Critical Interactions Between the Global Fund–Supported HIV Programs and the Health System in Ghana

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Abstract: The support of global health initiatives in recipient countries has been vigorously debated. Critics are concerned that disease-specific programs may be creating vertical and parallel service delivery structures that to some extent undermine health systems. This case study of Ghana aimed to explore how the Global Fund–supported HIV program interacts with the health system there and to map the extent and nature of integration of the national disease program across 6 key health systems functions. Qualitative interviews of national stakeholders were conducted to understand the perceptions of the strengths and weaknesses of the relationship between Global Fund–supported activities and the health system and to identify positive synergies and unintended consequences of integration. Ghana has a well-functioning sector-wide approach to financing its health system, with a strong emphasis on integrated care delivery. Ghana has benefited from US $175 million of approved Global Fund support to address the HIV epidemic, accounting for almost 85% of the National AIDS Control Program budget. Investments in infrastructure, human resources, and commodities have enabled HIV interventions to increase exponentially. Global Fund–supported activities have been well integrated into key health system functions to strengthen them, especially financing, planning, service delivery, and demand generation. Yet, with governance and monitoring and evaluation functions, parallel structures to national systems have emerged, leading to inefficiencies. This case study demonstrates that interactions and integration are highly varied across different health system functions, and strong government leadership has facilitated the integration of Global Fund–supported activities within national programs.

Key Words: AIDS, HIV, health systems, horizontal, integration, vertical

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INTRODUCTION

The benefits of integrating HIV programs with health systems to widen health care access and improve health outcomes have been the subject of a long-standing debate characterized by polarization of views on the relative merits of care delivery models that are either "integrated" or "nonintegrated" (ie, horizontal or vertical). Increased funding from global health initiatives, which led to an unprecedented expansion in access to HIV services and treatment in low-income and middle-income countries (LMIC), has intensified these debates.[1] Some have argued that programs funded by such initiatives created vertical and parallel service delivery structures and hence undermined health systems. But the evidence does not support these assertions.[2,3]

Although reductionist arguments have centered on binary solutions, a recent systematic review found no instances where health interventions were purely vertical (wholly nonintegrated) or horizontal (fully integrated) but instead yielded a heterogeneous picture evidencing varied levels of integration with health system functions. The extent and nature of integration is influenced by intervention complexity, health system characteristics, and contextual factors. However, there is limited empirical evidence on the extent and nature of integration of HIV programs with health systems functions and how integration affects program success.[4,5]

The rapid expansion of HIV financing, which by 2010 had enabled more than 5 million people to receive antiretroviral therapy (ART),[6] exposed frailties in the health systems of LMIC.[7] Expanded access, long-term care needs, and financial constraints in international and domestic health financing in LMIC means that investments in HIV programs need to be better leveraged to create synergies with health systems. More effective integration of HIV programs with health systems is one strategy to achieve synergies for expanding access to quality HIV services and to improve health outcomes beyond HIV.[8,9] Evidence demonstrating effective integration of HIV programs with health systems to create synergies is needed.

In this study, we use a new conceptual framework[10] to explore in Ghana how HIV programs supported by the Global Fund to Fight AIDS, Tuberculosis (TB), and Malaria (the Global Fund) interact with critical health system functions. We map the nature and extent of integration that has emerged and identify positive synergies and unintended consequences of integration. We explore the perceptions of national stakeholders on the strengths and weaknesses of the relationship between Global Fund–supported activities and the health system and their suggestions for improvement.

Since 2003, Ghana has benefited from US $175 million of funding approved in 12 Global Fund grants to address the HIV epidemic, accounting for almost 85% of the budget of the National AIDS Control Program (NACP). Ghana has also

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established a well-functioning sector-wide approach to financing its health system, with a strong emphasis on integrated care delivery through primary care. Hence, Ghana provides a good illustrative case to explore how rapid inflows of large external financing by international agencies, specifically, the Global Fund have influenced the organization of service delivery for HIV, the NACP, and its interaction with health system functions.

METHODOLOGY

The research, undertaken during 2008–2010, used quantitative and qualitative methods of inquiry. The research team, comprising local and international researchers, collected data for this case study from semistructured interviews, routine health information, national health statistics, and an extensive literature review. Interviews followed a standardized template from the Systemic Rapid Assessment Toolkit[11]to assess integration for 6 critical health system functions: stewardship and governance; financing; planning; service delivery; monitoring and evaluation; and demand generation.

The research team interviewed 35 key informants selected through purposive sampling, followed by snowballing, to ensure a broad range of stakeholders at each level of the health system and to include implementers, policymakers, members of the Country Coordinating Mechanism, and health leaders. The researchers recorded the interviews in English. These were transcribed verbatim and analyzed to identify emerging themes but also according to thematic areas mapping onto health system functions. The team based its findings on data triangulated from the interviews and a variety of publicly available materials, including government policy and strategy documents, routine health data, national health statistics, demographic and health surveys, and Global Fund grant data.

