards funding health systems, ‘vertical’ donors have demonstrated a willingness to incorporate horizontal funding programmes into their initiatives. Ultimately, the tension still remains between the recognized importance to improve health systems and fund horizontal activities with the current reality of immense financing for vertical interventions led by the business acumen of private donors.

In order to shed light on the successes and limitations of vertical approaches in the health sector, this paper describes and assesses the design of two of the largest global health initiatives, the Global Fund to Fight AIDS, Tuberculosis, and Malaria (Global Fund) and the GAVI Alliance (GAVI). Both organisations function as international public-private partnerships that funnel capital into low-income countries for specific vertical health programmes and are based on the concept of performance-based funding. While these global partnerships share many similarities, both have achieved varying degrees of success and have divergent priorities and governance strategies.

The Global Fund

The Global Fund was created in 2001 to serve as a financing mechanism for HIV/AIDS, TB and malaria. Although it is officially a Swiss foundation, it receives administrative support from the WHO and fiduciary support from the World Bank as a trustee². The World Bank's role is limited to disbursing funds to Principal Recipients upon receiving instruction to disburse from the Global Fund secretariat. Since its inception in 2002, the Global Fund has committed over US\$14.9 billion to more than 140 countries. Disbursements have tended to lag behind grant approvals; the target length of time between commitment and disbursement is 8 months, but in practice, this process tends to take a few more months (i.e. between 9-11 months).

The idea of the Global Fund was first discussed at the 2000 G-8 meeting in Okinawa and again at the 2001 Abuja African leaders summit. In Abuja, Kofi Annan, then Secretary-General of the UN, called for the creation of a global fund to provide a new channel for additional resources to target HIV/AIDS, tuberculosis and malaria. He called for a 'war chest' of US\$10 billion per year to fight HIV/AIDS and other infectious diseases (Annan 2001). In June 2001, a UN General Assembly Special Session concluded with a commitment to create such a fund, which the G-8 supported and helped finance at their 2001 meeting in Genoa. In January 2002, a permanent secretariat was established, and just three months later after, the Global Fund approved its first round of grants.

The new initiative was created to not only significantly increase the resources available to countries to address these three diseases, but also to ensure that allocation was demand-driven, aligned to country ownership³ and performance oriented. Since its inception, the concept of country ownership has been a key pillar of the Fund's work. Through the country coordinating mechanism (CCM) each country is responsible for determining its own needs and priorities (within the three diseases), based on consultation with a group of diverse stakeholders including

² See http://www.theglobalfund.org/documents/6_pp_fiduciary_arrangements_4_en.pdf for discussion of fiduciary arrangements

³ While country ownership is a cornerstone of the Global Fund, the in-built priorities of the Fund (HIV/AIDS, TB and Malaria) result in countries being limited in what they can apply and use funds for.

national and local governments, NGOs, the private sector and people living with, or affected by, the diseases.

The majority of funding has come from the governments of industrialized countries, mostly the G8 (see Table 1). The US alone has given close to 30% of funding and in 2009, President Obama pledged an additional \$900 million. It is important to note that US law requires that US contributions to the Fund do not exceed 33% of total Fund receives. While the Fund is keen to draw private sector contributions, it does not accept in-kind donations (e.g. drugs) or earmarked funds. It only accepts unconditional funds.

Table 1: List of Contributors to the Global Fund (cash pledged)⁴

Donor	Pledge Timetable	Total amount (in US\$ million)
Australia	2004-2010	168
Belgium	2001-2010	115
Brazil	2003-4, 2006-7	.2
Brunei Darussalam	2007	.05
Cameroon	2003, 2007	.1
Canada	2002-2004	100
	2005-2010	734
China	2003-2010	16
Denmark	2002-2010	212
European Commission	2001-2010	1427
Finland	2006-2009	16

⁴ From <http://www.theglobalfund.org/en/pledges/?lang=en> as of 31 August 2009

France	2002-2010	2493
Germany	2002-2010	1273
Greece	2005, 2007, 2009	2
Hungary	2004-6, 2008	.06
Iceland	2004-2005	.4
	2006-08	.7
India	2006-2010	11
Ireland	2002-2010	228
Italy	2002-2003	200
	2004-2010	1165
Japan	2002-08, 2009-	1406
Korea (Republic of)	2004-2009	11
Kuwait	2003, 2008	2
Latvia	2008	.01
Liechtenstein	2002, 2005-8	.4
	2004, 2006, 2009	.2
Luxembourg	2002-2010	24
Mexico	2003, 2005	.2
Netherlands	2002-2010	648
New Zealand	2003-2005	2
Nigeria	2002-3, 2006	20
Norway	2002-2010	347
Poland	2003-06, 2008	.2

Portugal	2003-2010	16
Romania	2007-2008	.5
Russia	2002-2010	289
Saudi Arabia	2003-06, 2008-10	28
Singapore	2004-2008	1
Slovenia	2004-2006	.03
	2007-2008	.1
South Africa	2003-2008	10
	2006, 2008	.3
Spain	2003-05, 2007-10	765
	2006	64
Gen.Catalunya/ Spain	2005-2008	8
Sweden	2002-2010	547
Switzerland	2002-2003	10
	2004-2010	37
Thailand	2003-2012	10
Uganda	2004-2007	2
United Kingdom	2001-2015	2286
United States	2001-2008	5428
Other Countries	2001-2004	3
Total		20126
<i>Other</i>		
Bill & Melinda Gates	2002-2004, 2006-2010	650

Foundation		
Communitas Foundation	2007-2009	3
Debt2Health - Germany		32
Indonesia	2008-2012	37
Pakistan	2009-2012	28
UNITAID	2007	39
Chevron Corporation	2008-2010	30
Idol Gives Back	2007-2009	17
(PRODUCT) RED™ and Partners: American Express, Apple, Converse, Dell + Windows, GAP, Giorgio Armani, Hallmark, Motorola Foundation, Motorola Inc. & Partners, Starbucks Coffee, Media Partners and (RED) Supporters ¹¹		
The United Nations Foundation and its donors:		
Hottokenai Campaign (G-CAP Coalition Japan)	2006	.3
Other UNF Donors	various	4
Other Donors	various	
Total		839

Grand Total		20966

The Global Fund does not directly work in-country or implement programmes. Rather, it serves as a financial instrument, managing and disbursing resources through an independent and technical process. It operates transparently, must demonstrate accountability, and employs a rapid grant-making process. Proposals are reviewed by a Technical Review Panel and assessed based on fulfilling certain eligibility criteria. Grants are awarded based on ‘rounds of funding,’ with a total of eight completed rounds since its inception. High-quality proposals are recommended to the Board for funding, and recommendations have been made for approximately 40 percent of proposals submitted.

Countries submit proposals to the Global Fund through a Country Coordinating Mechanism (CCM). CCMs are country-level partnerships that develop and submit grant proposals, which do not have to be previously endorsed, to the Global Fund based on priority needs at the national level. After grant approval, they oversee progress during implementation. CCMs usually consist of representatives from governments, NGOs, donors, people living with the diseases, faith-based organisations, the private sector and the academic community. For each grant, CCM nominates one or two organisations to serve as Principal Recipient. Since the CCM is a committee and not an implementing agency, it allocates the oversight and responsibility for the grant to the Principal Recipient. The Principal Recipient is responsible for local implementation of the grant, including oversight of sub-recipients of grant funds, and communication with the CCM on grant progress. In South Africa, for example, the Ministry of Finance is the Principal Recipient given that all sources of external funding must first go through

its doors. The Ministry of Health is a sub-recipient that then further allocates the funding to civil society groups for implementation.

Principal Recipients also work with the Global Fund Secretariat to develop a two-year grant agreement that sets programme goals to be achieved over time. Local Auditors are also contracted to assess the capacity of the Principal Recipient to administer grant funds and be responsible for implementation. The main auditors are PriceWaterhouseCoopers, KPMG, Emerging Markets Group, and the Swiss Tropical Institute.

