Zeroing In: AIDS Donors and Africa's Health Workforce

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Summary

For the past decade global AIDS donors, including three of the largest—the U.S. President's Emergency Plan for AIDS Relief (PEPFAR), the Global Fund to Fight AIDS, Tuberculosis and Malaria (the Global Fund), and the World Bank's Africa Multi-Country HIV/AIDS Program for Africa (the MAP)—have responded to HIV/AIDS in sub-Saharan Africa as an emergency. Financial and programmatic efforts were quick, vertical, and HIV/AIDS specific. To achieve ambitious HIV/AIDS targets, AIDS donors mobilized health workers from national health workforces, most of which were inadequate even before the epidemic, with skilled health workers in short supply. The shortages were the result of weak data for effective planning, fragmentation and poor coordination across the health workforce life-cycle, and inadequate capacity to train and pay health workers.

Ten years later—after billions of dollars in AIDS funding and a massive scale-up of AIDS prevention, treatment, and care programs—the problems persist. AIDS donors should be concerned for two reasons. First, a strong health workforce is necessary to expand and sustain progress on HIV/AIDS outcomes. Second, although AIDS donors have helped improve the health workforce, at least in the short term for AIDS-specific programs, the influx of funding has distorted the health labor market—for example, by drawing away health workers who would otherwise have been treating other diseases, making it harder for people not infected with HIV to obtain care.

The HIV/AIDS epidemic remains serious, but after more than 10 years of a resource-intensive global response, it no longer makes sense to approach it in an ad hoc manner suitable for a sudden emergency. The time has passed for short-term fixes to health workforce shortages. As the largest source of global health resources, AIDS donors must begin to address the long-term problems underlying the shortages and how their efforts affect the health workforce more broadly.

The debate about the role of AIDS donors in health workforce development

Have AIDS donors harmed or strengthened health workforce development in countries with severe shortages? Casual observations suggest that they have done both. Perhaps the question should be whether AIDS donors, given their vast resources and influence, can not only "do no harm" but also help countries solve the problems that result in persistent shortages of skilled health workers? In particular, could AIDS donors play a more positive role if they re-examined their practices in training and hiring health workers?

The broad policy frameworks are in place. PEPFAR, the Global Fund, and the World Bank, recognizing the need to strengthen

AIDS donors have not systematically monitored or reported on their strategies for mobilizing human resources

health systems, have committed to boosting support for workforce development. The U.S. Congress has instructed PEPFAR to train and retain 140,000 health workers in Africa between 2009 and 2013.[1] The Global Fund has created a Health Systems Strengthening grant stream. And the World Bank is working with the GAVI Alliance, the World Health Organization, and the Global Fund on a joint platform for health system strengthening including for national health workforce development. These are laudable efforts, but as with any large and complex undertaking, reality often falls short of intent. The findings and recommendations in this report—which draw heavily on the work of Center for Global Development (CGD) research partners in Mozambique, Uganda, and Zambia—support these promising new policy initiatives with additional insights and practical recommendations for each of the three big AIDS donors.

Study approach

AIDS donors have not systematically monitored or reported on their strategies for mobilizing human resources. Surprisingly, PEPFAR, the Global Fund, and the World Bank do not release basic data on human resources employed for their programs, such as the number of health workers employed for implementation or who pays the workers and how much. Without these basic data it is impossible to analyze how donor financing affects health workforce levels, distribution, and productivity and worker motivation. AIDS donors report data for only a few health workforce development activities, such as training "encounters."[2]

For example, PEPFAR reported to Congress that it provided 2.7 million training encounters in 2008, but there is little analysis of how this training improved health worker competence and productivity. Because of the lack of data specific to AIDS donor–financed activities, the analysis here relies on content analysis of donor plans and reports; interviews with key donor, government, and health facility stakeholders; and secondary data and analysis about workforce trends in Mozambique, Uganda, and Zambia.

For this report local research collaborators in Mozambique, Uganda, and Zambia investigated how AIDS donors train and employ health workers for AIDS programs and how these activities have affected the health workforce. The research teams defined a common set of research questions, reviewed donor and national documents, and interviewed officials in donor agencies, officials within national and local government offices, managers of public sector and private sector health facilities, and health workers. Findings from the three countries were used to develop recommendations for donors. The report was reviewed by health workforce experts and shared with senior officials in the AIDS donor agencies to ensure the accuracy of the information.

Key findings

The research effort led to six key findings:

1. To staff AIDS programs, donors have relied on training existing workers and task-shifting, not on training new health workers

Evidence from cross-country analysis and AIDS donor statements show that donors

1. The U.S. Congress's 2008 reauthorization of PEPFAR mandated training 140,000 new professional health workers. PEPFAR is responding to this mandate by including health workforce development in its five-year strategy to transform into a country-owned and sustainable response. The U.S. government contributions to health workforce development will also be affected by the evolving U.S. Global Health Initiative, which the Obama administration intends to use to coordinate health-related foreign assistance across program areas and agencies, with a greater focus on health programs that have received relatively limited support in the recent past, such as family planning. The administration has included health workforce development, including PEPFAR efforts, as a key cross-cutting issue.

2. Training encounters, as defined in the May 2008 Report to Congress by the U.S. Global AIDS Coordinator on Health Care Worker Training, are large capacity-building activities done in collaboration with the Ministry of Health to guide their investment in strengthening and building the health workforce. Beyond training, these encounters include the development of long-term human resource for health assessments, training plans, strategies, and policies.

have relied more on task-shifting (redistributing tasks from more specialized to less specialized health workers to improve access and quality of services), in-service training, and community health workers than on training new health workers. PEPFAR's report to the U.S. Congress on health care worker training noted that in fiscal year 2008 the United States supported 2.7 million training encounters in 15 focus countries and preservice training for 1,418 professional health workers across all country programs except Ethiopia. AIDS donors have provided some support to preservice education, mainly funding for HIV/AIDS-specific curriculum development, classroom rehabilitation, and scholarships. But there has been no clear reporting on the outcomes of these efforts or on whether the people trained are fully or partially supported by donors.

2. AIDS donors have swamped countries with in-service training programs for HIV/AIDS-specific skills

Donors have focused on in-service training to give existing health workers the skills for HIV/AIDS prevention and treatment activities. A major PEPFAR recipient in Mozambique reported 325,000 training encounters supported by PEPFAR during 2004–09. More than 90 percent of them focused on HIV/AIDS-specific skills, including more than 220,000 in abstinence/be faithful programs and in orphan and vulnerable children programs. While this focus on building skills for HIV/AIDS programs is not surprising—given that HIV/AIDS is PEPFAR's focus—the deluge of HIV-only training raises questions about whether continuing education for the health sector is balanced and coordinated. These questions are particularly pertinent in Mozambique, where the country's 2009 in-service training budget for the entire health sector was just over $1 million and PEPFAR's was more than $3.6 million. In addition, donor-funded, on-the-job training and such incentives as per diems have led to paid absenteeism from health facilities.

3. PEPFAR and the Global Fund have relied on task-shifting to lower level health workers without assuring adequate resources or support

In scaling up HIV/AIDS prevention, treatment, and care programs, AIDS donors—particularly PEPFAR—have allocated prevention, treatment, and care tasks to lower level staff and trained new cadres of project-specific workers (such as health counselors) to fill gaps. In the three study countries task-shifting has reduced the number of doctors required to deliver HIV/AIDS services and improved some dimensions of service quality. But task-shifting has overburdened nurses. Done right, task-shifting can be part of a broader package of reforms for better managing resources to deliver health services. However, doing it right takes large investments to improve training, expand the workforce, reform compensation, and create effective monitoring and quality control mechanisms. These conditions are difficult to meet in already resource-constrained environments.

4. Community health workers are employed as a quick fix without considering their long -term role

In all three study countries the three major AIDS donors support community health workers to carry out a wide range of HIV/AIDS-related services. PEPFAR and the Global Fund supported community health workers as part of their task-shifting strategy, while the MAP invested in community initiatives, some involving community health workers. Despite the importance of community health workers, their role in the health workforce is still not clear, and no career paths have been set for these nontraditional health workers. They are being trained and employed as needed, without reference to national monitoring guidelines or standards. National plans for human resources for health make little mention of these workers, and no clear sense of how community health worker programs will be sustained without long-term donor support.

National plans for human resources for health make little mention of community health workers or how these workers' programs will be sustained without long-term donor support

To help countries develop their health workforce, they should minimize negative effects of AIDS programs on health workforce strengthening and development, maximize AIDS program contributions to health workforce strengthening and development, and expanding the health workforce in the longer term

5. The incentives that AIDS donors offer health workers to achieve HIV/AIDS program targets distort allocations of time and resources to the detriment of other health sector objectives

AIDS donors have introduced massive new resources and opportunities that change the incentives for health workers, altering the dynamics of employment, career paths, and management of the health workforce. For instance, some situations where volunteers get paid more in allowances than nurses get in salaries. Incentives narrowly designed to achieve the goals of AIDS projects may create dynamics ill-suited to a health system that aim to achieve a broader array of health objectives over longer time horizons.

6. AIDS donors pay health workers through short-term special arrangements without addressing long-term constraints on the public and private health workforce

As an emergency response, AIDS donors hired health workers within and outside the public sector on short-term contracts through special arrangements that work around public sector hiring constraints. But this additional capacity depends entirely on continued AIDS donor funding. Donor hiring practices have not addressed the underlying administrative, political, and financial constraints to creating new positions within the public health sector. Nor have they created a sustainable system for new positions in the nongovernment sectors (for profit or not-for-profit). Most of the new positions for HIV/AIDS programs will disappear when the donor projects end, even as the need for HIV/AIDS prevention, treatment, and care services continues.

What can AIDS donors do to help countries develop their health workforce?

Based on these findings we identify key tasks for AIDS donors and country stakeholders to help countries increase their health workforce capacity. Under these tasks we propose several specific recommendations for donors in three categories. First is minimizing negative effects of AIDS programs on health workforce strengthening and development (that is, to "do no harm"). Second is maximizing AIDS program contributions to health workforce strengthening and development without compromising AIDS program objectives. And third is expanding the health workforce in the longer term.[3]

Minimize negative effects of AIDS programs on health workforce strengthening and development

Train health workers as part of the health system, not just for donor-supported projects. Donors have invested in HIV/AIDS specific in-service training that has not matched the continuing education needs of the health system, potentially skewing the skill balance in the health sector, reducing the quality of training, and creating career paths rely on continued vertical program funding (uncertified, project specific, or volunteer cadres). Donors could avoid these pitfalls by better aligning their in-service training efforts with national health strategies and preparing health workers to respond to broader health needs, not just HIV/AIDS. This may require improving national efforts to identify and plan for continuing education needs. AIDS donors could work jointly with the governments to assess and define these needs.

Fully invest in better task allocation for all health outcomes, not just HIV/AIDS programs. To address workforce shortages, AIDS donors redistributed tasks among health workers to improve service access, efficiency, and quality. While this improved HIV/AIDS programs,

3. There are many opportunities for national governments to improve their stewardship of the health workforce and labor market, and some improvements by AIDS donors depend on essential national action. However, AIDS donors' budgets rival national government budgets for the health sector, and they can make a difference in many areas despite (or even to overcome) the limitations of national governments. While the recommendations included in this summary focus on PEPFAR, the Global Fund and the MAP, the body of the report includes recommendations for national governments.

little is known about effects on other health services or outcomes or whether this reduced the cost of service delivery. But some evidence suggests that lower level cadres—to whom tasks are being shifted—have neither the spare capacity to take on additional tasks nor the necessary support structure, resources, and support to take on these tasks, maintain service quality, and attend to their other duties. This raises concerns that task-shifting is premature. Going forward, adequate training, sustainable financing, reconfigured health teams, supervision, and monitoring should accompany task-shifting.[4] In addition, donors should design—and assess the effects of—task reallocation strategies within the broader service constellation rather than focusing only on HIV/AIDS.

Provide performance incentives within a constellation of health service responsibilities, not just to achieve HIV/AIDS program targets. When AIDS donors provide incentives to achieve HIV/AIDS program targets, they cause other health programs to suffer—both from shifting workers to HIV/AIDS programs and from demoralizing health staff in the other programs. AIDS donors could act to reduce the negative effects of disease-specific and project-based incentive schemes:

- PEPFAR could create guidelines to standardize incentives across PEPFAR-funded projects and to make them comparable to incentives offered to health workers who work on non-HIV health programs. PEPFAR may provide additional support to national incentive schemes (as it has started to do in Zambia) to smooth incentive payments for all health workers. The new integrated health service delivery approach under the U.S. Global Health Initiative should make this more feasible.
- The Global Fund could support evidence-based national incentive schemes and policies for Global Fund grants that limit the potential for incentives to distort the use of scarce human resources. Of the three AIDS donors, the Global Fund is best positioned to fund national incentive schemes to improve health worker performance and retention in underserved areas. For example, the Global Fund could increase funding to the national retention scheme in Zambia, in place since 2003. In Mozambique the Global Fund has been moving away from supporting the health sector common fund, diminishing its support for the national incentive scheme. The Global Fund could encourage Mozambique to include funding for the incentive scheme as part of the national strategy application process. In Uganda the Global Fund's technical support partners may want to develop guidelines for improving the use of external financing for incentives.
- The World Bank could ensure that lessons from its pilots on results-based financing are applicable to the planning and regulatory roles of national governments and other national actors responsible for coordinating incentives across the health workforce. The World Bank is piloting results-based financing[5] to learn how to use it to improve health outcomes in developing countries. For health workforce planners in Mozambique, Uganda, and Zambia to apply these lessons, analysis of the pilots needs to include how the innovations would work within different incentive structures. For instance, would the lessons and advice be the same for the very centralized civil service structure in Mozambique and for the very decentralized and diverse employment environment in Uganda?

When AIDS donors provide incentives to achieve HIV/AIDS program targets, they cause other health programs to suffer—both from shifting workers to HIV/AIDS programs and from demoralizing health staff in the other programs

Maximize AIDS program contributions to health workforce strengthening and development

Pay to train new doctors and nurses. Evidence shows that donors focus more on using

4. WHO, UNAIDS, PEPFAR 2008; Lehmann and others 2009.

5. The World Bank uses "results-based financing" as an umbrella term to cover "output-based aid, provider payment incentives, performance-based inter-fiscal transfers, and incentives to communities and households to adopt health-promoting behaviors" (http://go.worldbank.org/DM8JXP4320, accesses on Nov 17, 2009).