RESULTS

After years of political and economic instability, the west African country of Ghana has made remarkable strides in political, economic, and social development over the past 20 years.[12] However, Ghanaians continue to suffer high levels of morbidity and mortality from preventable communicable diseases, malnutrition, and poor sexual and reproductive health.[13] Communicable diseases, led by malaria, HIV, and TB, make up nearly 40% of the disease burden.

The government of Ghana began reforming its national health system during the mid-1990s, introducing a sector-wide approach to improve donor coordination and strengthen national systems without resorting to parallel financing and delivery structures. The government also instituted structural changes making the Ministry of Health (MOH) responsible for policy formulation, monitoring and evaluation, resource mobilization, and the regulation of health service delivery, and making the Ghana Health Service (which houses the national prevention and control programs for HIV, TB, and malaria) and the teaching hospitals the main service providers. These reforms and the funding of the health system were supported from domestic and international financing sources, which continue to support expansion of access to health care. International donors, including the Global Fund, account for about 10% of total health expenditure[14] and 20% of Ghanaian health sector funding.[15]

The Global Fund began financing HIV, TB, and malaria efforts in 2003 and became a major financier of these programs in Ghana, helping the government realize significant gains in treating and preventing these diseases. For example, the Global Fund provides 85% of the NACP budget. Substantial Global Fund support has enabled it to encourage better coordination and alignment of the health system not only in relation to the activities it finances but also, beyond that, with regards to the overall national HIV program.

In general, Global Fund–supported activities in Ghana are moderately integrated with the national disease programs, whereas the national HIV/AIDS, malaria, and TB programs—except for monitoring and evaluation of the HIV program–are almost fully integrated with the Ghanaian health system. The extent of integration for each of the functions varies as illustrated in Table 1 and further discussed below.

The MOH identified HIV, TB, and malaria as key priorities in the recent 5-year strategic plan (for 2007–2011) and annual programs of work. All Global Fund–supported program activities are part of the strategic plan. Activities for the public health sector response are managed through the NACP, the National Tuberculosis Program, and the National Malaria Control Program, which all lie within the MOH. However, stakeholders interviewed for this case study cited a lack of clarity in the responsibilities of the MOH (the principal recipient for many Global Fund grants) and the Ghana Health Service (the primary implementer of Global Fund grant activities). These interviewees reported that the strengthening of the trio of national control programs within the MOH has increased the programs' autonomy and reduced their accountability as lines of reporting were duplicated. A particular challenge to the response to HIV is the duplication of structures following the formation of the supraministerial Ghana AIDS Commission, essentially parallel to the NACP, in 2001.

Although the MOH is responsible for the oversight of health sector programs, the Country Coordinating Mechanism oversees Global Fund grants. Many informants interviewed regarded this body as duplicating existing structures such as the Inter Agency Leadership Committee (comprising heads of agencies under the MOH), Ghana Health Service, and the Ghana AIDS Commission. The highest decision-making body for AIDS, the commission is under the Office of the President and works closely with multilateral and bilateral agencies and with other international development partners. But it lacks clear accountability and has only limited oversight of grant implementation. Nonetheless, interviewees credited the commission with strengthening civil society and private sector involvement in policy-making and decision-making processes.

Several stakeholders interviewed suggested that one way to strengthen the Ghanaian health system would be to use Global Fund grants to promote regional and district decentralization for disease program planning, budgeting, and implementation. Such decentralization could facilitate bottom-up planning, improve the accountability of regional and district bodies, and make resource allocation more flexible.

TABLE 1. Integration of National HIV Program in Ghana With Global Fund–Supported Activities and the National Health System, 2009

	Integration of Global Fund-Supported Activities with National HIV Control Program						Integration of the National HIV Control Program with the Ghanaian National Health System					
	Stewardship and Governance	Financing	Planning	Service Delivery	Monitoring and Evaluation	Demand Generation	Stewardship and Governance	Financing	Planning	Service Delivery	Monitoring and Evaluation	Demand Generation
HIV	M	M	M	H	H	M	H	H	H	H	M	H

High: The large majority of elements are fully integrated.

Moderate: Most elements share common strategies, policies, or activities, or there is a mixture of integrated and nonintegrated elements.

Low: There is interaction between some elements but no coordinated activities.

None: The large majority of elements have no integration.

In this Table, the national disease program for HIV refers primarily to the government health response led by the NACP, but it also takes into account the functioning of the multisectoral Ghana AIDS Commission.