Box 1: Zambia's CCM (from Mataka 2004)

As of 2004, Zambia's CCM consists of 19 members (7 government, 5 NGO/Community-Based Organisation/People Living with HIV/AIDS, 4 development partners, 1 academic, 1 FBO (Faith-Based Organisation) and 1 private sector). For the first round of funding, the CCM agreed that four of the members had the capacity to be Principal Recipient: the Central Board of Health (part of the Ministry of Health), the Ministry of Finance, the Churches Association of Zambia and the Zambia Social Investment Forum. In the end, the CCM endorsed having the first three listed as shared Principal Recipients. As a result of some lobbying, a fourth principal recipient, Zambia National AIDS Network, was selected. Thus, the Global Fund disbursed funds to four principal recipients including two from civil society.

There are a number of guidelines for the CCMs: CCM members from the nongovernmental sector must be selected in a documented, transparent manner; CCMs must provide evidence that they include representatives of communities living with the disease; CCMs must put in place a transparent and documented process soliciting submissions and ensuring the input of a broad range of stakeholders in the proposal development and grant oversight process; CCMs must have a transparent, documented process for the nomination of the Principal

Recipient; and CCMs must have a written plan in place to mitigate against conflict of interest in situations where the Chair or Vice-Chair of the CCM and the Principal Recipient are from the same entity. About two-thirds of all Principal Recipients are government institutions, but most recently, the Global Fund has worked towards 'dual track financing,' where the grant is split across different Principal Recipients (see Box 1).

CCMs have faced a number of problems (Lawson 2004). These include:

1. The CCM's role and operating methods are not clearly defined, and are not clearly understood by CCM members and outsiders.
2. The CCM is dominated by government members. Civil society and people living with the diseases are underrepresented and have little influence.
3. CCM members who are supposed to represent NGOs are not chosen by the NGO sector and do not properly represent them.
4. CCM members are not involved in choosing the CCM Chair or in selecting the Principal Recipient.
5. The CCM Chair also serves as Principal Recipient and thus has a conflict of interest.
6. There is no genuine involvement by CCM members in the CCM decision-making process. Decisions are made in advance by the CCM Chair and a few others.
7. CCM members are asked to sign a proposal to the Global Fund even though they had no input into its preparation and little prior knowledge of its content.
8. The CCM does not have access to sufficient money, practical resources or expertise to operate effectively.
9. CCM officers do not share information within and outside the CCM.
10. CCM members do not know whether the project funded through the Global Fund grant is being effectively implemented

The problems that CCMs face vary by country; in general, they are not seen as being ‘donor-driven.’ However, there is anecdotal evidence that given inadequate technical expertise to put together a grant proposal, there has been heavy reliance on consultants and staff from the WHO and UNAIDS. This is because at the country level, the Global Fund does not itself provide technical assistance and capacity-building support. Instead, partner organizations provide this, such as UNAIDS, WHO, World Bank, as well as other UN and bilateral agencies. To address mixed capacity at the country level, in 2005, the Global Fund created the Global Implementation Support Team (GIST), which is a group that meets once every few months to coordinate a response to implementation bottlenecks in HIV/AIDS grants.⁵ GIST was initially composed of seven partners (WHO, UNFPA, UNICEF, UNDP, the World Bank, the UNAIDS Secretariat and the Global Fund) but was expanded in 2006 to include PEPFAR, GTZ, the International Council of AIDS Service Organisations, the International HIV/AIDS Alliance, the International Coalition on AIDS and Development and the Brazilian International Centre for Technical Cooperation. The GIST Secretariat is based in UNAIDS and consists of a Chair (currently UNFPA), Co-Chair (currently Global Fund), a Coordinator (UNAIDS) and host (UNAIDS). GIST has developed a set of Principles for Technical Support and is developing a global-level database known as CoATS (Coordinating AIDS Technical Support). GIST also applies research and analysis on overcoming systematic obstacles to improved technical support.

As noted above, the Global Fund has adopted a performance-based funding scheme. New programmes are evaluated at two years (referred to as Phase 2)⁶ to assess progress in meeting coverage targets, and continued funding is contingent on positive evaluation, which has been associated with a number of predictive factors (Radelet & Siddiqi 2006). Most grants that are approved initially are also approved for Phase 2, save for a few exceptions. Of the first 124

⁵ <http://www.unaids.org/en/CountryResponses/TechnicalSupport/gist.asp>

⁶ http://www.theglobalfund.org/documents/phase2/Phase_2_FAQs.pdf

grants reviewed by the Global Fund Secretariat, 119 received Phase 2 funding (Schocken 2009). The Fund uses a four-tier measurement framework to assess operational and grant performance, systems effects and impact on the three diseases. If programmes are positively evaluated, they are approved for a further three years. There have been concerns about what happens with grants at the end of their five-year term. As part of its 2007-2010 strategy, the Global Fund announced the introduction of the Rolling Continuation Channel (RCC), which provides continued funding of high-performing grants for up to an additional six years. This helps facilitate the expansion of successful programmes, reduce the risk of gaps in funding, and remove the costs of putting together a new proposal.

The Board, which oversees the Global Fund, is responsible for its overall governance, development of new policies and the approval of grants. The Chair and Vice-Chair of the Board each serve two-year terms with the positions alternating between representatives from the donor constituency and from the recipient delegation. The Board itself is made up of a total of 24 members; the 20 voting members include 7 representatives from developing countries (one from each of the six WHO regions and an additional representative from Africa), 8 from donor countries, 3 from civil society, 1 from private sector, and 1 from the Gates Foundation. In addition, there are four non-voting members whom are key partners, such as the WHO, UNAIDS, World Bank and a Swiss citizen (as the Fund is legally a Swiss Foundation). Civil society seats are for one developed country NGO representative, one developing country representative and one person who represents the communities affected by the diseases. The Board has been viewed as a good model of governance (Global Health Watch 2 2008).

The secretariat of the Global Fund is based in Geneva and consists of around 250 staff members. There are no staff members in developing countries. The emphasis on a relatively lean secretariat results in overhead costs consuming less than three percent of donor contributions. Richard Feachem was the first Executive Director from July 2002 until April 2007. After much

wrangling between developed and developing countries representatives on the Board, Michel Kazatchkine was appointed as his successor.

The Global Fund has been praised for its transparency (Global Health Watch 2 2008). It provides detailed financial information about commitments and disbursements, as well as donor pledges and contributions. An electronic library provides internal and external evaluations of the Fund. The Global Fund Observer, which is a newsletter produced by the NGO Aidsplan, reports on the financing of the Global Fund, monitors its progress; comments on the approval, disbursement and implementation of grants; provides guidance for stakeholders within application countries; and reports and comments on board meetings. The Global Fund also works closely with the regional branches of the NGO, Friends of the Global Fund, which lobbies donor governments to increase their contributions.

In terms of how grants are used, almost two-thirds of funds are spent by governments; almost a third by NGOs and multilateral organisations; and the remainder by faith-based organisations, the private sector and communities affected by the disease. Almost half of award funding is used for the purchase of medicines and commodities (48%); a third is used to strengthen infrastructure (11%) and expand training (22%); and the remainder is allocated towards monitoring and evaluation (2%), administration (11%) and other expenses (6%). In response to criticism that the Fund is not building in-country capacity, Richard Feachem noted that roughly 35 percent of funds contribute to health systems strengthening. Michel Kazatchkine claimed that vertical funds for AIDS, malaria and TB have strengthened systems; provided, refurbished and renovated infrastructures; and financed training and salaries of workers. He estimated that the Global Fund has committed roughly US\$4 billion to support the health workforce in both the public sector and civil society.

From 2002 to 2007, 57%, 15% and 27% of grant funding were allocated to HIV/AIDS, TB and malaria, respectively. The Global Fund provides 20% of overall resources for HIV/AIDS, 45% for TB and roughly 67% for malaria. More funding is allocated towards

treatment rather than to prevention of these diseases. The Fund works in over 140 countries worldwide. However, given that HIV/AIDS, TB and malaria are concentrated in Sub-Saharan Africa, between 2002 and 2007, over half of grant funds (55%) were given to Sub-Saharan Africa. When stratified by income, 64%, 28%, and 8% of disbursements went to lower, lower-middle and upper middle income countries, respectively (Grubb 2007).