The reluctance to tackle long-term staffing issues is a serious problem now that external health financing is on a par with government health financing

task-shifting, in-service training, and training community health workers than on training new professional health workers to address the shortage and reach targets. But increasing the number of trained clinical health workers is a critical in solving the health workforce shortage. In Mozambique, Uganda, and Zambia more professional health workers will be required for further progress in the fight against HIV/AIDS. Going forward, national governments and donors should invest in preservice education and jointly improve the supply and competency of health workers entering the workforce. All three countries address preservice education in their national health workforce plans, but implementation is problematic due to fragmented responsibilities and limited finances. While all AIDS donors can collectively help address both problems by providing greater financing for national health workforce plans, PEPFAR can do more to provide technical assistance to countries for health workforce planning and management.

Define the role of community health workers as tasks are shifted downward. AIDS donors have relied heavily on creating and deploying community health workers for important activities such as home-based care, testing, and counseling. But community health workers—usually compensated by small donor stipends and incentives—are not a professionally recognized cadre in many national government and donor strategies. Once donor funding subsides, it is unclear how this group will be sustained. To start, AIDS donors should document the community health workers employed for their projects and standardize these workers' skills and compensation within each country, ideally following national standards and plans. That may be a long-term project, contingent on ministries of health formalizing the role, compensation, and career pathways of community health workers—perhaps setting up a national framework that would create a bottom-up supply of health workers from the communities they serve, who would be trained professionals, recognized and paid for their skills. While AIDS donors cannot do this for the government, as the largest employers of community health workers, they can play a critical role in facilitating or inhibiting progress.

Expand the health workforce in the longer term

Move beyond short-term hiring arrangements for a long-term disease. HIV/AIDS treatment has created a need for long-term chronic disease management. However, AIDS donors hire health workers on short-term special arrangements because of administrative, political, and financial constraints to creating and supporting new health workers beyond the life of individual projects. Donors are reluctant to expand the public sector health workforce for obvious reasons: wages are a long-term commitment (much like antiretroviral therapy itself), and increasing the civil service wage bill is politically challenging for most governments that are unclear about the source of long-term financing of health worker salaries.

The reluctance to tackle long-term staffing issues is a serious problem now that external health financing is on a par with government health financing. Donor restrictions on salaries and the resulting ad hoc piecemeal workarounds are challenging for the people who organize and deliver need-based services. For instance, many facility managers find they have more money to hire short-term consultants than to pay for nurses or other critical cadres of health workers desperately needed to create a bigger, more stable workforce. Ultimately, predictable longer term donor financing and greater government stewardship over the health sector would allow a country to develop and act on a long-term plan for hiring and retaining new health workers. Despite the challenges surrounding this seemingly intractable dilemma, AIDS donors should consider some strategies going forward:

- There is broad consensus that countries need predictable financing to pay for an expanded health workforce. While some funding can come from larger government

health budgets, external financing will be needed. Pooled funding mechanisms—across program areas and donors—could help stabilize donor funding for health over the long term, allowing countries to increase the number of skilled workers, coordinate health workforce strengthening and development efforts across donors and program areas, and reduce dependence on any single donor for recurrent costs.

- Pooled financing and government-led national planning should not mean a narrow focus on the public sector workforce. Active collaboration among governments, donors, and the private sector (for profit and not for profit) would increase the health workforce's capacity and reach more people. In Zambia faith-based facilities, well integrated into the national health system, reach many underserved areas that government services cannot. This cooperative spirit needs to expand to other private providers. In Uganda much more cooperation and constructive government stewardship are needed across public, private, and mission-based providers. Recognizing this constraint to health-system development, CGD has explored ways for donors and technical agencies to support successful public-private interactions. The CGD working group's report[6] proposes an advisory facility for governments to partner with the private sector in order to expand access to high-priority health services to underserved populations.

Mozambique, Uganda, and Zambia have strikingly unambitious plans for health workforce strengthening and development, despite the high death and illness burdens they face. The AIDS donors that provide a significant share of health funding in these countries are strangely absent from the resource projections for country health workforce plans. Now is the right time for AIDS donors to get on board and ensure that their vast resources are contributing—with full effect—to long-term health workforce development. Donors need to further strengthen these national plans—by connecting national HIV/AIDS strategies with national human resources for health strategies and by planning their health workforce inputs in support of these national plans—and establish information systems for effective health workforce planning and management.

6. Private Sector Advisory Facility Working Group 2009.

About this report

Strengthening weak health systems in Africa dominates global health discussions, particularly for global health initiatives focused on HIV/AIDS. A major concern is that many countries lack the health systems to achieve the goals in their national health strategies or even the subset of health Millennium Development Goal (MDG) targets. According to the ministries of health in Mozambique, Uganda, and Zambia, the shortage of skilled health workers is a major constraint to delivering the primary healthcare packages needed to achieve their national health priorities.[1] MDG progress reports for Mozambique, Uganda, and Zambia identify inadequate human resources as a major limitation in reducing under-five mortality and maternal mortality.[2] Recent studies suggest that large global health initiatives massively scaled up their programs without monitoring the effects on overall human resources for health.[3] Though the current view—articulated in the Venice Statement on Maximizing Positive Synergies between Health Systems and Global Health Initiatives—is that HIV/AIDS funding has had a positive effect on the health workforce, there is limited evidence to support this claim or to predict long-term impacts.[4]

Problems within the health workforce have created long-standing deficiencies in health systems in many sub-Saharan countries. Health systems do not have enough health workers with the skills or capacity to achieve priority health outcomes. Governments and donors recognize this deficit as a persistent constraint to progress in the health sector despite multiple efforts to understand and address it over the past decade.[5] Some of the most heated discussions have focused on how disease-specific global health initiatives alleviate or perpetuate these conditions.

The massive increases in funding for HIV/AIDS programs over a short period have mobilized thousands of health workers. In the last seven years, three large and influential AIDS donors—the U.S. President's Emergency Plan for AIDS Relief (PEPFAR), the Global Fund to Fight AIDS, Tuberculosis and Malaria (the Global Fund), and the World Bank's Multi-Country HIV/AIDS Program for Africa (the MAP)—have implemented strategies to achieve better health outcomes related to HIV/AIDS

1. Mozambique Ministry of Health 2008; Uganda Ministry of Health 2005b, 2007b; Zambia Ministry of Health 2005a,b.

2. UNDP 2007; Mozambique 2008; Zambia 2008.

3. Oomman, Bernstein, and Rosenzweig 2008; WHO Maximizing Positive Synergies Collaborative Group 2009.

4. WHO 2009; WHO Maximizing Positive Synergies Collaborative Group 2009.

5. Joint Learning Initiative 2004; USAID 2003; WHO 2006.

in the midst of the health workforce crises. But this rapid response has not been without problems. For instance, a joint review of the Zambian health sector rollout of antiretroviral treatment recognized the scale-up as a great success, largely due to U.S. government support, but also noted some concerns. PEPFAR systems have not been aligned with government systems in Zambia, and its single-focus programs can increase workloads for health workers.[6]

Limited systematic monitoring and reporting of the strategies for mobilizing human resources for the AIDS response mean that developing countries and the global health community have been unable to answer critical questions: How do these efforts affect the overall health workforce? Are donor measures only short-term solutions to achieve project objectives or longer term steps to mitigate the shortage of health workers? And are the benefits of HIV/AIDS donor inputs realized by the health workforce at large or only by those working on HIV/AIDS programs?

A previous HIV/AIDS Monitor Report advised AIDS donors to seize the opportunity to strengthen health systems.[7] That report examined major AIDS funders' approaches to the health workforce and identified the need for AIDS donors to pay more attention to, and to improve their overall effect on, national health systems. This report examines new evidence about PEPFAR, the Global Fund, and the MAP and their strategies to mobilize human resources for AIDS programs in Mozambique, Uganda, and Zambia, countries with severe health workforce shortages. The report describes how AIDS donors can support national health workforce strengthening and development in these three countries.

The findings are not necessarily generalizable to other countries or contexts. The health workforce development efforts of AIDS donors may differ in other countries. Plans and resource allocations for these efforts need to be analyzed and designed country by country. That said, the lessons that emerge from this report can still inform AIDS donors' health workforce strengthening and development activities in other countries facing similar issues.

Document reviews and interviews were conducted in the three countries. Key officials in the donors' country-based offices, host country governments, recipient and subrecipient organizations, and health facilities were interviewed for their specialized knowledge about how donor policies and programs have dealt with the health workforce and what the implications have been. Details of the study methodology are in annex A.

Severe lack of data on donor inputs and on the health workforce in these countries prevented an assessment of the scale of donor efforts or their effects on supply and demand in the health workforce. The lack of usable data is itself an important finding. Without adequate information on donor inputs and the health workforce, the investigation reviewed donor policies and strategies using existing research, official documents, and key informant perspectives. The report discusses six practical tasks for donors and country governments as part of a long-term plan to improve health workforce shortages and cause the least harm to health systems. Although the key informant perspectives provide insightful assessments of AIDS donors' past efforts, they cannot be considered conclusive evidence.

At a time of rapidly rising disease-specific health funding over the past 10 years, African governments, global health experts, and advocates have turned their attention to strengthening health systems. This has triggered a review of health system strengthening activities by AIDS donors. New commitments have been announced, such as the International Health Partnership and Related Initiatives (IHP+),[8] the Joint Funding Platform for Health System Strengthening,[9] and PEPFAR's target of train-

6. Independent Review Team 2008, p. 141, quoted in Campbell and Caffrey 2009, p. 39.

7. Oomman, Bernstein, and Rosenzweig 2008.

8. Taskforce on Innovative International Financing for Health Systems 2009a.

9. Meeting notes, presentations, and other literature on progress on the Joint Funding Platform for Health Systems Strengthening can be found at: http://go.worldbank.org/GARPCRAEV0.

ing 140,000 new health workers in Africa over five years.[10] And new language in the plans of governments and global health initiatives suggests that donors cannot expect successful outcomes unless they address the health system issues head on.

This report focuses on AIDS donors and on how they can better use their funding to address health workforce issues. It does comprehensively assess all health workforce development efforts or recommend an exhaustive list of ways donors and governments can strengthen health systems. This focus is not to be interpreted to mean that AIDS donors are solely responsible for health workforce development or that they are the only actors. Recommendations are made in the context of broader health workforce strengthening and development, including the global discussions of human resources for health that culminated in the Kampala Declaration and Global Agenda for Action (box 1),[11] and with reference to broader health systems strengthening efforts, such as the International Health Partnership and Related Initiatives country compacts.

The first two chapters of the report set the stage for these recommendations. Chapter 1 is a brief overview of the human resources for health crises that persist in Mozambique, Uganda, and Zambia. Chapter 2 examines AIDS donors' evolving approaches to human resources for health, given the ongoing shortages of skilled workers.

Building on this background, chapter 3 discusses how particular approaches to health workforce strengthening and development have played out in practice in Mozambique, Uganda, and Zambia. The discussion is organized around six "tasks"—areas for AIDS donors and governments to improve their health workforce development activities. Each task is discussed in the context of the three countries, and recommendations are developed for AIDS donors and country governments. These recommendations are meant to inform the ongoing deliberations of AIDS donors as they work out the implementation details of their health system strengthening commitments.

- Task 1 urges donors to invest in training new health workers.
- Task 2 suggests that donors and governments pursue a coordinated program of continuing professional education for health workers, focused on competencies rather than training outputs.
- Task 3 reminds donors and governments that task-shifting (redistributing tasks across levels of health workers to improve service access and quality) requires substantial investment, at least in the short term, and that task allocations for HIV/AIDS services must be coordinated with task allocations for other health service responsibilities.
- Task 4 pushes for governments and AIDS donors to define the role and future of

10. PEPFAR 2009c.

11. WHO 2008.

Box 1 The Kampala Declaration and Agenda for Global Action of Human Resources for Health

In March 2008 the Global Health Workforce Alliance held the first Global Forum on Human Resources for Health in Kampala, Uganda. The 1,500 participants shared experiences about what has and has not worked in the response to the health worker crisis. The resulting Kampala Declaration and Agenda for Global Action defined the consensus position on the progress needed to address shortages of skilled health workers. The Agenda for Global Action lays out a comprehensive list of coordinated actions—organized around evidence-based national strategies and ideas for a platform for mutual accountability, based primarily on better information gathering and sharing:

1. Government leadership of efforts to address the crisis in human resources for health.
2. Harmonization and alignment of all development partners.
3. Government-defined scale-up.
4. Accreditation and regulatory systems.
5. Management and leadership capacity.
6. Enabling and safe work environments.
7. Responsibly managed international migration.
8. Training and recruitment of more health workers on a global scale.
9. Relaxation of macroeconomic constraints.
10. Dependable financing from development partners.
11. Reliable information systems.
12. The Global Health Workforce Alliance to monitor progress and convene a second forum in 2010.

Source: WHO 2008.

community health workers, particularly as tasks are increasingly being shifted down to them.

- Task 5 appeals for a more rational and effective national approach to incentives to eliminate unintended distortions and contradictory, conflicting, or counterproductive efforts.
- Task 6 calls for AIDS donors to move beyond short-term staffing and for governments to find ways to use donor financing to pay for the needed long-term growth of the health workforce.

The report argues that as AIDS donors increase their inputs into strengthening a country's weak health workforce, they need to watch the long-term, systemic effects of their efforts and move away from claiming success in temporary and disease-specific solutions.

1 Key dimensions of the health workforce crisis in Mozambique, Uganda, and Zambia

Mozambique, Uganda, and Zambia have severe health workforce crises that go well beyond shortages of trained health workers. Their governments and health partners have limited basic information for planning and managing the health workforce; the distribution of health workers and mix of skills available are severely imbalanced; and a general lack of financing, weak planning and management of health workers, and dysfunctional and often unsafe work environments prevail.[1] These conditions—acknowledged by all actors in almost every plan, report, and evaluation (see box 1.1 for some illustrative quotations from interviews conducted for this study)—severely impede the achievement of national health goals in these countries, including those for HIV/AIDS. Several critical dimensions of these health workforce crises are important to consider as the U.S. President's Emergency Plan for AIDS Relief (PEPFAR), the Global Fund to Fight AIDS, Tuberculosis and Malaria, and the World Bank's Multi-Country HIV/AIDS Program for Africa attempt to strengthen health systems.

Lack of information for effective planning

Despite many efforts in recent years to improve human resources information systems, data on the health workforce remain grossly inadequate in Uganda, Zambia, and to a lesser extent Mozambique. Consistent and reliable information is needed so that planning, management, and investments for further health workforce strengthening and development can be assessed for effectiveness, efficiency, and equity.