Governmental contribution to health increased by 55% in absolute terms from 2003 to 2006 (to 35% of total health expenditure), largely due to increased revenue for the National Health Insurance Scheme, earmarked value-added taxes and premiums. There has been wide year-to-year variation in the proportion of overall government expenditure allocated to health—8.7% of government expenditure in 2003, 6.7% in 2004, 10.0% in 2005, and 6.6% in 2006. As nearly 90% of government spending goes toward wages and benefits, programs depend on external resources for service delivery and capital investment.

External funding has also increased, chiefly due to growing Global Fund and bilateral support. However, much of this is earmarked for specific activities, restricting the regional and health directorates' flexibility in planning and implementing interventions. For example, only a limited proportion of Global Fund support is routed through regional and district accounts for the NACP, as the national office manages most of the funding. Stakeholders interviewed all agreed that Global Fund financing has enabled a major expansion of essential interventions, including access to ART. Some indicated that this expansion has led to the government to allocate resources to other elements of the health system, such as reproductive and child health. Stakeholders also expressed concern about the government's ability to sustain, plan, and finance disease program activities in the absence of Global Fund support.

As part of the sector-wide approach, the MOH jointly develops with partners both 5-year and annual programs of work to coordinate funding, implementation, and evaluation. Planning is both a top-down and bottom-up process. Each year, the MOH develops national health priorities and budget ceilings for each program area, from which districts prepare annual plans (eventually consolidated at the national level), and the annual health sector program of work is then presented to key stakeholders. Although individual national disease programs prepare work plans for each respective disease, these plans may not align with the overall work. For example, the annual and 5-year strategic plans prepared by the Ghana AIDS Commission rarely align with the plans developed by the health sector.

Although all Global Fund grant proposals are in line with national strategies, the periodic nature of Global Fund financing, which is based on "rounds" when countries are invited to apply for funding, hinders alignment with national planning cycles. Furthermore, as funding is dependent on proposals' success, fluctuations in financing from year to year influence activities' scale, as in 2007 when NACP spent US $52 million and 2008 when expenditures totaled US $38 million.

Service Delivery

Like officials in charge of other national disease programs, those heading the NACP have consciously used the existing service delivery system to rollout interventions to avoid creating parallel structures. Respondents felt that this comprehensive integration of infrastructure, human resources, and care pathways has benefited patients and providers alike. Moreover, program investments in disease-specific training and facilities encourage frequent referrals to and from other health services. Although the scale-up of HIV services has been impressive in recent years, coverage for specific reproductive and child health interventions and interventions targeting neglected tropical diseases has been less impressive. Informants thought this poor coverage was due either to a lack of funding or to a higher prioritization of other donor-supported programs.

Infrastructure

Global Fund grants to Ghana have financed facility refurbishments and the purchase of equipment such as microscopes and vehicles for field supervision and monitoring—all investments that can be utilized in providing patient care and that have strengthened the health system. The greatest challenge in providing integrated services is the high HIV patient load, which has overwhelmed clinics and laboratories. Expanding delivery of testing and counseling services to the subdistrict level and of

ART services to the district level has made these interventions more accessible although improving collaboration between the HIV and TB programs, but service delivery needs to be further expanded and decentralized.

Human Resources

Global Fund investments have provided financing for health worker training, including international training for key staff. Disease programs for malaria, TB, and AIDS all train health workers to provide HIV services. However, this training policy has led to a training overload, so that, for instance, health workers' involvement in other educational programs delayed their ART training and hence scale-up of that intervention. Respondents felt that it was unfair that national program workers and senior officials in the Ghana Health Service and MOH receive supplemental salary allowances from the Global Fund, yet those who are engaged in implementing the programs did not. (It is worth noting, however, that national policy makers, not the Global Fund, introduced supplemental allowances for staff delivering services).

Procurement

Procurement of HIV supplies has been effectively integrated with the existing procurement system. The disease programs have ensured that every district has an uninterrupted supply of essential HIV, TB, and malaria drugs, a supply that is critical both to successful treatment and to preventing the development of resistance.

Monitoring and Evaluation

In recent years, Ghana has invested in an electronic district-based health information management system, rolled out in 2007. Yet programs for HIV, TB, and malaria have been reluctant to integrate their own information systems with the new district system, reportedly due to a lack of trust and the large number of indicators required by the Global Fund and other donors.

Although Global Fund grants provided funding to improve monitoring and evaluation in Ghanaian health system, the use of existing disease-specific reporting systems or parallel structures has reinforced these disease-specific systems at the expense of the national health information management system. For example, nearly 150 data managers supported by Global Fund HIV grants submit data on ART and treatment of opportunistic infections directly to the NACP. Although this centralized system ensures timely reporting, it may have undermined integration of the data within the established district system and hampered local decision-making. The system is further fragmented by the regional monitoring and evaluation focal points for HIV that submit reports to national coordinators on other outcomes (eg, condom use, health promotion, pharmaceuticals, and non-governmental activities).