In terms of its aid to fragile states, the Global Fund estimates that it has disbursed US\$2.9 billion in fragile and conflict-affected states since its creation in 2001 (OECD 2009). The Global Fund is the second largest donor in Equatorial Guinea, providing 11 percent of official development assistance. According to the Global Fund's 2008 Progress Report, 70 percent of programmes in fragile states are performing well, and the overall effective performance of all countries supported by the Global Fund is only slightly higher at 75 percent. The Global Fund admits, however, that performance improvements for fragile states and countries with weaker health systems require a focused effort from partners. In 2005, the Global Fund published a report of its grants to states that, 'cannot or will not deliver core functions to the majority of its people, including the poor.' Core functions include territorial control, safety and security, capacity to manage public resources, delivery of basic services and the ability to protect and support the ways in which the poorest people can sustain themselves. The report notes that in its first four rounds of funding, the Global Fund has invested one-third of committed funds in 45 fragile states, financing a total of 123 programmes. Given their lack of capacity, the performance by grants in fragile states was surprisingly comparable to that of the 55 grants implemented in stable states. Most of the grants in fragile states (14 out of 19) were managed by Principal Recipients from the government sector, and these grants performed equally well as those managed by non-government Principal Recipients. The report concludes that if further assessment validates these early results, the Global Fund may offer a unique, performance-based model within which other donors can engage with fragile states in health and other sectors.

The GAVI Alliance

The GAVI Alliance (GAVI), formerly the Global Alliance for Vaccines and Immunisation, was launched at the World Economic Forum in January 2000 and received a start-up grant from the Gates Foundation. GAVI aims to reduce the mortality rate in children under five targeted by the UN MDGs through immunisation strategies. GAVI is a public-private partnership of major stakeholders in immunisation to finance and speed delivery of new and improved vaccines for children in low-income countries. Partners in the GAVI Alliance include: developing and industrialised country governments, research and technical health institutes, industrialised and developing country vaccine industries, civil society organisations, the Gates Foundation and other philanthropy organisations, the WHO, UNICEF and the World Bank Group.

As of January 2008, 67 percent of donor governments made multi-year (covering three years or more) donations to GAVI, which was twice the amount of contributions from donor governments in 2005. Donor contributions to GAVI can be made through direct donations, long-term pledges, and pledges to specifically support the development and manufacture of vaccines. GAVI has been directly financed by 14 governments to date: Australia, Canada, Denmark, European Commission, France, Germany, Ireland, Luxembourg, Netherlands, Norway, Sweden, United Kingdom, U.S., and Spain (see Table 2). Through the end of December 2008, total donor contributions to GAVI were over US\$3.8 billion. Private industry donated almost a third of that amount, with the remaining balance originating from both direct contributions and long-term commitments from various governments.

Table 2: List of Contributors to GAVI (cash received)⁷

Donor	Pledge Timetable	Total amount (in US\$ million)
-------	------------------	--------------------------------

⁷ For a detailed breakdown of donor contributions to GAVI, please see: <http://www.gavialliance.org/support/donors/index.php> as of 3 June 2009.

Australia	2006-2008	15
Canada	2002-2006	149
Denmark	2001, 2004-2007	17
European Commission	2003, 2007-2008	29
France	2004, 2006	19
Germany	2006-2007	11
Ireland	2002-2008	23
Luxembourg	2005-2008	4
Netherlands	2001-2005, 2007-2008	160
Norway	2001-2008	376
NORAD	2008	.2
Spain	2008	41
Sweden	2001-2008	72
United Kingdom	1999/2000, 2002-2007	122
United States	2001-2008	494
Total Direct Contributions	1999/2000-2008	1530
IFFIm	2006-2008	1226
Bill & Melinda Gates Foundation	1999/2000-2001, 2003-2005, 2007-2008	1063
Other Private	1999/2000, 2002-2008	16
Private and Institutions	1999-2000-2008	1079

Grand Total		3835
--------------------	--	-------------

GAVI provides funding to national governments based on country income (i.e. countries with gross national income per capita below US\$1000), which describes half the world's population. There are currently 72 countries eligible to apply for GAVI support – half of which are located in Sub-Saharan Africa (Jamison et al. 2006). GAVI's immunisation funding varies by country in its extent of vertical funding: while there are separate funding channels that rely extensively on donor funding, immunisation services are delivered through the same network of service providers as most other health services in GAVI-eligible countries.

Grants are made based on a rigorous application process; an Independent Review Committee (IRC) comprised of experts drawn from a broad geographic base reviews country proposals. IRC members are not connected with GAVI and are selected (primarily from low and middle income countries) for their expertise in public health and specific knowledge of vaccines and immunisation. Grant applications may undergo multiple rounds of revisions between GAVI and recipient countries before GAVI approves the grant; on average, 50% of proposals are approved at their first submission, 37.1% of proposals are approved after the second submission, 11.3% of proposals are approved after the third submission, and 1.6% of proposals are approved after the fourth submission. There are varying application and submission guidelines for GAVI programmes. For example, GAVI's support to Health System Strengthening (HSS) will have two application rounds in 2009: May 1 and September 11. It currently takes around 6 months from the time of HSS application submission to funds arriving in recipient countries. The length of this fund disbursement process could be reduced if country submissions do not have to be revised. On average, GAVI takes 3.65 months from the first proposal submission to the grant approval. After the grant is approved, it takes approximately 1.5 -2.5 months for funding (not disbursement).

About 22 GAVI-eligible countries are considered to be ‘fragile states’ based on the World Bank’s classification system for Low Income Countries Under Stress that may be in active or post-conflict situations. In general, GAVI offers greater support for these fragile states due to their lower country vaccine co-financing, greater opportunity for immunisation coverage awards, and increased need for health system and immunisation services support. Over the past few years, GAVI has acknowledged the special needs of fragile states by strengthening their health system capacity to create sustainably the infrastructure to administer immunisation programmes. However, while GAVI tries to support primary health through its HSS initiative started in 2007, its efficacy in fragile states is difficult to evaluate. For example, the fragile state of Liberia has demonstrated great increases in vaccine coverage and was able to increase DTP3 immunisation to 87 percent by 2005, but information is unavailable about the specific outcomes of HSS support in Liberia awarded in July 2007. Unarguably, the incorporation of a health systems approach for fragile states is critical for the proper functioning of vertical health interventions and for broader in-country health systems improvement. In many parts of Africa, vaccine infrastructure has been suboptimal, and adoption of new vaccines into national epidemiology programmes has been obstinate due to lack of support for routine vaccine delivery throughout the continent (Jamison 2006). Vertical health interventions need to be implemented in conjunction with broader health system approaches, given that logistical and operational factors in fragile states are barriers that require substantial continuous investments in human capital, equipment, and financing.

GAVI's history can be separated into two phases. The principal objective of GAVI’s first five-year work phase (2000-2005) was to disburse rapidly funds to countries extending the reach and quality of immunization programmes. Funding was focused on the supply of three underused vaccines (Hib, hepatitis B, and yellow fever) and on strengthening vaccine delivery systems. Support was provided in five-year grants with the expectation that countries would increase their own contribution, eventually financing their own immunization programmes.

GAVI created incentives for countries to increase immunisation through performance-based cash rewards: GAVI's Immunisation Services Support (ISS) allocated additional money to countries for every additional child immunised.

In its second phase of operation (2005-2010), two primary factors caused GAVI to review its strategy and priorities: a critical need to improve country health systems and the inability of recipient countries to sustain long-term funding. Since December 2005, GAVI has moved toward a broader health perspective that strives to improve the general health sector of recipient countries in addition to increasing immunisation services. One of GAVI's recently revised strategic goals is to strengthen the capacity of countries' health systems in order to deliver immunisation and other health services in a sustainable manner. GAVI now offers a new form of support funding – Health System Strengthening (HSS) and acknowledges that improved immunisation service delivery in many countries has been impeded by broader health system constraints. GAVI is investing US\$800 million in developing countries' health systems between 2006 and 2015. This investment is flexible and long-term, since barriers to immunization vary from country to country. Health ministries also need flexibility in planning improvements to best suit their needs. Frequently, barriers to greater immunisation coverage include: limited local management and supervisory skills, infrastructure failures (transport or equipment), workforce numbers and training.