In Uganda the health workforce is spread across public sector, mission-based, and private for-profit facilities. The last attempts to count the entire health workforce were the 2002 household census and a 2003 health facility inventory by the Ministry of Health. The lack of new national counts since 2003 makes it impossible to construct an accurate assessment of national health workforce capacity or trends. Other estimates have been attempted, some drawing on the same data,[2] some looking only at public sector payroll data,[3] and one looking at mission-based facilities.[4] Data on enrollments, capacity, and training costs seem to have been collected as one-off exercises to inform the health workforce strategic plan.[5] Uganda's draft *Health Information System Strategic Plan 2009/10–20013/14* states that "at all levels resources [for health information systems] are simply inadequate."[6] The

1. USAID 2003; Joint Learning Initiative 2004; WHO 2006; Mozambique Ministry of Health 2008; Uganda Ministry of Health 2007b; Zambia Ministry of Health 2005a; GHWA 2008; Schatz 2008.

2. Uganda Ministry of Health 2003, 2004, 2005a, 2006, 2007a, 2008.

3. Uganda Ministry of Health 2005b.

4. UCMB, UPMB, and UMMB 2007.

5. Uganda Ministry of Health 2007b.

6. Uganda Ministry of Health 2009, p. 14.

plan also states that the parallel information systems set up by some development partners exacerbate the problems.[7]

The strategic plan indicates that two parts of a health resources information system are currently being piloted, one to track graduates of public health training institutions and one to track human resources for health in the public sector. The plan is to have all district service managers trained on the system by 2012 and to have a mapping of all human resources for health by 2013.[8] This is a start, but a good portion of training and employment happens outside the public sector, so these efforts will provide only a partial picture of the health workforce. The government also plans regular health facility surveys and mapping, which may provide a more complete picture of the entire facility-based workforce. However, this would still leave out workers not based in facilities, such as community health workers and traditional providers.

In Zambia, Ministry of Health data cover only the public sector and mission-based facilities (which are part of the government referral network), leaving out nongovernmental organizations (NGOs) and the private sector. The data are considered unreliable because a decentralized management system reduces the effectiveness of public recordkeeping and data collection.[9] The Zambian Human Resources for Health Strategic Plan states that "data for employees in the government sector and mission run have been drawn from several different sources as there is no one single source providing this data."[10] The team preparing the 2008 health sector midterm review identified 11 data sources and datasets for the health workforce for 2005–08[11] and found the Personnel Management and Establishment Control system to be the most complete source of data on the public sector workforce. However, data input is not standardized, the system does not track the number of people recruited,[12] and the payroll is haunted by ghost workers (workers who remain on the payroll after they have left their post). Asked about staffing levels, a key informant from the Ministry of Health remonstrated:

> . . . until you've cleaned up the system, got rid of those ghosts hanging around, people who just don't come to work . . . then you can say if I've got this, then I need that. But at the moment you can't pick it up from the data system and payroll because the inputting is so nonstandardized.

Because the public sector dominates the health workforce in Mozambique, the public sector personnel information system provides a useful source of basic information about the health workforce. The government and its partners put

Box 1.1 Country strategies and documents outline poor health workforce conditions

"Unless corrective action is taken, the health workforce now and in the future will constitute a main constraint to delivering the Uganda minimum Health Care Package equitably to all" (Uganda Ministry of Health 2007b).

"The extent of the crisis is such that many Rural Health Centers have no staff or are staffed by untrained personnel, and new facilities have been opened without additional staff to run them. Hospital wards are grossly understaffed, with dozens of patients attended by one nurse" (Zambia Ministry of Health 2005b).

"At the level of [human resources for health] management, the excessive bureaucracy—as well as the complexity of health workers' careers, lack of information, low salaries, lack of incentives and other instruments, and incompetent staff—results in a situation in which the reality is unknown, there are bureaucratic delays, managers lack the capacity to manage the employee's career, and staff lack motivation" (Mozambique Ministry of Health 2008).

"The Zambian public health sector is operating at roughly 50 percent of the workforce required to deliver basic health services. . . . At the facility level, shortages are most acute in Rural Health Centres (RHCs), where the average vacancy rate among clinical posts is 71.5 percent. . . . Many RHCs are operating without any professional staff, and more than 50 percent have only one qualified staff member" (Zambia Country Coordinating Mechanism 2008).

7. Uganda Ministry of Health 2009.
8. Uganda Ministry of Health 2009.
9. Mwamba-Shalumba and others 2009.
10. Zambia Ministry of Health 2005a.
11. Independent Review Team 2008.
12. Campbell and Caffrey 2009, based on the Independent Review Team 2008.

In Mozambique, Uganda, and Zambia responsibility for human resources for health—training, recruitment, hiring, deployment, and pay—are distributed across multiple ministries and government and nongovernment agencies

this information to use for the 2008–15 national health workforce strategy. But weaknesses and gaps persist in accuracy and coverage of such issues as staff attrition and training.[13] Thus data limitations and weak human resources information systems mean that planning and management decisions are not based on accurate data on human resources.[14]

Weak capacity and fragmentation across ministries in human resources decisionmaking

In all three countries responsibility for human resources for health—training, recruitment, hiring, deployment, and pay—are distributed across multiple ministries and government and nongovernment agencies. While this system comes with some built-in checks and balances—preventing the sector from hiring more health workers than can feasibly be put on salary, for example—weak coordination makes planning and managing more difficult and less effective. It also makes it increasingly problematic to identify or project health workforce needs because of inadequate knowledge about current staff. Governments and development partners have tried to address these challenges by improving the capacity for planning, management, and coordination of health workforce functions, but important challenges persist.

Weak coordination is evident in Uganda, where management responsibilities for human resources are scattered widely. The Ministry of Finance sets the wage bill, the Ministry of Health tracks and monitors health workforce needs, and the Ministry of Public Services advertises and recruits health workers.[15] As a key informant from the Ministry of Health explains, attempting to set policy, such as on wages, proves difficult in this system:

> Coordination among government itself is too complex. We tried to have the [human resources for health] working group . . . [but the] Public Service Commission would not agree. If it agrees, [Ministry of] Finance would not, then the [workers] unions, the [professional] councils. You remember the salary increase for doctors! . . . It took 2–3 years to be paid even after a presidential directive. The problem is sometimes the leadership at the ministry; they are not consistent and committed.

The situation is similar in Zambia, where the Ministry of Health identifies the number of new health workers required in a given year based on needs estimates and requests from the districts. The Ministry of Finance evaluates the requests based on the set wage bill. The Cabinet Office approves all final recruitment numbers. As in Uganda, the diffusion of management responsibilities can weaken national human resources development. One national-level key informant explains potential roadblocks in recruitment:

> . . . what has been happening is that there has been a target in every year's budget that at least 1,700, 1,900 health workers are recruited every year. But I think the difficulties are that, even as you are recruiting in the health sector you need to have the treasury authority from Ministry of Finance and you also need to have a cabinet authority from the Cabinet Office, and you cannot recruit without these two authorities. You may have one, but it may not be possible, so . . . sometimes the posts are empty. And also inadequate funding from the Ministry of Finance . . . sometimes they hamper progress in implementing some of the strategies, especially in terms of recruitment.

In Mozambique the health workforce is almost fully supported by the public sector. Health workforce management and development policy objectives—dispersed among several policy documents, including the Public

13. Campbell and Stillwell 2008.

14. Chankova and Sulzbach 2006.

15. Ssengooba and others 2009.

Sector Reform Strategy, the Action Plan for the Reduction of Absolute Poverty Program, and the National Health Sector Strategic Plan—guided development of the *National Plan for Human Resources for Health Development*.[16] The health workforce in Mozambique is heavily skewed toward lower level cadres with little training. Less than a quarter of health workers have completed secondary school, and half are support staff (janitors, drivers, and so on), a pattern that has changed little over the past decade. The Ministry of Health plans to offset the imbalance by focusing on the production of upper and mid-level cadres. However, these plans run counter to the focus of AIDS donors, which have relied on the development of lower level cadres to facilitate the rapid, and less expensive scale-up of treatment programs.

AIDS donors, with their comparatively large resources, have also influenced decisions about health workforce development in the three countries. Because of such fragmentation, additional resources are not the only thing needed to develop the health workforce: cross-agency buy-in to the health workforce plan and coordination are also needed.

Inadequate capacity to produce health workers

Global health experts, advocates, officials of global health initiatives, and the national governments of Mozambique, Uganda, and Zambia recognize the enormous need to expand the professional health workforce and to improve their training so that countries have the best mix of health workers they can afford.[17] But the quality of training and capacity of training institutions remain low. All three countries lack the capacity to expand and improve tertiary and technical education to turn out more and better prepared health workers. Again, responsibility is spread across ministries.

In Mozambique responsibility for training doctors falls under the Ministry of Education. All other health professions are trained in institutions run by the Ministry of Health. Provincial health directorates manage these training institutions through three-year plans intended to reflect the priorities in the national health workforce development plan prepared by the Ministry of Health with the input of major health donors. An assessment of the management and administration of training institutions by the Ministry of Health found shortages of qualified staff and full-time teachers and a lack of understanding of the division of responsibilities between the national and provincial levels for managing training institutions.[18] Provincial health directorates were doing little to improve the quality of the institutions, and they were not up to the task of coordinating the absorption of trained staff into the public system.

Zambia's *Human Resources for Health Strategic Plan* attributes imbalances in skill mix to poor training quality, inadequate training facilities, shortages of trainers, staff absences, and mismatch between skills and health sector needs.[19] Training is primarily through public institutions. There is only one medical training school in Zambia and only a few nursing and technical training schools. Most nursing schools fall under the Ministry of Health, while all other training institutions are under the Ministry of Education. There is little information on the availability of teaching staff and managers, with almost no mention of them in the strategic plan.

The Zambia Ministry of Health estimates that training institutions can handle about 1,350 students a year. Training program attrition rates for doctors and nurses were estimated at 30 percent in 2004. The Ministry of Education budgets for 100 new doctors a year, but the medical school graduates only 50–60. Other training programs experience a 20–25 percent attrition rate. On average then, Zambia trains

Mozambique, Uganda, and Zambia lack the capacity to expand and improve tertiary and technical education to turn out more and better prepared health workers

16. Mozambique Ministry of Health 2008.

17. WHO 2006; Ooms, Van Damme, and Temmerman 2007; IOM 2006.

18. Mozambique Ministry of Health 2008.

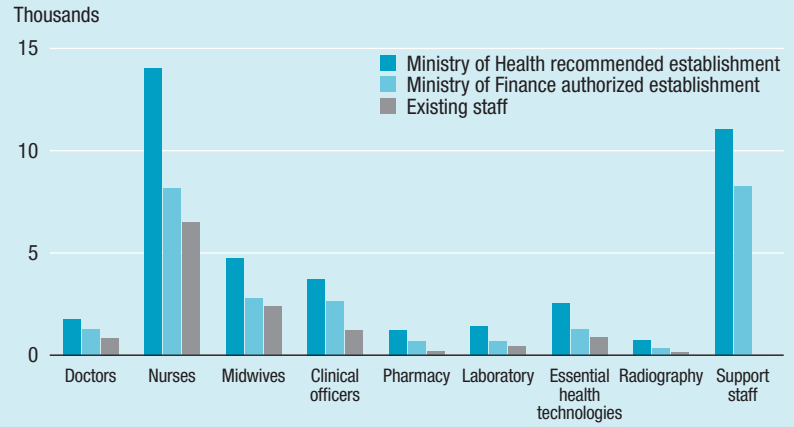
19. Zambia Ministry of Health 2005b.

1,000 health workers a year, far below the annual recruitment targets in the Ministry of Health's 2007 staffing needs estimates.[20] And once health professionals are trained and recruited, it can take a long time to get them onto the payroll. A national-level key informant explains:

> I also know that there are people that are working, and they are still not on the payroll. So, we talk about recruitment and that is often the discussion even in the technical working group. When we say this year we are going to recruit 1,000 health workers, what does that mean? You thought workers out of training institutions. We are actually talking about people that have been working on the side and just being put on the payroll. But since they are being introduced on the payroll, they are considered as a new recruit.

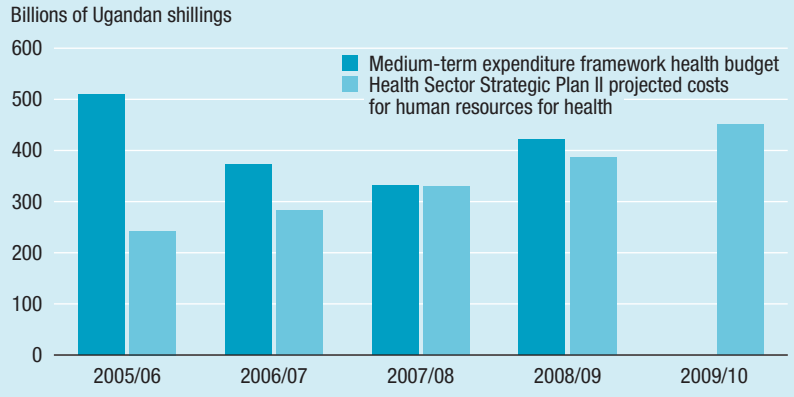
20. Mwamba-Shalumba and others 2009, based on Zambia Ministry of Health 2005a.

Figure 1.1 In Zambia authorized staffing levels by the Ministry of Finance are well below levels recommended by the Ministry of Health—and actual staffing levels are even lower, 2007



Source: Authors' analysis based on data in Mwamba-Shalumba and others (forthcoming) using information from the Ministry of Health's health management information system database.

Figure 1.2 In Uganda health workforce planning increasingly consumes the entire health sector budget



Note: The medium-term expenditure framework is prepared by the Ministry of Financing, Planning, and Economic Development and presents estimates through 2008/09 only, while the Health Sector Strategic Plan is prepared by the Ministry of Health and presents estimates through 2009/10.
Source: Authors' analysis based on data in Uganda Ministry of Health (2007b).

The Zambia *Human Resources for Health Strategic Plan* outlines programmatic and funding options—based on the number of posts and resources needed to recruit and retain staff—to address staffing needs.[21] The plan focuses on staffing only the most critical cadres, since support and administrative staff are already overrecruited. While the Ministry of Health has a sound policy for human resources development, it acknowledges that the plan is poorly funded and that without increased commitments from the government and cooperating partners, human resources targets will not be met.

Inadequate financing to produce new health workers and maintain the health workforce

The tension between ministries of health and ministries of finance are much cited in the debate about public spending on social sectors, including health. Reflecting the tight fiscal constraints in developing countries, all three countries are reported to have heavily revised downward their estimates of health workforce needs. For example, in 2007 the Zambia Ministry of Finance authorized only about 60 percent of the Ministry of Health request (figure 1.1).

In Uganda both the percentage and the amount of funds available for the health sector have been declining. According to the medium-term expenditure framework, the health sector budget fell from 13.7 percent of the national government budget in 2005/06 to 9.6 percent in

21. Zambia Ministry of Health 2005a.

Box 1.2 Some policy options for financing the health workforce under budget constraints

An in-depth analysis of four country case studies (Dominican Republic, Kenya, Rwanda, and Zambia), combined with evidence from other cross-country studies, shows how government wage bill policies affect the amount of resources available for health and the hiring of public sector health workers. It also explores cases of current human resources policies and practices that promote efficient and effective use of health wage bill resources in the public sector.