National disease programs frequently attempt to fulfill reporting requirements designed to enable comprehensive global epidemiological analysis rather than, for monitoring and evaluation purposes, to enable effective management of programs and the achievement of a high quality of services. In Ghana, the 3 disease programs are beginning to utilize some donor-required indicators to review performance and increase capacity, but such use takes place limited primarily at the national level. Several informants suggested that the NACP conduct regular internal evaluations to ensure transparency and accountability and that as part of the annual health sector review process, the MOH makes a comprehensive review of grants, including the quality and performance of grants. Although respondents highlighted the duplication this review produces, an increase in the use of joint performance indicators, together with a joint review, will help reduce such duplication.

Demand Generation

Health sector reforms in Ghana have greatly improved geographical access to disease control services and increased community involvement. Expansion of the Community Health Planning Services, first established in 1998, has brought basic services much closer to all Ghanaians. The National Health Insurance Scheme, which went into effect in 2006, removed many financial barriers to use of the health services and increased attendance rates at outpatient departments from 0.55 to 0.70 per capita in its first year.

Global Fund support has also enabled the disease programs to pioneer initiatives to increase service uptake, improve treatment adherence, and encourage a more patient-centered approach. These initiatives include programs providing work to people living with HIV. The NACP charges a nominal fee for ART in an effort to increase patient accountability, but the effectiveness of this tactic has been vigorously debated in the country.

A health promotion unit within the Ghana Health Service provides disease programs with technical support for preparing informational and educational materials, but its small size precludes major campaign efforts in the absence of program initiative and donor support. The Global Fund and other donors have enabled the development of campaigns addressing HIV and TB/HIV coinfection, a development welcomed by the respondents, because this support has enabled substantial scale-up of campaigns that emphasize prevention.

Outcomes and Impact of Global Fund Investments

The stakeholders interviewed for this case study agreed unanimously that direct Global Fund support for the HIV program has saved and improved the lives of a vast number of Ghanaians. Investments in infrastructure, human resources, and commodities have enabled interventions to increase exponentially—the number of people accessing HIV testing and counseling services rose from 6700 in 2003 to 30,000 in 2005 and 160,000 in 2007.

Although the impressiveness of the scale-up in key services is indisputable, a huge gap persists between coverage and need. For instance, during September 2007, only an estimated 11% of eligible children and 16% of eligible adults were on ART.

DISCUSSION

Global Fund investments in Ghana represent a substantial portion of the HIV program budget there and have substantially improved the health of Ghanaians, enabling the country to stabilize its HIV epidemic and make progress on the health-related Millennium Development Goals. However, treatment coverage levels remain low, and intense sustained support is needed to expand coverage of HIV prevention, treatment, and care.

Global Fund–supported activities have been well integrated into key health system functions to strengthen them, most notably financing, planning, demand generation, and service delivery (especially human resources development and procurement and infrastructure investments). Yet, with governance and monitoring and evaluation functions, structures parallel to national systems have emerged leading to inefficiencies.

Particular benefits of Global Fund support included the rapid expansion of HIV prevention and treatment efforts; the strengthening of health system infrastructure; support for multisectoral responses; and a focus on achieving targets although maintaining quality.

Some stakeholders interviewed felt that donor influence has skewed national priorities and thus may have led to neglect in other health areas. Other respondents believed that Global Fund support enabled the government to dedicate more resources to other health areas, although sometimes not keeping up with HIV cofinancing commitments. A particular area for improvement cited by respondents is the alignment of grant development, budgeting, and reporting with health sector planning, budgeting, and reporting cycles. The Global Fund–supported programs also need to integrate parallel reporting systems with the district health information system to make it more flexible, reliable, and robust. Finally, informants urged the Global Fund to integrate the Country Coordinating Mechanism into existing donor coordination bodies to facilitate the overall integration of the health sector and to strengthen the role of private and nongovernmental actors.

Ghana presents a good case of a country that has emphasized organizational strengthening within the health system at all levels and where investments in HIV have been used strategically to strengthen health systems. Strong government leadership in health systems strengthening and establishment of national disease control programs for AIDS, TB, and malaria has facilitated integration of Global Fund–supported activities within national programs. The case of Ghana also illustrates that HIV activities supported by the Global Fund and the HIV program interact with health system functions in a complex way, producing a rich mosaic across these functions rather than a binary outcome of integrated versus not integrated. Ghana also illustrates that the narrow debate on integration, which has dominated the discourse on global health, is all but a false dichotomy.

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