Another change in GAVI's policies during its second operational phase concerns the sustainability of immunisation programmes. GAVI formally implemented co-financing of vaccines in 2007 and requested recipient countries to co-finance the introduction of new vaccines and to co-finance existing vaccines beyond the first five years (or equivalent) of GAVI support. This new co-financing policy aims to gradually increase countries' share of vaccine costs to facilitate the sustainability of country immunisation programmes. In addition, GAVI-eligible countries are requested to contribute a set amount for the first new vaccine, according to their funding capability classification. For each subsequent new vaccine, the co-financed amount

increases by a minimum of US\$15 cents per dose. Countries are expected, if possible, to scale up co-financing by 15 percent annually. Other recipient countries can maintain current co-financing levels until 2010 after which they will increase gradually. In its new sustainability plan, GAVI sets a sunset clause for grant support and sponsors the preparation of a financial sustainability plan alongside its grants to assess whether or not a recipient country will be able to cover financing after a grant expires.

GAVI utilizes two mechanisms for disbursing funds that draw heavily on private-sector mechanisms: the Advance Market Commitment (AMC) and the International Finance Facility for Immunisation (IFFIm). AMC provides a method of accelerating the development and manufacture of vaccines. Through the AMC, donors commit money to guarantee vaccine prices once they are developed (per demand from GAVI-eligible countries), provided that they meet stringent, pre-agreed criteria on effectiveness, cost and availability. The AMC also helps sustained vaccine usage by recipient countries, since it also guarantees a long-term price. IFFIm was proposed to the Group of Seven countries by the UK government in 2005. Wealthier donor countries provide immediate and long-term aid usually in 10-20 year, legally binding aid commitments. IFFIm borrows against these pledges on capital markets, raising funds that can be disbursed in an optimal way.⁸ The aim of IFFIm is to raise US \$4 billion on capital markets over the next 10 years – enough to support the immunization of half a billion children through immunisation campaigns.

GAVI provides reward-based support through Immunisation Services Support (ISS) that aim to increase coverage of vaccines through performance-based incentives. ISS support, representing 11 percent of GAVI's business, responds to country proposals and represents flexible cash that countries can use to improve immunisation performance (Lob-Levyt 2009). ISS payments are disbursed in proportion to the numbers of additional children immunized (beyond

⁸ GAVI could leverage more funds by encouraging donor governments to invest in the IFFIm fund instead of, or in conjunction with, direct donations. GAVI's inferred encouragement of IFFIm investment may help explain why governments are willing to pledge long-term donations.

original immunisation targets) and are calculated according to country achievements in surpassing previous year targets. GAVI does not prescribe conditions for the use of cash rewards but imposes strict performance requirements and relies on governments and inter-agency coordinating committees to set goals and monitor progress. Currently, due to over-reporting of immunisation coverage by many recipient countries, GAVI has suspended further ISS payments until they complete a review of countries with significant data variance in immunisation coverage.

The GAVI Alliance Board establishes all policies, oversees operations and monitors programme implementation of GAVI. Board membership is drawn from a range of public and private partner organisations, as well as experts from the private sector. The Board's representative members ensure that institutions and constituencies provide formal input in the development of GAVI's policies and the management of its operations. The GAVI Alliance Board is comprised of four permanent seats for representatives from the Bill & Melinda Gates Foundation, UNICEF, WHO, and the World Bank. In addition, there are 18 rotating Board members who are representatives from various constituency groups: developing country governments (5 seats), donor governments (5 seats), research and technical health institutes (1 seat), industrialized country vaccine industry (1 seat), developing country vaccine industry (1 seat), and civil society organizations (1 seat). The Board also includes unaffiliated Board members with no professional connection to GAVI's work in order to bring independent and balanced scrutiny to the Board's deliberations – currently, there are 10 unaffiliated Board members. The GAVI Alliance Board meets twice a year and holds periodic teleconferences to review progress and policies.

The GAVI Alliance Board is supported by a secretariat with offices in Geneva and Washington. The GAVI Secretariat is responsible for GAVI's day-to-day operations including: mobilizing resources to fund programmes, coordinating programme approvals and disbursements, and managing legal and financial issues. The Secretariat is led by Executive

Secretary Dr. Julian Lob-Levyt and is supported by a number of teams. GAVI's 2009 administrative budget is about US\$42.4 million and has a current total of about 123 personnel in its Geneva and DC offices. 83 percent of funds GAVI receives goes toward its grant programmes, 7 percent funds its work plan, 5 percent funds administrative costs of the Secretariat, and the remaining 5 percent funds IFFim interest expenses (i.e. financial cost of front-loading).

GAVI has experienced success in bringing together committed partners, mobilizing investments, and increasing the numbers of immunised children. It has revitalized international concern for, and knowledge about, immunisation in resource-deprived countries, as well as developing effective instruments for dispensing money it raises (Muraskin 2005). Since its creation in 2000, GAVI has helped to significantly increase vaccine coverage for children around the world. From 2000-2007, GAVI has made available more than US\$3.7 billion for immunisation in GAVI-eligible countries. As a result, immunisation levels have increased dramatically, and the WHO estimates that 2.8 million premature deaths have been averted in 2000-2007 through use of GAVI-supported vaccines. During the same period, WHO estimates that GAVI protected 172 million children with new and underused vaccines. GAVI is also credited with achieving large-scale introduction of hepatitis B vaccination throughout the developing world.

Vertical Funds in Fragile States: Country Study of Sierra Leone (USAID 2007)

This country study is a summary of findings from USAID's 2007 report on country experiences with vertical funds and discusses the effects of both the Global Fund and GAVI in Sierra Leone. Vertical health funding provides a vital addition to the scarce resource base in Sierra Leone's health sector; vertical interventions have saved lives and alleviated suffering in this fragile state. Despite this, basic hygiene and better sanitation initiatives would go further to raise life expectancy than vertical TB and HIV/AIDS control programmes in Sierra Leone.

Sierra Leone has experienced dismal health outcomes due to widespread poverty, a decade of civil war, and various governance and human capacity issues. There is vast income disparity between the rich and poor. Malaria is endemic and the leading cause of morbidity and a major cause of mortality in the country. Despite the need for malaria funding, the Global Fund, which accounts for 10 percent of Sierra Leone's donor-supported health budget, terminated a US\$8 million malaria grant in September 2007 due to poor coordination, management failures, and poor service delivery by the principal recipient, the Sierra Leone Red Cross. In its new proposal for malaria, Sierra Leone's health ministry replaced the former principal grant recipient and believes it has the capacity to effectively manage funds through its National Malaria Control Programme. In October 2007, the Global Fund provided US\$9.6 million to fight HIV/AIDS. Some in-country stakeholders believed that HIV/AIDS funding was too high given the low infection rate of less than 2 percent. In addition, Sierra Leone's HIV/AIDS grants included 39 sub-recipients (e.g. NGOs), so it has been difficult to track where disbursed funds are actually going.

The Global Fund's rapid pace of fund disbursement and detailed monitoring and evaluation requirements can skew planning, complicate coordination, and lead to a supply-driven health agenda. It is claimed that the Global Fund holds all countries to similar monitoring and evaluation requirements and time frames without consideration of institutional capacity and flexibility to build capacity and implement activities. While rapid fund disbursement is important to make an immediate positive impact in the health outcomes of citizens, recipient governments and localities need to have the capacity to effectively utilize monies. Ultimately, vertical health strategies can be effective in fragile states like Sierra Leone, but careful consideration and forethought need to be paramount.