Addressing fiscal constraints on the health wage bill

Across all four countries there is tension between fiscal constraints and the health sector demands for more resources to hire health workers. Fiscal constraints are the result of grave macroeconomic realities, and the evidence shows that simply increasing the size of the wage bill is actually a weak lever for increasing the size of the workforce. Improving the predictability of the wage bill through longer term budget commitments can help. And in some cases wage restrictions could be relaxed, or more of the wage bill could be devoted to the health sector to increase the health wage bill. But country-specific analysis is needed to assess how effective these measures would be in a given case and what risks were entailed. For example, in many political contexts relaxing restrictions on the health wage bill would lead to calls to increase the wage bill across other sectors.

Improving human resources management policies and practices

Several insights on using existing resources more effectively emerge from the analysis of health workforce management policies and practices across the four countries:

- Strengthening lines of accountability, improving the information base, and expanding capacity within the ministry of health could bring human resources management practices more in line with stated policies.
- Where the ministry of health has autonomy, allowances could be used more strategically, and salary alternatives could be considered to strengthen incentives for good performance.
- Governments could work with international agencies to reduce the volatility and unpredictability of donor assistance, allowing more donor funds for health to be devoted to remuneration of health workers.
- Subject to certain conditions, authority over selected health workforce functions could be transferred to the ministry of health, while retaining the health wage bill within the overall wage bill.
- Key human resources management functions could be transferred from the central level to the local level, in cases where adequate human resources management capacity exists.
- Under certain conditions health workers could be removed from the civil service and the overall wage bill, giving the ministry of health—as opposed to ministries of public service or finance—full control over the size and the use of the health wage bill.

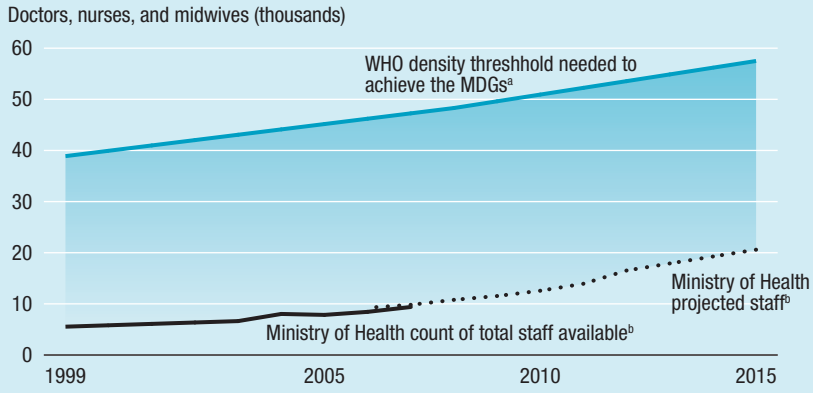
Source: Vujicic, Ohiri, and Sparkes 2009.

2008/09. The projected health workforce costs in the Health Sector Strategic Plan II consume almost the entire projected health sector budget for 2007/08 and 2008/09 (figure 1.2).[22] There are clear contradictions between the health sector budget ceilings, set by the Ministry of Finance, Planning, and Economic Development in pursuit of macroeconomic stability, and national health sector planning, led by the Ministry of Health to address national health needs. This tension between the objectives of the finance and health ministries is not unique to Uganda.[23]

22. Uganda Ministry of Health 2007b.

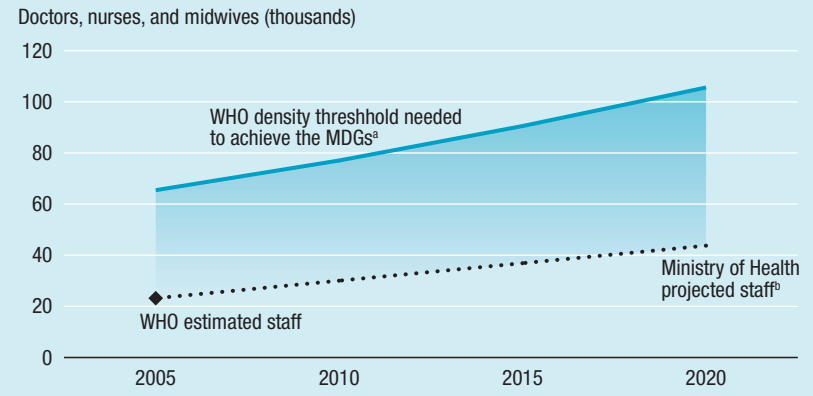
23. Vujicic, Ohiri, and Sparkes 2009.

Figure 1.3 **Mozambique's actual and projected health workforce levels fall well short of World Health Organization estimated minimums needed to achieve the health-related Millennium Development Goals**



a. Based on the World Health Organization's estimate of 2.28 doctors, nurses, and midwives per 1,000 people.
b. Includes all levels of nurses and midwives and all general and specialist doctors.
Source: Authors' analysis based on data from WHO (n.d.); Costa, Durão, and Neves-João (2009), based on data from the Mozambique Personnel Information System and Mozambique (2008).

Figure 1.4 **Uganda's actual and projected health workforce levels fall well short of World Health Organization estimated minimums needed to achieve the health-related Millennium Development Goals**



a. Based on the World Health Organization's estimate of 2.28 doctors, nurses, and midwives per 1,000 people.
b. Includes the public sector health workforce only.
Source: Authors' analysis based on data from WHO (n.d.), Uganda Ministry of Health (2007a), and WHO (2006).

Recent debates have created more heat than light on how restrictive fiscal policies have undermined the public sector health workforce. However, recent research by Vujicic, Ohiri, and Sparkes (2009) shows that tension between countries' fiscal constraints and health sector demands for more health workers reflect grave macroeconomic realities and that increasing the wage bill is a weak lever for increasing the size of the health workforce. Since these fiscal limits will continue for the foreseeable future, the study proposes solutions that make better use of limited resources (box 1.2).[24]

Planned health worker growth rates are too low to achieve national health goals and will remain so for the foreseeable future

The ministries of health in Mozambique, Uganda, and Zambia have laid out health workforce scale-up plans in their human resources for health strategic plans. These plans seek a balance between realism and ambition, using scenario planning to consider various levels of investment for achieving different levels of staffing. These scenarios fall far short of what is needed to achieve many priority health targets.

Simple health worker density projections give a sense of the limitations of these plans. To achieve the health-related Millennium Development Goals, the World Health Organization (WHO) has determined that a country requires at least 2.28 doctors, nurses, and midwives per 1,000 people.[25] All three countries reference this threshold in their national health workforce strategies. Far from being an ideal measure of health system capacity, this general norm for staff density covers up the real depth of the problem and provides no perspective on efficiency, equity, and quality. For that, countries would have to analyze the skill mix and performance level required at each facility to respond to community demand. However, limited data mean that planning in Mozambique, Uganda, and Zambia is far from this evidence-based ideal, and worker density is thus useful as a basic reference point for illustrating the magnitude of the crisis. A country that falls far short of these numbers, even if the workforce is efficient and high performing, would be unable to deliver the basic services required for achieving the health-related Millennium Development Goals, given current technologies and service protocols.

All three countries have health workforce development plans, but none will bring the

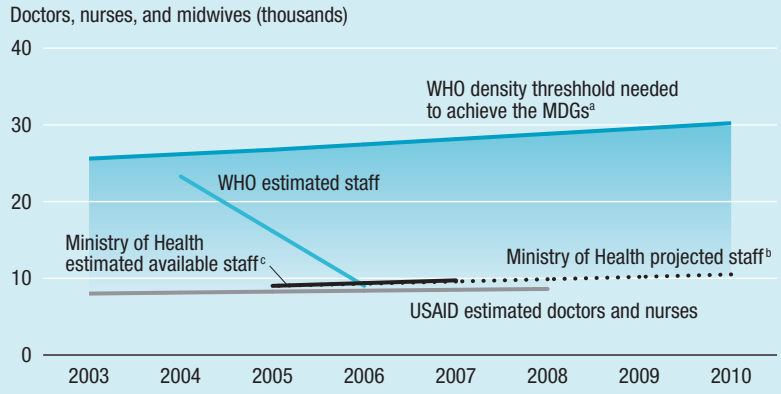
24. Vujicic, Ohiri, and Sparkes 2009.

25. WHO 2006.

workforce close to the WHO minimum threshold in the foreseeable future (figures 1.3–1.5). Mozambique wants to increase the proportion of higher skilled workers, but despite ambitious goals, scale-up plans up to 2015 still barely outpace population growth. In Uganda the focus is on training mid-level cadres, especially nurses and midwives, though the public sector workforce would not increase as fast as population growth. Health workforce growth in nongovernment sectors is not addressed in the national strategy. Zambia has simply applied set growth rates to different cadres. These would maintain the current population to worker density of nurses and midwives through 2010, while densities for other cadres would fall.

Efforts to address these shortfalls must take into account the realities in these countries. The governments are constrained by their budgets in how many workers they can hire and by weak systems that provide inadequate information for planning. Donors are constrained by concerns about dependency and the macroeconomic consequences of making large contributions to recurrent costs.

Figure **1.5** **Zambia's actual and projected health workforce levels fall well short of World Health Organization estimated minimums needed to achieve the health-related Millennium Development Goals**



a. Based on the World Health Organization's estimate of 2.28 doctors, nurses, and midwives per 1,000 people.
b. Refers to public sector and mission workforce only. Projections assume a 3.1 percent growth rate in health cadres.
c. There is a large discrepancy across data sources in the number of nurses and midwives in Zambia. The public sector payroll reports 8,738 nurses and midwives in government and faith-based facilities in 2007, while the Nursing Council reports more than 20,000 in 2007. The Nursing Council data may be inaccurate because they include nurses and midwives who have migrated abroad and nurses working in the private sector. Considering that there were only 92 private health facilities of a total of 1,563 in 2008 (Zambia Ministry of Health 2009) and that many public health workers moonlight in private facilities, the inflated numbers are probably due mostly to inaccuracies and migration. This likely explains why the WHO reported that Zambia had 22,010 nurses and midwives in 2004 and 8,363 in 2006. The 2004 number was used in the World Health Report and so has spilled over to many other global reports and plans.
Source: Authors' analysis based on data obtained from Kombe and others (2005) and Zambia Ministry of Health (2005a).

Target-driven HIV/AIDS planning disconnected from cost-driven planning in the health sector

Health workforce needs estimates and planning for the government and for donor HIV/AIDS programs operate independently from each other and are also disconnected from broader health workforce planning. National health workforce development plans calculate needs based on country-determined staffing standards that reflect resource constraints more than facility needs for delivering needed services. Often the ministry of health decides how many of each type of worker are needed at each facility level to serve the population and then adjusts this number to match available funding for health worker remuneration. In contrast, HIV/AIDS programs often base health worker plans on studies of the human resources needed to achieve specific service delivery targets. For example, in Uganda a facility-based assessment determined how many and what mix of workers were needed to deliver antiretroviral services for 200 patients,[26] and costs for those health workers were then estimated and included in the budget for HIV/AIDS programs. This approach—of establishing staffing levels based on service delivery targets—is not used for the rest of the health sector because it is not considered realistic. This creates a disconnect between national health workforce investments, which are driven by what the country can afford, and health workforce investments for HIV/AIDS programs, which are driven by what the programs need to achieve their targets.

26. Chandler and Musau 2005.

2 Recognizing the health workforce crisis, AIDS donors are re-thinking their health system strengthening activities

This chapter looks at the responses of the three large AIDS donors to the health workforce crisis.

PEPFAR: Moving from an emergency to a sustainable response

The first phase of the U.S. President's Emergency Plan for AIDS Relief (PEPFAR) had no specific goals to permanently increase the health workforce, although the strategy included activities to support local capacity building and human resources development. The first phase encouraged partners to support retention approaches, twinning relationships, community volunteers, and task-shifting (the redistribution of tasks across levels of health workers to improve service access and quality) to deal with known shortages of health workers.[1] Some countries—including Côte d'Ivoire, Ethiopia, Kenya, Nigeria, Tanzania, Uganda, Vietnam, and Zambia—also received support for health information systems and health workforce assessments.[2] Because producing new health workers is expensive and takes years, the first phase encouraged countries to focus on training lower level workers and on task-shifting.[3] Health worker preservice education efforts were minimal, with many countries confused about what training activities PEPFAR would fund.[4]

PEPFAR's vertical program rollout, aimed at meeting ambitious goals,[5] required rapidly mobilizing a massive workforce. Details are scarce, however, about how many people are employed on PEPFAR projects, on what terms, or where these workers came from. To provide a sense of scale, consider that in a 2008 report to Congress PEPFAR noted that it paid the salaries of 105,000 health workers.[6] A 2008 internal review in Zambia found that PEPFAR supported 15,000 clinical, community, and managerial health workers there through salaries (some at government scales and some at nongovernment scales), nonfinancial incentives, and allowances.[7] The entire public sector in Zambia had just over 24,000 health workers in 2007 and 5,239 community health workers and traditional birth attendants.[8] Without knowing the details of PEPFAR recruitment, employment, and payments, it is impossible to understand how this substantial mobilization of health workers has changed the national health workforce.

In addition, even though PEPFAR has tried to harmonize the approaches to health worker salaries of all U.S. government programs, the United States Agency for International Development and the Centers for Disease Control

1. PEPFAR 2006.

2. PEPFAR released an information sheet with examples of these inputs. It is available online at www.pepfar.gov/documents/organization/114524.pdf (accessed October 26, 2009).

3. PEPFAR 2006.

4. Moore and Morrison 2007.

5. Two million people on treatment, infections prevented in 7 million people, and 10 million people in care.

6. The May 2008 Health Care Worker Training report to Congress (PEPFAR 2008) states that the 15 focus countries reported supporting the salaries of 105,000 workers.

7. Campbell and Caffrey 2009.

8. Independent Review Team 2008.

and Prevention have often applied different rules for remuneration, further confusing the already complex task of hiring and retaining health workers.[9] From 2004 to 2008 PEPFAR focused its health workforce development efforts mainly on training existing health workers to deliver HIV/AIDS services in health care facilities, mobilizing and training a cadre of volunteer workers to deliver services in communities, and shifting tasks from high-level to lower level workers whenever possible. PEPFAR also made important contributions in other areas of health workforce strengthening. Along with all other donors funding AIDS treatment, PEPFAR can claim important success in partially stemming health worker attrition and absenteeism due to AIDS-related illness and death by providing treatment services to health workers. In addition, PEPFAR has supported health human resources planning processes at all levels.[10]

PEPFAR's reauthorization in 2008 moves it from an emergency response providing treatment, prevention, and care to a longer term response that includes developing sustainable country-led health systems. The most prominent new objective is to train and retain at least 140,000 new health workers by 2014.[11] These health workers are not specific to HIV/AIDS, and the emphasis is on doctors, nurses, and midwives. To track this expansion, PEPFAR included health workforce indicators in its next generation of indicators, including numbers of health workers and community health workers completing preservice education programs (box 2.1).[12,13] The indicator "number of new health workers who graduated from a preservice education institution within the report period" aims to identify and track the new health workers who are available to enter the workforce each year as a result of full or partial PEPFAR support.

PEPFAR should be applauded for committing to increase the number of graduates. But many critical issues remain unaddressed. First, the threshold for a "predominant quantity of support" is not defined. Does this mean more than half the multiyear cost of training? Second, it is unclear how this new mandate will be funded, which may lead to tradeoffs with other targets.[14] PEPFAR funding for fiscal 2009 and fiscal 2010 remains close to fiscal 2008 levels in many countries, and in some like Uganda it is expected to remain level until fiscal 2013. Third, there is no indication of how PEPFAR plans to retain 140,000 new health workers, as mandated in the reauthorizing legislation. And

Box 2.1 PEPFAR indicators for training health workers: what do they mean?

PEPFAR's (2009d) *Next Generation Indicators Reference Guide* identifies three essential indicators for monitoring preservice education of health workers:

- Number of new health care workers who graduated from a preservice training institution by specific type: doctors, nurses, midwives (PEPFAR output).
- Number of new health care workers who graduated from a preservice training institution (national output).
- Number of community health and paraprofessional workers who successfully completed a preservice training program (PEPFAR output).

Several conclusions can be drawn from these indicators and the details provided in the guidance:

- Community health workers receiving training will be counted separately from the target of training 140,000.
- Retraining (such as a nurse becoming a doctor) will be counted toward the target.
- Graduates will be counted at the point when they have completed a course of at least six months and receive a diploma or certificate from a nationally accredited or recognized institution.
- Direct PEPFAR support can include funding for full or partial tuition, scholarships, payment of teacher salaries, expansion of training facilities, and remuneration to recent graduates to bridge the period between graduations and hiring.
- All graduates from a training program that receives direct full or partial support from PEPFAR will be counted if PEPFAR contributions "comprise the predominant quantity of support."

9. Oomman, Bernstein, and Rosenzweig 2008.

10. Campbell and Caffrey 2009.

11. PEPFAR n.d.

12. PEPFAR 2009c.

13. "The general term 'community health workers' embraces a variety of health agents selected, trained and working in their own communities, performing a diverse range of roles and activities. The main advantages are that community health workers can be trained and deployed relatively quickly (in one year), they understand the community's health needs and they give otherwise unserved communities access to the health system." (GHWA 2008, p. 40)

14. Campbell and Caffrey 2009.

It is difficult to see what incentives PEPFAR recipients have for aligning their efforts at preservice education with national priorities and plans for improving skill mix, distribution, and productivity of heath workers

finally, though the guidance encourages alignment with country priorities, it is difficult to see what incentives recipients have for aligning their efforts at preservice education with national priorities and plans for improving skill mix, distribution, and productivity of heath workers.

To move to a more sustainable approach, PEPFAR introduced Partnership Frameworks in 2008, five-year nonbinding strategic agreements between the U.S. government and the host country government. The frameworks stress strengthening country capacity, ownership, and leadership and increasing financial contributions to achieve a more enduring strategy on HIV/AIDS care, treatment, and prevention.[15] The frameworks emphasize service delivery, policy reform, and coordinated financial commitments, with the expectation that after five years the country will have a stronger, more coordinated commitment to treatment, care, and prevention and a greater capacity to lead the effort. These frameworks are also expected to facilitate greater PEPFAR inputs to support national health system strengthening plans, including the national human resources for health strategies. The frameworks have been in development in Mozambique, Uganda, and Zambia, but as of December 2009, none has been signed.

In the fiscal 2010 guidance for PEFPAR's annual country planning process (called Country Operational Plans), health system strengthening and human resources for health are listed as key technical areas of focus.[16] However, while health system strengthening has its own budget code, human resources for health is considered a cross-cutting program with no associated budget code—these activities are expected to be integrated throughout Country Operational Plans. Nonetheless, implementing agencies in country are expected to estimate the funding attributable to health workforce programming, such as workforce planning, human resources information systems, in-service and preservice education, task-shifting, performance assessment, retention, management and leadership development, strengthening of health profession regulatory bodies and associations, twinning and volunteers, and salary support.

The Global Fund: supporting health system strengthening and moving toward supporting national HIV/AIDS strategies

The recent five-year evaluation of the Global Fund to Fight AIDS, Tuberculosis and Malaria (the Global Fund) finds that "health systems in most developing countries will need to be greatly strengthened if current levels of service are to be significantly expanded."[17] The evaluation notes that weak health systems critically limit the Global Fund's performance potential and that health system strengthening is needed to address these issues.

Global Fund guidelines for health workforce strengthening and development have evolved under the umbrella of its support for health systems strengthening. Year after year, reviews have noted that country proposals for health systems strengthening have been weak. Starting with the first round, the Secretariat encouraged requests for health systems strengthening support, and each year the Technical Review Panel (an independent group of global health experts who recommend which grants to fund) reported to the Secretariat that health systems strengthening elements were fairly weak and that more needed to be done. In response, the Secretariat revised the guidance and gradually became more committed to providing technical support for health systems strengthening. In round 8 this seems to have finally resulted in a handful of countries being approved for more substantial support for health systems strengthening,[18] though the Technical Review Panel still commented that the majority of proposals remained weak (for a history of the evolution of Global Fund

15. PEPFAR 2009d.

16. PEPFAR 2009b.

17. Macro International 2009, p. 21.

18. Funding for this round has not yet started to flow, so there is no evidence on progress beyond these proposals.

guidelines on health systems strengthening, see annex D).[19]

A review of Global Fund proposals reveals that requests have focused mainly on short-term disease-specific interventions or in-service training, rather than on supporting more comprehensive and systemic changes.[20] Most proposals from Mozambique, Uganda, and Zambia have requested support for in-service training (for health professionals and community health workers). Planned recruitment is described mainly at the management level, while plans for hiring service delivery staff are usually limited to project-specific time periods. While the Global Fund has provisions for supporting salaries, countries rarely include requests in their proposals, perhaps because of the difficulty of financing salaries after the project period.[21]

The Global Fund is a demand-driven program. Health workforce development efforts can be funded only if they are requested in proposals and if the Technical Review Panel judges that the request is technically sound and feasible and has the potential for sustainability and impact.[22] Many countries are well aware of their severe health workforce shortages. So why is there a disconnect between this identified need and proposal requests to the Global Fund? Possible reasons include the following:

- With Global Fund guidelines evolving and uncertainty about what items will be approved for funding, Country Coordinating Mechanisms have often played it safe by focusing on programs with direct disease-specific outcomes.
- Many components of health workforce proposals were denied in early rounds (only 10 percent of health systems strengthening components were accepted in round 5), making countries hesitant to apply.
- There may be a tension between demonstrating the feasibility and sustainability of proposed programs and requesting support for capacity development, especially in the case of a long-term need.[23]
- Many countries have only recently developed clear strategies for national health workforce development, for the first time defining clear objectives and activities that can be used in proposals.

In the latest round 9 guidance, the Global Fund again emphasizes its commitment to funding health system strengthening.[24] Following the World Health Organization, the guidance defines "a well-performing health workforce that is responsive, fair and efficient in achieving the best health outcomes possible, given available resources and circumstances" as an essential building block.[25] Health system strengthening can be integrated into disease-specific components or it can be cross-cutting. The round 9 guidelines include interventions to strengthen the production of health workers, such as pre- and in-service training, strengthening of workforce management, appropriate incentives for distribution and retention, and task-shifting.[26]

Also new with round 9, the Global Fund is integrating its National Strategy Application initiative, which encourages countries to base their applications on their costed national strategies. While it is too early to say how this initiative will change Global Fund interventions in a country, the Global Fund hopes the initiative will lead to increased country ownership, a common focus on managing for results and mutual accountability, better alignment with country priorities and timeframes, greater harmonization of funder approaches to financing, and reduced costs.[27]

A review of Global Fund proposals reveals that requests have focused mainly on short-term disease-specific interventions or in-service training, rather than on supporting more comprehensive and systemic changes

19. Global Fund 2008c.
20. Drager, Gedlik, and Dal Poz 2006.
21. Drager, Gedlik, and Dal Poz 2006.
22. Global Fund 2009.
23. The guidelines for Global Fund proposals ask applicants to demonstrate feasibility and sustainability, in addition to providing space for requests for technical assistance and for support in overcoming human resources constraints (for example, see Global Fund 2007a, 2006a, p. vii).
24. Global Fund 2008a.
25. Global Fund 2008a, p. 1.
26. Global Fund 2008a.
27. Global Fund 2008b.

Health workers have not been a focus in the MAP, though it has supported in-service training in HIV/AIDS-specific skills and technical assistance for improving health workforce planning and management

The World Bank: supporting national strategies

The World Bank's Multi-Country HIV/AIDS Program for Africa (MAP) primarily has provided grants to governments for implementing their national HIV/AIDS strategies. Money has been allocated to building national government capacity and to government-administered programs that provide mini-grants to community initiatives for HIV/AIDS services. Health workers have not been a focus, though the MAP has supported in-service training in HIV/AIDS-specific skills and technical assistance for improving health workforce planning and management.

While many MAP projects are ending and most are not being renewed under the MAP (but may be under the health, nutrition, and population portfolio of the World Bank), the Agenda for Action 2007–11 outlines strategic objectives for the five-year period.[28] The agenda recognizes human resources for health as a challenge and sees addressing human resources shortages as essential to the commitment to universal access to health care. Of the agenda's four pillars defining the next generation of support, pillar 3 calls for strengthened national systems to manage health service delivery, finances and procurement, supply chains, human resources, and social services. Other than suggesting donor collaboration to expand health workforce capacity, the agenda does not outline programs and goals for human resources for health.

28. World Bank 2007.

Six tasks for the way forward

3

AIDS donor efforts have failed to solve the quantity, quality, and remuneration challenges of building and managing a health workforce in public and nongovernmental sectors. To identify a way forward for donors as they plan their revised health system strengthening inputs, this report examines evidence from Mozambique, Uganda, and Zambia and the literature to show how AIDS donors can work with country stakeholders to advance some important areas of health workforce strengthening and development. The report organizes its findings and recommendations into six tasks.

Task 1. Pay to train new doctors and nurses

Training new professional health workers via preservice training programs is critical for increasing the capacity of the health workforce. Improving health worker production means training more health workers and, perhaps more important, raising the quality of the education they receive and adapting the mix of skills being taught to the needs of the country.[1] While community health workers are emerging as an important part of the health workforce, higher level cadres are also needed to achieve national health goals. Evidence from the three study countries clearly shows that without substantial investments from governments and donors a crippling shortage of professional health workers will remain for the foreseeable future (see chapter 1). Fragmentation in preservice education has resulted in poor quality standards and misalignment between country health needs and the mix of workers produced.[2] Global health initiatives, including the U.S. President's Emergency Plan for AIDS Relief (PEPFAR), the Global Fund to Fight AIDS, Tuberculosis and Malaria (the Global Fund), and the World Bank's Multi-Country HIV/AIDS Program for Africa (MAP) have a shared stake in improving the quality of professional health worker production.

Experience of the global AIDS donors in the three countries

AIDS donors have tended to shun financing preservice education of professional health care cadres.[3] A collaborative investigation of the health system strengthening efforts of global health initiatives found that PEPFAR, the Global Fund, and the MAP had "not invested substantially in preservice education for the production of new health workers, other than community health workers."[4] Based on a review of Global Fund policies, 35 country proposals from five African countries (Ethiopia, Ghana, Kenya, Malawi, and Tanzania), and Global Fund decisions on proposals over 2002–06, World Health Organization (WHO) health experts found that country proposals focus on short-term health workforce interventions,

1. GHWA 2008.

2. Joint Learning Initiative 2004; WHO 2006; Campbell and Stillwell 2008; Campbell and Caffrey 2009; GHWA 2008.

3. Oomman, Bernstein, and Rosenzweig 2008.

4. WHO Maximizing Positive Synergies Collaborative Group 2009, p. 2143.

Countries may be daunted by requirements to describe how they will sustain health workforce investments once support ends and to demonstrate the direct effect of health workforce investments on patient outcomes

such as in-service training, despite country needs beyond the short term and Global Fund encouragement to address them. Countries may be daunted by requirements to describe how they will sustain health workforce investments once support ends and to demonstrate the direct effect of health workforce investments on patient outcomes—very difficult in the short term.[5] For example, it can take five years to train a nurse, making it difficult to show disease-specific outcomes in a two-year performance framework.

A 2006 Institute of Medicine evaluation reported that PEPFAR had focused on strategies to retain personnel and improve their efficiency for delivering HIV/AIDS services but had not invested much in producing more professional health workers.[6] The report agreed that the expansion and sustainability of PEPFAR hinged on investing in new professional health workers. Training professionals requires long-term investments that are beyond the project horizons of an emergency HIV/AIDS response. The few and sporadic donor-supported activities in this area have focused on developing HIV/AIDS-specific curricula, rehabilitating classrooms, and providing scholarships when specific new professionals are required for a project.

According to PEPFAR's report to Congress, in fiscal 2008 it supported 2.7 million training encounters in its 15 focus countries and preservice training for 7,557 professional health workers in Ethiopia[7] and 1,418 professional health workers across all other country programs.[8] It is difficult to assess the actual quantity or quality of donor inputs from numbers like these. There is no clear reporting of how these efforts increase the number of graduates from training institutes or of whether these health workers are fully or partially supported by PEPFAR.

In Mozambique a key informant from a major PEPFAR implementing partner reported that since 2004 it has provided more than 300,000 in-service training encounters, mostly for HIV/AIDS-specific areas (table 3.1), while supporting only 115 preservice graduates. This illustrates the pattern for PEPFAR across all three countries: in-service training was a core part of program scale-up, but preservice education was not.[9]

The health workforce training record in Mozambique is better for the Global Fund and the MAP. Both provided substantial direct financing for government preservice education programs. The Global Fund did so through a contribution to Mozambique's health sector common fund, although this is about to change.[10] But the contribution was not an explicit element of Mozambique's proposal or part of its performance measures, two core components of the Global Fund model. The MAP provided $2 million to the Mozambique Ministry of Health to support provincial training institutes, resulting in the training of 240 health professionals. This seems to be an anomaly for the MAP, however, as there is no evidence of this type of support in Uganda and Zambia.