Due to competing interests within government, among donors, and civil society, districts in Sierra Leone adjust their health budget according to likelihood of available funds for particular diseases instead of reporting the country's true health needs. Sierra Leone receives US\$5 million

from the Global Fund for its TB programme. The Global Fund targeted four districts for its TB programme in Sierra Leone, the World Bank provided TB support to another 4 districts, and other donors supported the remaining four districts. The geographic division by TB donors caused some districts to receive more aid and resources than others: the Global Fund supported districts had more TB health centres and better TB control services than other districts. These funding discrepancies complicate national planning and coordination, cause resentment by in-country staff, and exacerbate inequities in health service delivery. Coordination with TB programmes is also exacerbated by the fact that each donor has its own indicators, formats, and reporting cycles that make reporting a time-consuming process that raises costs and reduces availability of staff time for other work. The Global Fund holds all countries to the same performance standards and time frames without regard for countries with weaker institutional capacity that need more time to build capacity for programme implementation.

GAVI directly procures and pays for vaccines while funds for delivery (e.g. personnel, transport, and cold chain equipment) are disbursed through the Ministry of Health and Sanitation with administrative backstopping from UNICEF and WHO technical support. While for the most part GAVI vertical health targets are well-aligned with national goals, other problematic diseases in Sierra Leone (e.g. cholera, Lassa fever, and onchocerciasis) might be neglected because there is minimal donor support for them—if given the opportunity, the Government of Sierra Leone might choose to redirect funds for HIV/AIDS to other non-targeted diseases. There are some problems of poor coordination in regards to GAVI support: problematic service delivery (e.g. lack of fuel for vehicles and generators, weak supply and inventory management, failure to reach remote areas); inequitable staff distribution across and within districts; mismatch between plans and implementation; inadequate coordination between the Ministry of Health and Sanitation and GAVI partners in the field; supply and cold chain breakdowns due to lack of generators and lack of planning for spare parts; and poor monitoring and evaluation at the local level of new vaccine coverage rates. Sierra Leone has the critical need

to improve its human resource capacity in the health sector: low salaries, poor environmental and work conditions and retention problems exist. Heavy demands from vertical health funds for rapid feedback of performance data reduces the amount of time health workers have for other health issues. NGOs that help implement vertical health services also have human capacity issues and performance inadequacies. Capacity building funds are included as a component of Global Fund and GAVI grants, but the need is far greater than those funds address. All levels of Sierra Leone's government articulate the need for long-term, large-scale, integrated effort to build human capacity in various health professions (e.g. doctors, nurses, hospital and clinic administrators, birth attendants, laboratory technicians, public administration and management).

Sustainability of health funds is another key issue due to the unpredictability of donor budgetary and project support. For a country like Sierra Leone, it is unknown when (and if) the government can independently support its vertical health programmes. The Global Fund and GAVI need to consider longer funding commitments as well as human capacity and financial implications to scaling up unsustainable vertical health programmes.

Challenges faced by Global Fund and GAVI

Distortion of Health Sector Priorities

Both the Global Fund and GAVI have been criticized for distorting developing country health sector priorities. Critics allege that vertically targeting three diseases (HIV/AIDS, TB and Malaria) and immunisation cause distortions in weak and under-funded health systems (Garrett 2007). Short-term advances in certain diseases or vaccination coverage run the risk of fragmenting health services.

The Global Fund has been criticized for focusing attention on three high-profile diseases at the expense of primary care and the social determinants of health. Table 3 provides a

snapshot of the five countries where fund grants made up the biggest proportion of total health expenditure between 2003 and 2005.

Table 3: Contributions of the Fund to National Expenditure on Health (Global Health Watch 2)

Country	GF Disbursements (US\$ million)	GF disbursements as % of total health expenditure (public + private)	GF disbursements as % of public health expenditure
Burundi	21.8	31.8	118.2
Liberia	14.2	17.6	28.0
Dem. Rep. Congo	48.3	15.3	31.1
Rwanda	53.1	12.6	22.4
Gambia	10.4	12.4	46.0

This critique ties into a more serious concern that the Global Fund might be further fragmenting and weakening country health systems. To address this, the Board created a separate category for health systems strengthening in the fifth round (Sidibe et al. 2006). However, the separate category was discontinued due to the view that this was not the reason for the Global Fund's creation, nor its comparative advantage. Thus, while the Global Fund encourages applications to budget for health systems within disease-specific grant proposals, it states that these activities must be 'essential to reducing the impact and spread of disease' (Global Health Watch 2, Global Fund 2007).

As the Executive Director of the Global Fund has argued, perhaps a natural by-product of disease-specific grants is the strengthening of health systems. The WHO Report, *The Global Fund Strategic Approach to Health Systems Strengthening*, identifies seven countries where this has clearly occurred. In addition, Gorik Ooms (2009) has argued that, '...critiques implicitly blame

the Global Fund for having too narrow a mandate...These critiques are blaming the Global Fund for the successes of its exceptional approach in part because their authors want this exceptional approach to exist for primary health care in general. I would argue that instead of critiquing the Global Fund's success they should be pushing for its approach to be expanded.' Ooms argues that the Global Fund should expand its mandate to become a 'Global Health Fund,' with broader health aims and not merely focused on HIV/AIDS, TB and Malaria.

GAVI has also been criticized for distorting health sector priorities through prioritizing immunisation programmes over improvements in primary health care systems. While increasing vaccine coverage reduces the incidence of, and mortality from, various diseases, immunisation service delivery needs to be strengthened and better integrated into routine general health services to ensure that more children receive needed vaccines (Ryman et al. 2008). In recent years, GAVI has tried to engage in a greater systems approach to public health development, while continuing to prioritize immunisation. GAVI now includes new funding for health systems support, but the implementation of this approach has been criticized by both health systems support advocates and critics. Advocates for this approach point out that in order to obtain health systems support funding, countries are required to complete extensive, burdensome analyses and plans. Specifically, they need to provide an analysis of health system constraints, demonstrate the process for identifying those constraints, address how those constraints will be addressed, and provide budget plans that demonstrate the link between those actions and increased immunisation coverage. Critics of the move towards a greater health systems approach argue that GAVI should focus on vaccines to avoid distractions from its original mission.

Vaccines chosen by GAVI may not necessarily be the most appropriate for all recipient countries given varying financial and health system constraints. Health budgets in many recipient countries are still far from what is required to provide decent minimal health services. Many GAVI-eligible countries and in-country workers would not necessarily place new children vaccines at the top of their national health priorities, because these resource-deprived countries

typically have a host of other pressing health challenges. In GAVI's second phase of operations (2005-2010), it added two new vaccines (pneumococcal and rotavirus) to its portfolio. GAVI is also developing a new investment strategy to determine which vaccines to offer to countries in the future. The shortlist of vaccines under evaluation targets four deadly diseases: cervical cancer, Japanese encephalitis, rubella, and typhoid. While these new vaccines may prove to be important and beneficial in GAVI-eligible countries, it is unclear if the shift to these new vaccines is appropriate and effective for all countries. It is also unclear to what extent GAVI-eligible countries are able to influence decisions about the development of new vaccines.

In addition, GAVI may provide inadequate support for technological shifts, for implementation, and for explanation and communication of new information to recipient countries. Tying funding to policy shifts due to new and improved vaccines has created uncertainty and a sense of coercion of recipient countries. William Muraskin argues that when a policy has shifted toward a newer vaccine, stakeholders in recipient countries have received insufficient information about the decision. Often, they do not receive evidence (e.g. cost-benefit analyses), information about whether the policy is flexible, or the logistics and trade-offs of using new vaccines. GAVI also prioritizes certain vaccines over others, and this prioritization can change and shift over time without adequate accommodating support for recipient countries.

Raising Funding/ Sustainability

Both the Global Fund and GAVI face challenges of raising funding and ensuring sustainability. The Global Fund holds 'replenishment' meetings every two years to discuss future funding. In March 2009, Michel Kazatchkine noted that the Global Fund needs an additional US\$4 billion to address its budget needs through 2010. While it is doubtful in the current financial climate that aid budgets will increase, he argued that the governments of developing

countries need external financial assistance now more than ever, and thus ‘the crisis is one more reason to increase aid to development.’