Uganda had requested support for preservice education in its round 1 proposal to the Global Fund but was asked to cut the health workforce components from its proposal. This had a chilling effect: Uganda avoided requests for systemic health workforce improvements in future grant rounds.[11] Key informants from AIDS donors and the government report that other donors (the African Medical and Research Foundation, Danida, the European Union, and Irish Aid) have taken the lead on preservice education under the health sectorwide approach.

5. Drager, Gedlik, and Dal Poz 2006.

6. IOM 2006, p. 258.

7. At an average cost of $93 per health worker ($700,000/7,557).

8. PEPFAR 2008.

9. This support included scholarships, HIV/AIDS curriculum development, classroom rehabilitation, and instructor salaries.

10. The Global Fund has shifted away from funding the health sector common fund in Mozambique starting with the round 7 tuberculosis grant (Mozambique Country Coordinating Mechanism 2008, p. 13).

11. Ssengooba and others 2009.

Uganda's *Human Resources for Health Strategic Plan* outlines improvements and investments to be made among government ministries and particular donors,[12] but the evidence is unclear on the quality of training and the adequacy of financing under this arrangement. For example, some key informants reported overenrollment leading to low-quality training,[13] while the strategic plan indicates that most training institutes are underenrolled.[14]

Zambia set plans in its *Human Resources for Health Strategic Plan 2006–2010* to increase the capacity and output of preservice training institutions, supported through the government budget and donors including the Clinton Foundation and contributors to the Ministry of Health basket fund. The Global Fund will begin supporting this as part of its round 8 grant, yet to be disbursed.[15]

According to national human resources for health strategies, planned preservice education will cost Mozambique $100 million over eight years,[16] Uganda more than $180 million over eight years,[17] and Zambia more than $31.7 million over three years.[18] Yet the scaling up of training efforts associated with these funding levels will not make a significant dent in the shortages of skilled health workers.[19] Zambia's *Human Resource for Health Strategic Plan* lays out three options for implementing the strategy, and all call for increasing the number of skilled workers at the same rate as population growth.[20] Similarly, Uganda plans to train and recruit 46,485 new health workers into public and private facilities over 2008–20. Taking into account an estimated loss of 15,648 health workers over the same period, this would result in growth in the health workforce of some 30,000 staff—from almost 67,000 in 2008 to more than 97,000 in 2020. This nearly 50 percent growth over 12 years is nearly the same as Uganda's expected population growth rate. Mozambique's plans are more ambitious: it plans to enroll more than 19,000 students over 2007–13 and to increase the workforce by almost 15,000 across all staff categories. But this will still leave Mozambique with one of the lowest staffing levels in sub-Saharan Africa. Although the total numbers fall short, the human resources for health plans of the three countries would change the geographic distribution and skill mix of the health workforce. These structural changes may improve the equity, quality, and efficiency of the health systems.

Increasing the production of clinical health workers is neither simple nor the entire solution to the health worker shortage. A focus on numbers may compromise quality. Professional health worker cadres need to be complemented by a pipeline of community health workers (see task 4) and strong managers.

Table 3.1 **Number of in-service training encounters in Mozambique supported by the U.S. President's Emergency Plan for AIDS Relief, 2004–09**

Training area	Number trained	Percent of total
Prevention		
Prevention of mother-to-child transmission	6,983	2
Abstinence/be faithful	109,038	33
Medical transmission, blood safety	639	0
Medical transmission, injection safety	8,896	3
Condoms and other prevention activities	18,556	6
Care		
Palliative care, basic health care and support	24,797	8
Palliative care, tuberculosis and HIV	2,731	1
Orphans and vulnerable children	113,718	35
Counseling and testing	4,496	1
Treatment		
HIV/AIDS treatment, antiretroviral drugs	0	0
HIV/AIDS treatment, antiretroviral services	9,125	3
Laboratory infrastructure	1,778	1
Other		
Strategic information	4,535	1
Management and staffing	0	0
Policy analysis and system strengthening	22,094	7
Total	327,386	100

Note: Numbers for 2009 are planned.
Source: Key informant at a U.S. government agency, Maputo.

12. Uganda Ministry of Health 2007b.
13. Ssengooba and others 2009.
14. Uganda Ministry of Health 2007b.
15. Zambia Country Coordinating Mechanism 2008, p. 86.
16. Mozambique Ministry of Health 2008.
17. Uganda Ministry of Health 2007b.
18. Zambia Ministry of Health 2005a.
19. See chapter 1 and GHWA 2008.
20. Zambia Ministry of Health 2005a.

A turnaround appears to be emerging in global support for preservice education. AIDS donors realize that their programs' survival and success require specific inputs to produce additional health workers

Authority over tertiary and technical training programs is distributed across different ministries and professional associations in the three countries. Training institutions require better infrastructure, management, staffing, equipment, and sustainable financing to improve their enrollment levels, teaching, and outputs. Creating more spaces in education programs does not automatically increase enrollment, improve learning, or keep students in programs. In Zambia student attrition rates in nursing programs have been increasing in recent years, despite government plans.[21] In Uganda the scaling up of private sector programs has led to concerns about quality. And once produced, new health workers need to be effectively recruited and employed. Countries have a lot of work to do to get all these parts moving together, and major health sector donors will need to make substantial and coordinated contributions to catalyze and support this effort.

A turnaround appears to be emerging in global support for preservice education. AIDS donors realize that their programs' survival and success require specific inputs to produce additional health workers. The three major AIDS donors are aware that more needs to be done, and they are signaling their support for greater investments in training. Several policy changes reflect this new commitment. PEPFAR has been authorized by Congress to add 140,000 new health workers and has raised its individual country limit on preservice education from $1 million to $6 million per country.[22] The Global Fund has included stronger language encouraging the inclusion of preservice education in country proposals. And the World Bank is moving beyond the disease-specific approach of the MAP to broader support of the health sector.[23] In addition, the collaborative health system strengthening effort of the World Bank, the Global Fund, and the GAVI Alliance signals a move toward increasing the supply of health workers, although without details on how this will be achieved.[24] With these strong commitments in place, the urgent question is how AIDS donors will work with countries to improve the supply of new professional health workers, particularly when budgets seem to be leveling off while programs are still short of targets needed to achieve universal access.

Recommendations

To the national governments

- *Take the lead in increasing the number and quality of professional health workers being trained.* Many moving parts need to come together for preservice education to improve the supply of health workers. Among them are coordination and streamlining of decisionmaking; needs-based and incentive-driven plans; stronger management, teaching, and curricula; improved facilities; regional cooperation where appropriate; training management information systems; development partner buy-in; sustainable financing; and postgraduation opportunities and uptake. Many actors have a role in all this; however, the ministries of health need to take the strategic lead to coordinate the efforts. All three countries have been making strides to address many of these issues, but much still needs to be done. Zambia provides a strong example. The 2008 National Training Operation Plan set training output targets for all cadres in consultation with all 39 health training institutes in the country. All the institutions then developed institutional training plans with individual targets. This was a good first step in better coordinating activity in this sector, but infrastructure, equipment, and staffing are still bottlenecks,[25] while budget constraints

21. Independent Review Team 2008.

22. The fiscal 2009 PEPFAR Country Operational Plan for Mozambique includes around $5 million for the working group on preservice education (PEPFAR 2009a). This covers preservice education for professional cadres and community health workers (Costa, Durão, and Nevers-João 2009).

23. World Bank n.d.

24. World Bank n.d.

25. Campbell and Caffrey 2009.

caused the plan to be frozen after its first year.

To the national governments and AIDS donors

- *Address policy and implementation fragmentation of preservice education in countries.* Besides the need for additional resources, cross-ministry and -agency fragmentation of responsibility for the health workforce also stymies national efforts to strengthen preservice education.[26] While ministries of health may make national plans, control and management of the component of preservice education are fragmented across government and nongovernment actors. Direct control of training institutions and field-based training sites may rest with ministries of education, ministries of health, local governments, or private for-profit and nonprofit entities. Control over resources may rest with ministries of finance, ministries of public service, or donors. And control over curriculum, standards, and priority cadres may be influenced by everyone, from professional associations to ministries of public service and all those with a role in running or funding training institutions. It is futile for AIDS donors and ministries of health to write their own plans for preservice education when implementation will depend on the decisions and actions of so many others.
- *Ensure that governments continue to take the lead on preservice education coordination through their national planning processes.* Moving forward, AIDS donors are going to be large contributors to preservice education financing. Their funds and activities will need to be coordinated along with government agencies and other donors to minimize further fragmentation of decisionmaking for the health workforce.

To PEPFAR

- *Explain how the global target of training 140,000 new health workers will be translated into country targets and clarify how specific PEPFAR inputs will increase the number and quality of health workers while improving their skill mix.* PEPFAR's intention is to produce 140,000 new graduates focusing on key clinical cadres such as doctors, nurses, and midwives. One year into the five-year program there is anecdotal evidence of a wide range of preservice education inputs in Mozambique, Uganda, and Zambia, but specific plans for producing new graduates have not yet been solidified (Partnership Frameworks, Partnership Framework Implementation Plans, and fiscal 2010 Country Operational Plans). Following current PEPFAR guidance, the global target may simply drive yet another counting exercise—this time of health workers graduating from training institutions.[27] As the PEPFAR teams in Mozambique, Uganda, and Zambia move to complete their plans, they should address how they will fund this new mandate, how they will count new graduates, and what measures they will use in each country to align training with national priorities and ensure quality. PEPFAR has signaled that it will flat-line funding in Uganda until 2013,[28] while providing only modest increases to other countries,[29] suggesting that other program areas will be cut to fund preservice education. Anecdotal evidence about the Partnership Frameworks and PEPFAR's increasing inputs into preservice education in Mozambique and Zambia suggest that good work has been started. However, given PEPFAR's past challenges with country alignment and long-term planning, success should not be assumed.

To the Global Fund

- *Follow up and improve on the funding that has started to flow for preservice education of health*

AIDS donors' funds and activities will need to be coordinated along with government agencies and other donors to minimize further fragmentation of decisionmaking for the health workforce

26. GHWA 2008.

27. PEPFAR 2009b,c.

28. According to the PEPFAR country coordinator in Uganda, funding will stay at $280 million a year until 2013 (as quoted in Mugerwa (2009).

29. Zwillich 2009.

All three AIDS donors have invested heavily in HIV/AIDS-specific short-course training in Mozambique, Uganda, and Zambia, but reports raise concerns that it has caused disruptions and skewed incentives

workers in Mozambique and Zambia. Strong support for preservice education has emerged in approved round 8 Global Fund proposals for Mozambique (pending signature) and Zambia (pending disbursal of funds). These applications, successfully facilitated by the Global Fund and based on national health workforce development strategies, set performance targets for improving training institution capacity and outputs. They should help to partially address a great need in both countries. But there are many challenges, including weak training capacity and fragmented control over training institutions and curricula. It will be important to closely follow and learn from implementation of these efforts to improve the programs in these two countries and to inform programs in other countries, like Uganda, that need to greatly improve preservice education but have not yet produced successful proposals to do so. The country portfolio manager and Secretariat should support funding recipients in identifying and addressing bottlenecks to improving capacity, ensure that training outputs follow the priorities set in the national health workforce plans, and ensure that higher numbers are accompanied by improved quality.

To the World Bank

- *Explore opportunities for directly funding preservice education of professional health workers.* As the World Bank winds down the MAP and folds HIV/AIDS funding into its broader health, nutrition, and population portfolio, it could fill more of the funding gap for preservice education of health professionals. This could be done in the context of World Bank plans with the GAVI Alliance and the Global Fund to establish the Joint Funding Platform for Health System Strengthening.

Task 2. Train health workers as part of the health system, not just for donor-supported projects

To rapidly scale up treatment programs, AIDS donors had to rely on existing health workers. This required training many of them in new skills. All three AIDS donors have invested heavily in HIV/AIDS-specific short-course training in Mozambique, Uganda, and Zambia.[30] The three countries have reported hundreds of thousands of PEPFAR-related training encounters over the past few years,[31] and PEPFAR planned for 2.7 million training encounters globally in 2008.[32] The scale and speed of this training effort involved a tradeoff: little time for quality control or coordination of training and a reliance on indicators that focused on training outputs rather than competencies or skills. Reports from Mozambique, Uganda, and Zambia raise concerns that this large-scale HIV/AIDS-focused short-course training has caused disruptions and skewed incentives.

In-service training in the three countries

In all three countries health workers view in-service training as a major incentive because of the stipends and the professional developement opportunties. According to a key informant from a U.S. government PEPFAR recipient organization in Mozambique:

> In-service training for some people is perceived as [an] incentive, depending on how you look at it, but certain[ly] PEPFAR reports in-service training and upgrading people's knowledge as [an] incentive.

A U.S. government agency in Mozambique reported that PEPFAR supported more than 325,000 training encounters over 2004–09. As might be expected, more than 90 percent of them focused on HIV/AIDS-specific skills, including more than 220,000 in abstinence/be-faithful and orphans and vulnerable children programs (see table

30. PEPFAR focus on in-service training in Zambia (Campbell and Caffrey 2009).

31. Ssengooba and others 2009; Costa, Durão, and Neves-João 2009; and Mwamba-Shalumba and others 2009.

32. PEPFAR 2008.

3.1).[33] While this focus is not surprising in a vertical HIV/AIDS program, it does raise questions about whether health sector needs for continuing education are being met in a balanced and coordinated fashion, especially considering that Mozambique's 2009 in-service training budget for the entire health sector was just over $1 million[34] and PEPFAR's was more than $3.6 million.[35]

Key informants in Uganda worry about the high rates of paid absenteeism being caused by a flood of output-focused short-course training for HIV/AIDS programs.[36] In 2007/08 PEPFAR delivered more than 143,923 training encounters in a country with an estimated health workforce of 59,000 in 2002.[37] The government worries about this uncoordinated and unregulated training[38] and has begun regulating its quantity and quality. As one program manager of a PEPFAR-funded human resources for health project commented:

> [PEPFAR is] focused on those activities that support HIV programs. Remember the objective of PEPFAR is not to deal with workforce but to deal with HIV, malaria, and [tuberculosis]. So most activities for [human resources] are in-service training. How to get nurses and clinical officers to deliver [antiretrovirals, prevention of mother-to-child transmission], counseling, etc.

Views in Zambia are that the motives for training, both for trainers and trainees, may not always be desirable. One national-level key informant spoke of "trainingism," described as training for its own sake and serving the interests of the individuals more than those of the health system. Another national-level informant suggested that there was no coordination of training, which led to too many workers being away from health centers and hospitals at one time:

> Up to 70 percent of the doctors in the districts are just not at work because they are always on training, because this country, this government, insists on rewarding people for not being at work, which is really the bottom line. And there is no coordination of trainings, so if you have got three doctors working in a hospital they'll go for training at the same time.