While the U.S. has been one of the largest contributors to the Global Fund, it has been criticized for channeling funding through its own bilateral initiative, PEPFAR rather than through the Global Fund (PBS discussion 2006, Sridhar 2009). PEPFAR was a hallmark initiative of the former President Bush, which disbursed US\$15 billion for HIV/AIDS prevention, treatment and care to 15 target countries from 2003-2008. PEPFAR was renewed for US\$48 billion in 2008 for another five years. Richard Feachem, former Executive Director of the Global Fund, has referred to the Fund as the ‘multilateral arm’ of US efforts.

GAVI also experiences problems with raising funds. Although its AMC initiative gained seed funding of US\$1.5 billion in 2007, GAVI estimates that it would need US\$35 billion to carry out its existing programmes through 2015 (Chokshi 2008). In addition, IFFIm bonded debt will continue far into the future negatively affecting donor ability and willingness for continuing country immunisation programmes (Muraskin 2004).

There are also issues of long-term financial sustainability of immunisation in GAVI-eligible countries. GAVI historically strived to leverage the drug industry to produce cheaper and greater quantities of vaccines to ultimately lower the cost of vaccines (Brown 2007). Given its assumption of decreased vaccine costs, GAVI believed that recipient countries would be able to eventually afford immunisation coverage without GAVI support. Given these two assumptions, GAVI expected a complete transition of immunisation coverage to national government partners. The first assumption has since 2000 proved to be false. While GAVI expected a drop in vaccine prices due to greater demand, the guaranteed vaccine market, reliable financing, and strong delivery systems have been slow to occur. GAVI initially failed to understand the situation it faced in the vaccine marketplace: procurement decisions were made on well-intentioned assumptions about supply, demand and market realities but without the benefit of analyses and comparisons of optional approaches and likely results. The second assumption is also flawed;

upon closer look at government budgets, even if immunisation is a national priority, many recipient countries have no financial means to sustain vaccine coverage and costs. If positive market changes for immunization do not materialise and recipient countries continue to be unable to take over responsibility for immunisation by 2015, then the problem of sustainability will be exaggerated further than alleviated (Muraskin 2004).

Performance-Based Incentives

The Global Fund and GAVI utilize performance-based incentives with the aim to ensure health financing is effective, accountable and transparent. Incentives focus on outcomes, reward solutions, and manage results of health programmes (Low-Beer 2007). There have been concerns that performance-based funding might penalize poorer countries, reduce the predictability of aid, and increase incentives to distort reported indicators. The Global Fund has not faced these problems on a large scale. On average, Global Fund grants are 90% disbursed at the scheduled end of grant compared with about 80% for World Bank. However, there are notable exceptions. In 2005, the Global Fund suspended grants to Uganda following reports of mismanagement and irregularities in procurement and subcontracting (Bass 2005). In 2006, the Fund suspended two grants in Chad and phased out its grants to Myanmar. This, tensions still remain between ensuring stable/reliable financing and implementing performance-based incentives.

Under its Immunisation Services Support, GAVI offers support in a reward phase, which begins from the third year after grant approval. Payments are calculated according to country achievements in surpassing previous year immunisation targets. To calculate financial rewards, GAVI uses a performance indicator and a baseline appropriate to the respective year. The performance indicator is the number of additional children aged less than one year who have received a given vaccine compared to the baseline. The baseline for the first reward is the number of additional children who were targeted to receive a given vaccine in the first year after

approval of GAVI support. The baseline for subsequent rewards is the number of additional children who were reported to have received a given vaccine in the previous year. GAVI then calculates the reward each year by multiplying the performance indicator by US\$20.

In contrast, GAVI has experienced setbacks and negative repercussions from its performance-based policies. The majority of GAVI's recipient countries have been inflating the number of children who have received vaccines, which has increased the amount of cash reward governments receive (Sternberg 2008). Over-reporting the number of additional children immunized occurs in two ways: vaccine coverage at the baseline year can be lowered; and vaccine coverage after the baseline year can be inflated, particularly from the third year when reward payments begin (Lim et al. 2008). The number of children receiving vaccines is based on official reports from countries to WHO and UNICEF—these reports are largely based on artificially inflated administrative data from health service provider registries. The quality of administrative data on immunization coverage remains problematic due to measurement problems and performance-based payment systems such as GAVI's ISS that encourages health-service providers to over-report coverage.

A recent study which examined the number of children receiving DPT vaccines in 193 countries from 1986 to 2006 found that vaccination estimates from countries' official data were much higher than immunization estimates based on surveys (Lim et al. 2008). Overall, recipient countries reported 13.9 million newly vaccinated children while surveys indicate that the actual number is closer to 7.4 million. At US\$39 per child, GAVI allocated US\$290 million, which is nearly double the US\$150 million that would have been justified at the established cost of US\$20 per additional child immunized (Sternberg 2008). In light of this recent study, GAVI officials created a task force to make recommendations to improve GAVI's data collection and performance. As a result of this study, GAVI suspended further ISS payments until they have completed a review of the countries where there is a significant data variance in reporting of immunization coverage.

Some argue that the inherent cause of over-reporting is not due to GAVI's use of incentives to improve vaccine coverage, but rather due to GAVI's failure to implement a better monitoring system that tracks recipient countries to prevent them from over-reporting immunisation coverage (Sternberg 2008). GAVI implements data quality audits (DQAs) that try to assess the accuracy of immunisation reports from health centres to districts to the national level by comparing this number against a re-count of paper records in health centres (Lim et al. 2008). Although GAVI requires countries to pass a DQA of their administrative data system to be eligible for reward payments, over-reporting remains a concern. Lim et al. (2008) note that there is an urgent need for independent monitoring and tracking of vaccination coverage to reduce over-reporting abuses. They continue that the incentive to over-report progress whether intentional or unintentional will always exist with performance based payments, so counteracting this problem requires independent monitoring and a system based on rigorous, empirical measurements using the best scientific methods available. They suggest that GAVI could implement a monitoring system that benchmarks vaccine coverage with periodic surveys either as a condition or component of GAVI support to provide timely information and to inform size of required payments. Countries that receive funding from GAVI and the Global Fund often need to have two separate health information systems to appropriately report progress on certain health indicators (Aiga et al. 2008). This leads to inaccuracies in data collection and increased economic and human capital costs. It has been suggested that the Global Fund and GAVI consider standardizing and coordinating their reporting structures and health information systems in developing countries, which will help with international comparability of data and indicators.

Country Case Study: Ghana (USAID 2007)

USAID funded a study on perspectives from Ghana and Sierra Leone on vertical health funds in 2007. This country study is a summary of findings from USAID's report and discusses the effects of both the Global Fund and GAVI in Ghana. Ghana has experienced improvements in overall health system and service delivery through strong project management and national health policy planning. However, the country still struggles with numerous health challenges. Malaria is the largest killer in Ghana with 22 percent of children under 5 succumbing to the disease. The Ministry of Health prioritizes an overwhelming 23 different diseases for critical surveillance and response.

Vertical health funds have substantially increased resources available to Ghana's health sector, and according to some government officials, the health system may have even collapsed without the arrival of vertical health donors. The Global Fund and GAVI are the largest health donors operating in Ghana: the Global Fund alone accounts for nearly 30 percent of donor funding for health. Vertical health funds have enabled Ghana to allocate non-earmarked funds to increase health staff and salaries and build system capacity, which has improved Ghana's performance and secured further funding from the Global Fund and GAVI. This additional health funding has also increased job satisfaction and morale and reduced the brain drain phenomenon, which is a major element of the health system's sustainability over the long-term.

Initially, immunisation was not the main government priority, but vertical programmes have changed this. The government currently finances about 55 percent of total vaccines given resulting in immunisation rates among children nearing 80 percent or higher. The Ministry of Health budget has been skewed with the rise of donor health funding: 30 percent of Ghana's health budget is from donors with 60 percent of this amount earmarked and the majority of these earmarked funds (60 percent) *not* aligned with the Ministry of Health's priorities.