This sentiment is echoed in the *Zambian Human Resources for Health Strategic Plan:* "Registered nurses and midwives are going to district-based facilities to access in-service training opportunities, housing and transport allowances, to work on donor-funded programs, and to avoid heavy workloads."[39]

The size and intensity of AIDS donors' scale-up of in-service training, while a major achievement, have thus not been without problems. The concern is how to address the potentially negative consequences of intensive project-specific and output-focused training in future efforts to build the skills of the health workforce.

The size and intensity of AIDS donors' scale-up of in-service training, while a major achievement, have thus not been without problems

Recommendations

To the national governments

- *Guide AIDS donors to align in-service training with national strategies.* While the need for continuing education is great in Mozambique, Uganda, and Zambia, every in-service training encounter has large opportunity costs in patients not served and other training forgone. Each encounter should improve the competence and productivity of health workers and the quality of care. By establishing quality standards, coordination and monitoring systems, and restrictions, ministries of health can become better stewards of health workforce

33. Costa, Durão, and Neves-João 2009.
34. Mozambique Ministry of Health 2008.
35. Costa, Durão, and Neves-João 2009.
36. Caffrey 2005; Uganda Ministry of Health 2005b.
37. Ssengooba and others 2009.
38. Uganda Ministry of Health 2007b, pp. 16–17.
39. Zambia Ministry of Health 2005a, pp. 10–11.

In scaling up HIV/AIDS prevention, treatment, and care programs, AIDS donors have sought to allocate prevention, treatment, and care tasks to lower level staff and to train new cadres of project-specific workers to fill gaps

training. Mozambique signs codes of conduct with development partners, which inform coordination arrangements for their International Health Partnership and Related Initiatives country compact and show how the government can establish guidelines for aligning donor efforts. Uganda has put a cap on how long a public sector worker can spend on training, but it still needs to ensure that the limited resource of health workers' time is used to the fullest. In 2005 Zambia created an in-service training coordination strategy with the support of the United States Agency for International Development, but the plan was never implemented and donors' narrow focus on project-based training continued.[40]

To the AIDS donors

- *Train workers for a health workforce, not just for projects.* All in-service training for HIV/AIDS projects should be coordinated under a broader national strategy for the continuing education of health workers focused on appropriate competency, career development targets, and quality control standards. Donors could support country capacity building to develop this strategy and to coordinate a national health workforce education plan. A national training strategy should provide a framework to accommodate workforce planning at the facility and district levels, to allow managers to identify and fill training needs among their staff.
- *Develop and report training indicators that go beyond enrollment numbers.* Donor reports focus on the number of training encounters and offer few assessments of the competencies of health workers trained in these programs. For example, in PEPFAR's 2007 indicators reference guide, 17 of 48 program-level indicators measure individuals' training participation, and only 4 measure organizational capacity.[41] Performance measures for training should focus on competency, rather than number of people trained. These targets for achieving competency should be guided by national professional development accreditation. In this way professional development rather than stipends can be used as incentives for in-service training. Also, if donor trainings use national systems of accreditation, acquired skills can more easily be recognized outside the scope of AIDS donor projects—for instance, making it easier to redeploy health workers after projects end.

40. Campbell and Caffrey 2009.

41. Campbell and Caffrey 2009.

Task 3. Fully invest in better task allocation for all health outcomes, not just HIV/AIDS programs

In scaling up HIV/AIDS prevention, treatment, and care programs, AIDS donors have sought to allocate prevention, treatment, and care tasks to lower level staff and to train new cadres of project-specific workers (such as health counselors) to fill gaps. Donors have used task-shifting to address workforce shortages, redistributing tasks among health workers to improve service access, efficiency, and quality. In-service training has accompanied these efforts to ensure that workers have the necessary skills. However, a host of other changes are also needed for effective task-shifting, requiring large investments in resource-constrained settings.[42]

In the three study countries task-shifting has reduced the number of doctors required to deliver HIV/AIDS services and improved some dimensions of service quality.[43] But questions arise about the sustainability of volunteers (see task 4), and key informants report that task-shifting has overburdened nurses. In addition, there is little understood of how shifting HIV/AIDS-specific tasks affects the ability of health systems to deliver other health services. This knowledge gap is emblematic of the narrow view of task-shifting taken by AIDS donors which, so far, focuses only on HIV/AIDS

42. IOM 2006.

43. WHO 2009; Campbell and Stilwell 2008; Campbell and Caffrey 2009; Lehmann and others 2005; Morris and others 2009.

service outputs, not the overall effectiveness of the health workforce.

Growing reliance on task-shifting

All three countries have a long history of managers and workers creatively reallocating tasks based on necessity rather than on a plan for producing more effective, equitable, or efficient services. For example, Mozambique's workforce shrank by at least half during post-independence conflict, leading to a seismic shift in tasks. In all three countries there are reports of facilities with just one clinically trained health worker—or none at all. In all three countries a majority of women give birth at home, often with an untrained relative as the only attendant. Families, facilities, and communities make do with the resources and skills available. National planners have tried to formalize some of these de facto arrangements through efforts to register and train traditional health providers and support cadres of community health workers. However, most communities, especially in rural areas, are still severely underserved by skilled health workers. With the spread of HIV/AIDS, new service needs have emerged, but with no commensurate increase in the capacity of the health workforce.

To quickly scale up and deliver HIV/AIDS programs despite limited human resources, donors have relied on available cadres and cadres that can be quickly and inexpensively produced. This strategy has been most vigorously pursued by PEPFAR, with its centrally defined program targets and annual planning cycles. Though less explicit about task-shifting, the Global Fund has relied heavily on existing staff and the MAP has promoted community-based service delivery, both models that result in task-shifting.

PEPFAR views task-shifting as the most effective strategy for dealing with the health workforce crisis in resource-constrained environments. It is faster and less costly to train and employ lower level cadres, they are less likely to leave,[44] and they are better positioned to provide some services within communities.[45] PEPFAR asserts that shifting tasks from more to less specialized workers "will have the most significant and immediate effect of increasing the pool of health workers in resource-limited settings."[46]

Global Fund guidance did not explicitly mention task-shifting until round 7. Since the Global Fund is wary of funding recurrent costs, implementing partners have had to make do with existing health worker capacity or capacity that could be quickly and easily employed, such as community health workers—at least until very recently.[47] A large part of the MAP strategy in all three countries was to support HIV/AIDS service delivery through grants and training for community initiatives that were often outside of health facilities and often employed lower level clinical cadres or community health workers.

Many recent studies document the importance of task-shifting in the rapid scale-up of HIV/AIDS services.[48] The balance of evidence seems to indicate that task-shifting to community-based cadres has helped ramp up and improve the quality of community-based HIV/AIDS services. A study in Uganda showed that employing community health workers to deliver home-based care improved feasibility without jeopardizing the quality of care but also that task-shifting yielded only a small cost savings for the scale-up of antiretrovirals.[49] Other studies by PEPFAR implementers have argued for the effectiveness of task-shifting for service delivery.[50]

PEPFAR views task-shifting as the most effective strategy for dealing with the health workforce crisis in resource-constrained environments

44. PEPFAR 2008.

45. In January 2008 national health ministers, public health leaders, and HIV/AIDS experts convened in Addis Ababa at the first international conference on task-shifting to address health worker shortages and scale up access to HIV/AIDS treatment and expand the global health workforce. The conference was cosponsored by the WHO, UNAIDS, and PEPFAR (2008).

46. PEPFAR 2008, p. 24.

47. Drager, Gedlik, and Dal Poz 2006.

48. Lehmann and others 2009; Sanjana and others 2009; Morris and others 2009; Adjei and others 2009; Mullan and Frehywot 2008, among others.

49. Chandler and Musau 2005.

50. Benavides and Caffrey 2006; Buchan and McCaffery 2007.

Though task-shifting will remain an important aspect of any strategy for effectively using the limited health workforce, there are problems with it, including the overburdening of some cadres

The government and donors have discussed the positive effects of task-shifting as a strategy in Zambia for deploying health workers in rural areas and preventing external "poaching" of health workers. For example, medical licentiates who are deployed in hard to reach rural areas are able to perform surgery unsupervised by higher level health professionals, yet because their cadre is not officially recognized by other countries, they cannot practice outside Zambia. A private nonprofit hospital manager describes the realization that task-shifting was more effective in keeping the facility staffed because tasks that doctors normally perform can be shifted down to lower level cadres who do not leave as frequently as doctors do:

> We used to have seven doctors here, but the turnover was a bit high. They realized that the pay was low and they would work for a year or a year and a half and they would go away either for further studies or to better paying jobs. When we realized that doctors had higher chances of choosing to go, . . . [for] further studies or greener pastures, we felt it was good to recruit clinical officers because they can work and take care of our patients.

In the absence of qualified staff, donors and government programs support the shifting of tasks to locally recruited lower level health workers who require shorter training and have lower salary expectations.[51] According to a recent study from Zambia, one PEPFAR-funded international nongovernmental organization (NGO) pays lay counselors (who are managed by government health facilities and work 20 hours a week) for travel expenses only, at about $25 a month:[52] A health facility manager voices some concern about the adequacy of this arrangement:

> The drawback is the amount of money they receive. They are here for 2–3 days, all day, and with no lunch. What they receive is too little. We may lose them if they find better payment in the future. If they leave us, this will impact negatively.[53]

Though task-shifting will remain an important aspect of any strategy for effectively using the limited health workforce, there are problems with it, including the overburdening of some cadres.[54] Health facility managers in Mozambique reported that frontline workers, especially nurses, are most in demand. Managers of rural health centers, which typically are staffed only by a nurse and an assistant, complained that they do not have enough nurses. They reported that task-shifting and multitasking were common and sometimes led to nurses working around the clock.

> Our nurses in the remote areas work almost 24 hours a day since they cannot be replaced. The situation becomes pitiful when they have to go on vacation. Our nurses in those areas hardly get any rest.

In Uganda as well the heavy reliance on nurses and midwives has led to overburdening without a commensurate increase in remuneration. This has the potential to demoralize workers and reduce service quality. As the district coordinator of a prevention of mother-to-child transmission program explains:

> The biggest impact is what we call task-shifting. . . . [The Ministry of Health] doesn't have a cadre in counseling . . . yet we must counsel our women and take them through the right direction. It is a bit of double standards. Now the problem comes, the same counselor is the same midwife and must be everything alongside the integration [of HIV/AIDS services with maternal and child health services], yet the midwives are few. Now, task-shifting has shifted [counseling] to the midwife but multitasking is the result. . . . [It is] good for

51. Another example is Torpey and others 2008.

52. Sanjana and others 2009.

53. Quoted in Sanjana and others 2009, p. 5.

54. WHO 2009; IOM 2006.

one to do everything, but what is the quality? Recently, I went for support supervision in one of the health centres and I found a nursing assistant running the whole antenatal clinic. And she had treated 46 women. . . . It was about two o'clock and she had done HIV counseling and testing for all those people, she had given medication, she had done antenatal, and this is a nursing assistant. Why should you overload all those tasks to a nursing assistant? I look at task-shifting as a big work overload, a burden, . . . and [it] goes with poor performance. . . . [A]nd the outcome is clearly stress. The work is too much that one can't bear it.

District respondents in Uganda, skeptical of the short-term interests of donors, had similar concerns that workload burdens from task-shifting would hurt the health workforce. They argued that the government should focus on producing more health workers and expanding its capacity to employ them instead of embracing short-term solutions like task-shifting. A respondent from a PEPFAR-funded human resources for health project noted of PEPFAR projects:

> . . . [D]ue to the shortages in the system, task-shifting is now being embraced to ensure that available staff are rationally used. Clinical officers may now start patients on [antiretrovirals] and nurses can do follow up. . . . That way a doctor can do more work that requires his skills. In theory it is a good idea. But you and me know that it has its challenges. But donors have only short-term interest. The government is the one that should drive the development of the workforce.

The WHO, along with the Joint United Nations Programme on HIV/AIDS and PEPFAR, has developed guidelines for the investments needed to make task-shifting safe and effective, as well as recommendations on which cadres should be able to perform HIV/AIDS prevention, treatment, and care tasks.[55] The guidelines include 22 recommendations that go far beyond suggesting how to allocate clinical tasks. They emphasize the need for critical complementary health workforce reforms, such as universal performance standards, workforce monitoring and assessment mechanisms, support and supervision of health workers, adequate training to deliver high-quality services, and appropriate compensation.

Done right, task-shifting can be a part of a broader package of reforms for better managing limited human resources to deliver health services. However, doing it right will take large investments to improve training, expand the workforce, reform compensation, and create effective monitoring, supervision, and quality control mechanisms.[56] These conditions are difficult to meet in resource-constrained environments.

Done right, task-shifting can be a part of a broader package of reforms for better managing limited human resources to deliver health services

Recommendations

To the national governments

- *Focus task-shifting efforts on worker competency, the role of managers, and context-responsive guidelines.* Task allocation is an issue primarily of health workforce management and largely depends on human resources management expertise at the facility and local government levels, where decisions about staff capacity and patient needs are made. Guidelines and policies at the national level can support these decisions, assuming they are appropriate to the particular capacity of health workers and the health needs of communities. Ministries of health are responsible for developing appropriate service protocols and should adapt the generic guidelines on task allocation and task-shifting developed by the WHO and others to be relevant for their managers. These guidelines will need to evolve regularly as the structure and skills of the health workforce improve, and

55. WHO, UNAIDS, and PEPFAR 2008.

56. WHO, UNAIDS, and PEPFAR 2008; Lehmann and others 2009.

Community health workers are the base of the health workforce pyramid in resource-constrained environments

changes will need to be communicated to health workforce managers. Recommendations under the tasks on preservice education, in-service training, and community health workers would all contribute to ensuring that more health workers have the skills to take on tasks.

To the AIDS donors

- *Don't cut corners—get task-shifting right.* According to the WHO guidelines, getting task-shifting right will require large investments in training, monitoring, sustainable financing, supervision, reconfigured health teams, and support.[57] Task-shifting should be planned and implemented as a measure for improving quality and access to important services, not as a way to cut corners or save on human resources costs.[58,59] In Mozambique, Uganda, and Zambia there are many barriers to providing the resources and support needed to allocate tasks to those with the time and skills to perform them. In some instances, HIV/AIDS service tasks are supplanting other work responsibilities or are being done by people without the necessary training or support. For example, in many rural clinics in Mozambique, one or two staff are working 20-hour days with very little support.[60] Thus, without proper investment, task-shifting can make an already difficult situation worse.
- *Assess the effectiveness of task-shifting in improving service delivery capacity across all facilities and all health objectives, not just for HIV/AIDS.* While allocating HIV/AIDS program tasks to lower level cadres and introducing new cadres to fill HIV/AIDS services gaps have enabled donors to scale up programs rapidly, there is little information about the effect on other services or the management and supervision of health workers. Most studies of the effectiveness of task-shifting have looked only at how task-shifting has affected particular HIV/AIDS projects. Research is needed on systemic capacities and the whole range of health outcomes for which health care facilities are responsible. The reauthorization of PEPFAR has called for increased operations research; analysis on the effectiveness of task-shifting should be a focus area.