The main challenges that vertical funding pose are the creation of health system distortions, sustainability issues, the lack of flexibility with funds, and energy-intensive grant application process. While the Global Fund and GAVI provide funds for capacity building and infrastructure improvements, it has not been sufficient for Ghana's health system to have the capacity to scale up and maintain an improved health system. There is a need for greater flexibility in using donor health funds to disburse resources according to the overall national health plan. The case of Ghana demonstrates that while the country is a strong performer with positive results from vertical funding, greater flexibility will allow the government to deliver improved healthcare services across the country to meet priority needs and emergency health issues. The government also needs increased flexibility with regard to funding other non-earmarked diseases (e.g. Guinea worm and cholera) to offset their rising rates due to a lack of funds and attention for them. While GAVI has a Health Systems Support funding mechanism, it has separate application and grant processes initially created to support the needs of fragile states.

Grant applications and numerous rounds of grant revisions for GAVI and the Global Fund are time-consuming and financially-intensive for Ghana. Government officials in Ghana suggested that proposal processes for health funding could be simplified once a country has already won a significant number of grants and performed well. Less paperwork for proposal preparation and verification, as well as rolling revision rounds into longer timeframes would decrease transaction costs and would be hugely beneficial.

Conclusion

Global public-private partnerships like the Global Fund and GAVI finance initiatives to address many public health challenges throughout the world. There is, however, room for improvement so that vertical interventions can optimally operate in highly resource-constrained

environments with limited infrastructure, weak basic health systems and severe healthcare service shortages (Gates GHP 2005). The Global Fund and GAVI may consider having more flexibility throughout their operations to address the specialised needs for strong performing countries, as well as fragile states. The vertical fund model for health has important lessons for other issue areas such as education. Two areas that vertical funds can make significant progress in, as demonstrated by the Global Fund and GAVI, are increased monies for global health challenges and a focus on results and progressive achievements. However, introducing vertical funding into low-income countries has its drawbacks and a number of negative externalities for recipient countries (see Horton 2009). First, recipient countries are burdened with multiple processes, funding requirements, and reporting structures, which make it difficult for them to holistically strategize health sector priorities. Second, vertical health funding has led to situations where programmes compete for scarce resources and human capital. The discrepancy in salaries between regular public sector jobs and comparable jobs with better-funded vertical health programmes and projects has exacerbated the human resource crisis in fragile health systems (Atun et al. 2008). Third, while performance-based funding was developed in the 1970s in the education sector (Low-Beer 2007), distortion of results (e.g. over-reporting or under-reporting) is an important consideration in implementing vertical programmes in the education sector. Finally, there is limited integration of vertical programmes with general health services in recipient countries, which lead to duplicated efforts where inefficiencies in health care delivery and fragmentation of health system occur. The positive as well as detrimental impact of vertical funds in the health sector must be taken into account before looking at whether mechanisms such as the Global Fund and GAVI could be expanded to other sectors.

Box 2: a UNAIDS for Education? (Sridhar forthcoming)

In 1994, the Joint UN Programme on HIV/AIDS was established in order to ensure a multisectoral response to HIV/AIDS by leveraging the resources of its co-sponsoring UN

agencies, as well as to experiment what this type of UN reform for an issue area could achieve. The original six cosponsors were UNICEF, UNDP, UNFPA, UNESCO and the World Bank. However this was later expanded to ten cosponsors including the ILO, UNODC, WFP and the UNHCR. Since 1994, UNAIDS has grown in size with a biannual budget of \$469 million and roughly 900 staff both in Geneva and in country and regional offices around the world.

The case of UNAIDS provides interesting lessons for UN reform in other issue areas. A structure such as UNAIDS can provide key functions towards advancing an issue area in several respects. First, a stand-alone coordinating entity can raise awareness and financing for that one issue if the leadership is given seniority within the UN system and this person is charismatic, passionate and understands how to market their issue. Within the WHO, it is difficult to advocate for significantly increased resources for one single problem given its mandate to ensure health broadly. Similarly, within UNICEF it is difficult to advocate for just malnutrition given its broader mandate of development assistance to children and mothers. The leaders of these bodies have to manage a number of disease areas and ensure balance in their organisation. In contrast, a body such as UNAIDS enables the leader to focus on one specific issue and devote all resources towards that aim. Second, this type of focus enables the leadership to make the case that this area is exceptional, thus deserving an exceptional response. Third, at least in rhetoric, a coordinating body can become the focal point in the multilateral architecture for information and policy guidance on that specific issue. Malnutrition in particular could benefit from this kind of focus given that information is splintered among the WHO, World Bank, WFP, FAO, UNICEF and the SCN. Finally, a new body provides an opportunity to develop a governance mechanism that reflects current power structures, e.g. voting rights to civil society and private sector and equal representation of developed and developing countries. The contrast here can be made to the WHO and World Bank which both have governance structures based on the world post-World War II. The lack of faith in both of these institutions by various actors, whether it is civil society groups or developing country governments, can be tied to inadequate representation.

However, establishing a stand-alone UN body also has several drawbacks. First, although a body might be established as a small, focused coordinating initiative, institutions tend to grow and become bureaucracies. Eventually they become an agency in themselves and then tend to compete with the other UN agencies rather than coordinate. Coordination might occur in rhetoric, but seems to rarely occur in practice. There is little incentive for partner UN bodies to relinquish control and participate meaningfully. Adding to difficulties of coordinating is that as initiatives grow, they tend to spread into areas beyond their initial focus resulting in replication and inefficiency within the entire system. One of the consequences of a limited pool of donors with an increase in the number of actors and initiatives is competition among the various parties, for the same pots of money. Given that the leaders of new initiatives need to fundraise for voluntary contributions, initiatives are highly dependent on donors which affect their perceived or real independence. In addition, initiatives that tend to both serve as an information source and advocate on behalf of their issue might have the incentive to augment its detrimental impact especially given the inadequacy of the underlying database of morbidity and mortality. Thus the reliability of data might be called into question.

References

- Aiga, H.; Kuroiwa, C.; Takizawa, I.; Yamagata, R. 2008. The reality of health information systems: challenges for standardization. *BioScience Trends* 2(1): 5-9.
- Annan, K. 2001. Secretary-General Proposes Global Fund For Fight Against HIV/AIDS And Other Infectious Diseases At African Leaders Summit. Available online at www.un.org/News/Press/docs/2001/SGSM7779R1.doc.htm.
- Atun, R.A.; Bennett, S.; Duran, A. 2008. *When do vertical programmes have a place in health systems?* World Health Organization Regional Office for Europe and European Observatory on Health Systems and Policies. Permanand, G. (Ed.)
- Baqui, A.H.; El Arifeen, S.; Saha, S.K.; Persson, L.; Zaman, K.; Gessner, B.D.; Moulton, L.H.; Black, R.E.; Santosham M. July 2007. Effectiveness of Haemophilus influenzae Type B Conjugate Vaccine on Prevention of Pneumonia and Meningitis in Bangladeshi Children: A Case-Control Study. *Pediatric Infectious Disease Journal* 26(7): 565-571.

- Bass, E. 2005. Uganda is learning from its Global Fund grant suspension. *Lancet* 366: 1839-40.
- Bill & Melinda Gates Foundation. Global Health Partnerships: Assessing Country Consequences. McKinsey & Company.
- Brown, H. 2007. Great expectations. *British Medical Journal* 334: 874-876.
- Centers for Disease Control and Prevention (CDC). February 15, 2008. Progress Toward Introduction of *Haemophilus influenzae* type b Vaccine in Low-Income Countries—Worldwide, 2004-2007. *Morbidity and Mortality Weekly Report* 57(06): 148-151.
- Chokshi, D.A. & Kesselheim, A.S. 2008. Rethinking global access to vaccines. *British Medical Journal* 336: 750-753.
- Cohen, J. 2001. Medicine: Rethinking a vaccine's risk. *Science* 293: 1576-7.
- Danovaro-Holliday, M.C.; Garcia, S.; de Quadros, C.; Tambini, G.; Andrus, J.K. April 2008. Progress in Vaccination against *Haemophilus influenzae* type b in the Americas. *PLoS Medicine* 5(4): 0530-0536.
- Garrett, L. 2007. Challenge of Global Health. *Foreign Affairs* 86: 14-38.
- Global Fund Website: What we do, Principles. Available online at: <http://www.theglobalfund.org/en/publications/whoweare/>.
- Global Fund. 2005. Global Fund Investments in Fragile States. Available online at: http://www.theglobalfund.org/documents/replenishment/london/fragile_states_3rdreplenishment.pdf.
- Global Fund. 2007. Guidelines for proposals, Round 7.
- Global Health Watch 2. 2008. The Global Fund to Fight AIDS, TB and Malaria.
- Grubb, I. September 13, 2007. Global Fund to Fight AIDS, Tuberculosis and Malaria.
- Horton, R. 2009. Venice statement: Global health initiatives and health systems. *Lancet* 374(9683): 10-12.
- Jamison, D.T.; Feachem, R.G.; Makgoba, M.W.; Bos, E.R.; Baingana, F.K.; Hofman, K.J.; Rogo, K.O. (Eds.) 2006. *Disease and Mortality in Sub-Saharan Africa*. The World Bank: Washington, D.C.
- Johnson, N.G.; Ruggeberg, J.U.; Balfour, G.F.; Lee, Y.C.; Liddy, H.; Irving, D.; Sheldon J.; Slack, M.P.E.; Pollard, A.J.; Heath, P.T. June 2006. *Haemophilus influenzae* Type b Reemergence after Combination Immunization. *Emerging Infectious Diseases* 12(6): 937-941.
- Lane, C. & Glassman, A. 2007. Bigger and Better? Scaling Up and Innovation in Health Aid. *Health Affairs* 26(4): 935-948.
- Lawson, P. 2004. The Global Fund: How CCMs can be made more effective. Available online at: www.gtz.de/de/dokumente/en-ccm-satellite-july04.pdf.

Lim, S.S.; Stein, D.B.; Charrow, A.; Murray, C.J.L. December 13, 2008. Tracking progress towards universal childhood immunisation and the impact of global initiatives: a systematic analysis of three-dose diphtheria, tetanus, and pertussis immunisation coverage. *Lancet* 372: 2031-2046.

Lob-levy, J. January 17, 2009. Vaccine coverage and the GAVI Alliance Immunization Services Support initiative. *The Lancet* 373: 209.

Low-Beer, D.; Afkhami, H.; Komatsu, R.; et al. August 2007. Making Performance-Based Funding Work for Health. *PLoS Medicine* 4(8): 1308-1311.

Maciocco, G. & Stefanini, A. Oct./Dec. 2007. From Alma-Ata to the Global Fund: the history of international health policy. *Revista Brasileira de Saúde Materno Infantil* 7(4): 479-486.

Marten, R. & Witte, J.M. 2008. Transforming Development? The role of philanthropic foundations in international development cooperation. Global Public Policy Institute.

Mataka, E. 2004. The Global Fund: How CCMs can be made more effective. Available at: www.gtz.de/de/dokumente/en-ccm-satellite-july04.pdf.

McColl, K. 2008. Europe told to deliver more aid for Health. *Lancet* 371(9630): 2072-73.

Muraskin, W. November 2004. The Global Alliance for Vaccines and Immunization: Is it a New Model for Effective Public-Private Cooperation in International Public Health? *American Journal of Public Health* 94(11): 1922-1925.

Muraskin, W. 2005. Crusade to Immunize the World's Children. USC Marshall Global BioBusiness Initiative.

O'Keefe, J. August 3, 2007. Aid – From Consensus to Competition, presented at Brookings Blum Roundtable 2007. Brookings Institute, Washington, DC.

Ooms, G. 2009. From the Global AIDS Response to Global Health? Discussion paper prepared for the Helene de Beir foundation and the International Civil Society Support group.

Organisation for Economic Co-operation and Development. March 2009. Ensuring Fragile States Are Not Left Behind: Summary Report.

Public Broadcasting Service. Frontline: The Age of AIDS. Interview with Richard Feachem. May 30, 2006. Available online at: <http://www.pbs.org/wgbh/pages/frontline/aids/interviews/feachem.html>.

Radelet, S. & Siddiqi, B. 2006. Global Fund grant programmes: an analysis of evaluation scores. *The Lancet* 369(9575): 1807-1813.

Ryman, T.K., Dietz, V., & Cairns, K.L. June 21, 2008. Too little but not too late: Results of a literature review to improve routine immunization programs in developing countries. *BMC Health Services Research* 8(134).

Schocken, C. 2009. Overview of the Global Fund to Fight AIDS, Tuberculosis and Malaria. Available online at: <http://www.cgdev.org/doc/HIVAIDSMonitor/OverviewGlobalFund.pdf>.

Sidibe, M., Ramiah, I. & Buse, K. 2007. The Global Fund at five: what next for universal access for HIV/AIDS, TB and malaria? *Journal of the Royal Society of Medicine* 99: 497-500.

Sridhar, D. 2008. *Battle against Hunger*. Oxford: OUP.

Sridhar, D. & Batniji, R. 2008. MisFinancing Global Health. *Lancet* 372(9568): 1185-91.

Sridhar, D. 2009. Who Leads in Global Health. *Chatham House World Today* 65(2).

Sridhar, D. forthcoming. Do we need another UN body? The case of UNAIDS. Under review.

Sternberg, S. December 11, 2008. Study: Nations inflate vaccine numbers to get more aid. *USA Today*.

USAID. United States Agency for International Development (USAID). 2007. *Enhancing Linkages with Vertical Health Funds: Country Case Studies of Ghana and Sierra Leone and a Comparative Analysis*. Washington, D.C.: Management Systems International.

World Health Organization. 2007. *The Global Fund Strategic Approach to Health Systems Strengthening*. Geneva: WHO.

World Health Organization. 2008. *World Health Report Primary Health Care: Now More Than Ever*. Geneva: WHO.

Further Reading

De Maeseneer, J.; van Weel, C.; Egilman, D.; Mfenyana, K.; Kaufman, A.; Sewankambo, N. 2008. Strengthening primary care: addressing the disparity between vertical and horizontal investment. *British Journal of General Practice*.

Drager, S.; Gedik, G.; Dal Poz, M. 2006. Health workforce issues and the Global Fund to fight AIDS, Tuberculosis and Malaria: an analytical review. *Human Resources for Health* 4(23).

GAO. 2007. *Global Health: Global Fund to Fight AIDS, TB and Malaria has Improved Its Documentation of Funding Decisions by Needs Standardized Oversight Expectations and Assessments*.

Hardon, A. & Blume, S. 2005. Shifts in global immunisation goals (1984-2004): unfinished agendas and mixed results. *Social Science & Medicine* 60: 345-356.

Jones, G., Stekettee, R.W., Black, R.E., et al. 2003. How many child deaths can we prevent this year? *Lancet* 362: 65-71.

The Henry J. Kaiser Family Foundation. 2009. *US Global Health Policy: In Focus- The Global Fund and the US in Their Next Phase*.

Msuya, J. 2004. Horizontal and Vertical Delivery of Health Services: What are the Trade Offs? Background paper for the World Development Report 2004. The World Bank: Washington, D.C.

Muraskin, William. The Global Alliance for Vaccines and Immunization: Is it a New Model for Effective Public-Private Cooperation in International Public Health?

Plamondon, K.; Hanson, L.; Labonte, R.; Abonyi, S. 2008. The Global Fund and Tuberculosis in Nicaragua. *Canadian Journal of Public Health* 99(4): 355-58.

Nossal, G.J.V. 2003. Gates, GAVI, the glorious global funds and more: All you ever wanted to know. *Immunology and Cell Biology* 81: 20-22.

The Reality of Aid. 2008. Global Vertical Programmes: a tale of too many funds. Prepared by European Network on Debt and Development.