Task 4. Define the role of community health workers as tasks are shifted downward

Community health workers are the base of the health workforce pyramid in resource-constrained environments. Communities were recognized as critical parts of primary health care systems in the 1978 Alma Ata Declaration, with many African countries beginning to formally use community health workers around the same time.[61,62] But only recently have they formed a crucial part of the health system response, spurred by their increased work on HIV/AIDS.

In all three study countries, the three major AIDS donors support community health workers for carrying out HIV/AIDS-related services. The Global Fund and PEPFAR supported community health workers as part of their task-shifting strategy (see task 3), whereas the MAP's goal was to invest in community initiatives, some of which involved community health workers. Despite long-standing recognition of community health workers, their role in the health workforce is still not clear, and no career paths have been set for these nontraditional health workers. These workers are being trained and employed on an as-needed basis, without reference to any national monitoring, guidelines, or standards. There is little mention of these workers in national human resources for health plans

57. WHO, UNAIDS, and PEPFAR 2008.

58. There is mixed evidence on the impact of task-shifting on program costs, as clearly stated in the guidelines on task-shifting, which call for many costly systemic improvements (WHO, UNAIDS, and PEPFAR 2008).

59. WHO 2007; Philips, Zachariah, and Venis 2008.

60. Costa, Durão, and Neves-João 2009.

61. GHWA 2008.

62. Costa, Durão, and Neves-João 2009.

and no clear sense of how community health worker programs will be sustained without long-term donor support.

Experience with community health workers

In Mozambique a strong cadre of community health workers (known as agentes polivalentes elementares) has been part of the government's rural health services for decades.[63] The Ministry of Health estimates that it supports 400–700 community health workers through six month long preservice trainings and a monthly basket of basic supplies to provide a broad range of health services. The government does not pay community health workers, though donors have started to offer support stipends. The government sees an expanded role for better trained and supervised community health workers to strengthen the link between the community and health facilities,[64] estimating that 7,000–10,000 community health workers are needed to reach all underserved rural communities.[65]

The Mozambique government has been supportive of donor investments in community health worker programs of all types, not just the government's model, apparently putting no restrictions on community health worker programs, not even for monitoring. This has created an environment in which donors are free to train and employ community health workers as they see fit. The three donors respond in quite different ways to this freedom.

The Global Fund, through contributions to the joint donor fund for financing the health care sector (PROSAUDE) and to provincial common funds, has continued to fund revitalization of the government's system of community health workers. According to the round 6 proposal, revitalization included "the updating of the curriculum, the training and continuing education of new community health workers, and the provision of subsides for 805 community health workers."[66]

PEPFAR's recipient organizations coordinate with provincial governments to train the community health workers needed for their projects. Trained and employed by NGOs, these community health workers are often focused only on HIV/AIDS services. There are no national counts of how many new community health workers PEPFAR has trained.

For the MAP, provincial coordination teams provide mini-grants to implement HIV/AIDS-related activities that may include training or employment of community health workers. There is no monitoring of the number of community health workers or of what services they provide. Other health sector donors are also investing heavily in community health workers, adding to the difficulty of counting them and understanding how much capacity they are adding to the health workforce.

Donors in Uganda, especially PEPFAR, engage with community health workers to supplement the country's limited health workforce. In PEPFAR programs the volunteer workforce is sometimes twice the size of the professional workforce. Many community health workers are recruited directly from antiretroviral therapy patient rosters, trained in home-based care and basic counseling and testing services, and given a small stipend (usually transportation and lunch allowances). With salaries in the public health sector generally low, these allowances are sometimes higher than the salaries for formal health sector jobs. The monthly allowances for volunteers in one big HIV organization in Kampala were said to be equivalent to the average salary of a nurse in the private not-for-profit (faith-based) sector.[67] And while some NGOs aim to transform the pool of volunteers into semiskilled health workers, especially for HIV/AIDS counseling, questions remain about what types of career path lay ahead for community health workers.[68] As

In Uganda many community health workers are recruited directly from antiretroviral therapy patient rosters, trained in home-based care and basic counseling and testing services, and given a small stipend. With salaries in the public health sector generally low, these allowances are sometimes higher than the salaries for formal health sector jobs

63. Costa, Durão, and Neves-João 2009.

64. Mozambique Ministry of Health 2008.

65. The estimate is based on a desired ratio of 1 health worker for every 200–500 people. Community health workers are expected to account for about 1 percent of Mozambique's health workforce spending in 2010.

66. Mozambique Country Coordinating Mechanism 2006.

67. Ssengooba and others 2009.

68. Ssengooba and others 2009; Mwamba-Shalumba and others 2009. See more discussion of this in the task-shifting

While the Zambian government sees the value of community health workers, it has yet to fund them

a PEPFAR-funded health workforce project worker explained:

> New cadres like "counselors" and "educators" have been trained. Jobs for these cadres will be available only as long as HIV/AIDS funding is available, but they may fail to be employed if this funding stops.

Since the Ugandan government considers community health workers volunteers, they are not counted at the central level or included in the national health workforce policy or strategic plan.

Similarly, though the Zambian government recognizes the use of community health workers in the health sector, they are not included in the national *Human Resources for Health Strategic Plan*. According to the plan, "Promoting the use of nonformal health workers and non-health professionals is another area that should be explored to extend coverage and address distributional imbalances."[69] This seems to be happening through a proposal in the Ministry of Health to create a formal cadre of up to 10,000 community health workers. However, while the government sees their value, it has yet to fund them. The number of community health workers declined from 4,480 in 2006 to 3,770 in 2007.[70,71] A national-level key informant observes:

> What I think is encouraging is the fact that the ministry has recognized that these are trainable and it's an untapped human resource, so I think we are getting there. They are a recognized cadre within the [Ministry of Health] structure, but they are not funded."[72]

Their expansion has been the result of donor action, with PEPFAR, the Global Fund, and the MAP actively supporting HIV/AIDS service delivery at the community level.

All three donors invested heavily in training and employing community health workers in Zambia. To support plans for task-shifting, PEPFAR created a new type of community health worker called peer educators. More experienced than other community health workers in Zambia, this new cadre focuses on HIV/AIDS services and receives a monthly stipend in accordance with district pay scales. Other community health workers in Zambia usually receive only transportation and lunch allowances.[73]

With Global Fund support, the Churches Health Association of Zambia trained new community health workers to provide sensitization and stigma-reduction services and adherence support and trained new traditional birth attendants. The Global Fund supports these workers through "enablements" that give them the financial backing needed to carry on their work. A national-level key informant explains:

> You have these people who are working in HIV and particularly those people working in home-based care because they have absolutely no other income. . . . [W]e are not giving them income as such. What the Global Fund says [is] that we'll give you an "enablement" to be able to carry out this Global Fund–related activity. For example, home-based care, you need to go from your house to where the patient is, and I think it's a little bit too much to expect somebody to get money from their own pocket to do that. But I can tell you that people in the rural areas do that. Even people in town do that.

The MAP also focused its recruitment support on increasing capacity in the community to respond to the HIV/AIDS epidemic.

section.

69. Zambia Ministry of Health 2005a, p. 11.

70. Independent Review Team 2008.

71. The 2008 Zambia health sector Mid Term Review (Independent Review Team 2008) also reported a decrease in active traditional birth attendants, from 5,332 in 2006 to 5,239 in 2007.

72. Mwamba-Shalumba and others 2009.

73. Morris and others 2009.

Through the Community Response to HIV/AIDS in Zambia, thousands of community health workers were trained in behavior change, counseling, peer education, and care giving. The MAP reports having trained more than 20,000 peer educators and 25,000 HIV/AIDS peer educators and counselors,[74] but it is not clear whether these were new community health workers or existing community health workers receiving in-service training. When the program ended in 2008, the government proposed using Global Fund round 8 money to continue the project.

Recommendations

To the national governments and AIDS donors

- *Count and recognize community health workers as part of the health workforce.* While in existence for decades, community health workers are only now becoming an important part of the health workforce, particularly in bringing health services closer to communities. Governments should ensure that national health workforce plans fully account for these cadres. Mozambique has started to do this through its national human resources for health plan and a national plan to scale up community health workers, which rolled out in January 2010. It is unclear, however, whether this plan will harmonize the activities of all the NGOs in Mozambique that are training their own community health workers, using their own sets of qualifications and recruitment practices. A first step toward improving coordination is to track the training and employment of community health workers in the public sector and in donor-funded programs and to use these data for health workforce planning. Appropriate training and career paths for professional growth should be considered as incentives, enabling some community health workers to ascend the ranks and become paid health care professionals. This strategy could create a bottom-up supply of health workers who are from the communities they serve.

To the AIDS donors

- *Train and employ community health workers in alignment with national plans.* To bolster the systemic and sustainable employment of community health workers and integrate them into national health plans, AIDS donors should help develop and follow nationally defined standards and norms for community health workers and report data on the workers they employ to national human resources information systems. PEPFAR has started to do this in Mozambique, where it helped develop and will be a major funder of the national community health worker scale-up plan, which includes a four-month training curriculum. PEPFAR should opt for this aligned approach for the community health workers it supports. PEPFAR is also working with the Global Health Workforce Alliance to develop best practices in the training, deployment, supervision, and compensation of community health workers. This can be an important resource going forward, as long as it is adapted to local contexts.
- *Assess the effectiveness of community health cadres.* The three AIDS donors have supported many different models of community health worker programs. Existing operations research on these programs should be collected into a synthetic review, and additional operational research should be commissioned to fill gaps. This research will contribute to understanding how community health workers have changed the process and outcomes of health service delivery and help design more-effective community health worker programs. Where possible, these studies should not be limited to effects on HIV/AIDS services and health outcomes alone, particularly if community health worker programs are intended to be the front line of the health system. PEPFAR is in a particularly strong position to take on this research agenda, since funds for operations research are part of its legislative mandate.

Governments should ensure that national health workforce plans fully account for community health workers

74. World Bank 2009.

AIDS donors have introduced massive new resources and opportunities that change the incentives for health workers, altering the dynamics of employment, career paths, and management of the health workforce

Task 5. Provide performance incentives for all health services, not just for HIV/AIDS

The health labor market is complex, with political and social dynamics affecting both supply and demand. Health workers respond to financial and nonfinancial incentives in making employment decisions.[75] Decisions about career paths, training, migration, working in rural or urban facilities, and time allocation on the job, among others, are based on comparative assessments by health workers. As a manager from a PEPFAR-funded program comments:

> Now all doctors want to come to you to learn public health because public health has money. People go where there is money not to work as a necessity for progress. This dislocates people from other priorities.

This labor market understanding of the health workforce—that the agency of health workers is a key element in determining the structure of the health workforce—has focused attention on financial and nonfinancial incentives for planning and managing the health workforce. It also raises critical questions about what happens when external vertical funding creates a substantially different incentive structure than the national structure, one focused on a subset of health objectives and short-term programs. AIDS donors have introduced massive new resources and opportunities that change the incentives for health workers, altering the dynamics of employment, career paths, and management of the health workforce. For instance, there are situations where volunteers get paid more in allowances than nurses get in salaries.[76] The risk is that incentives narrowly designed to achieve the goals of AIDS projects may create dynamics ill-suited to a health system whose aim is to achieve a broader array of health objectives.

75. Vujicic and Zurn 2006.

76. Ssengooba and others 2009.

Skewing incentives

Skewed donor incentives, independent of government-based incentives and allowance programs—and sometimes in competition with them—have influenced the movement of health professionals across sectors and programs in Uganda and Zambia and, to less extent, in Mozambique. In Uganda health facility managers shift staff from other program areas and bring in outside staff to cope with growing numbers of clients in HIV/AIDS clinics. However, while employing outside staff on a part-time basis can alleviate some of the burden on overworked clinic staff, a private not-for-profit hospital manager explains that when HIV/AIDS service providers are offered different salaries and incentives, this proves more difficult:

> Doctors and nurses were recruited when [PEPFAR-linked donor] funding was received, but workload increased too much compared to the recruited staff members. Asking other staff to help out [at HIV/AIDS clinic] is a problem . . . because people are in a different [salary] scale or they are not part of the clinic.

These disparities in pay and incentives in Uganda have had perverse effects, drawing health workers to HIV/AIDS service from other service areas and demoralizing health workers without similar incentive packages. This effect can also be seen across facilities, with different HIV/AIDS donors offering different salaries and incentives. Private not-for-profit facilities lose out, as this manager explains:

> The problem is . . . the hospital gives very little salary, and we have lost most of the nurses and doctors. This is one organization that is not very well funded at all. So the [HIV donor] gives us peanuts because they felt that the hospital owns the [HIV] clinic and for them they are coming to give a small top-up. . . . [O]ur staff are paid very little compared to the staff that are in other HIV/AIDS

> programs, and many of [our staff] have gone away ever since this [HIV/AIDS donor] came in. Our staff gained the experiences [on HIV care], and they have gone away to organizations that pay better than us.

And within health facilities, performance-related allowances for HIV/AIDS services lead to a focus on these services at the expense of others. A government health center manager from Uganda states:

> These small allowances by [the HIV/AIDS donor] are paid according to the clients they treat. We now have a challenge. Every staff wants to work in the [antiretrovirals] clinic to get more money. The number of [HIV/AIDS] patients is increasing, and we don't have enough staff to cover the rest of the hospital. Although we try to balance to see that all activities go on concurrently, it is becoming difficult to manage. Government salaries are too little, so it is a constant challenge for me to assign staff away from the [antiretroviral] clinic.

A recent study in Zambia on the impact of global health initiatives on human resources for antiretroviral treatment also shows that AIDS donors provide financial incentives to compensate workers in their programs for the heavy HIV/AIDS-related services added to their workload.[77] The HIV/AIDS Monitor study of PEPFAR, the Global Fund, and the MAP uncovered several practices with unintended consequences for human resources capacity for health in Zambia. Policymakers and implementers reported in interviews that

77. Hanefield and Musheke 2009.

Box 3.1 Zambia Health Worker Retention Scheme—successful in retaining staff in rural areas, but almost wholly donor supported

In 2003 the Zambian government partnered with the Netherlands to deal with staff shortages and maldistribution in the Zambian health system. With the original objective of replacing Dutch doctors in the country, the Zambia Health Worker Retention Scheme is transitioning to include laboratory technologists, nurses, pharmacists, physiotherapists, radiologists, and paramedical staff.

The pilot scheme signed 74 Zambian medical officers on three-year contracts to work in rural and remote districts. (An urban component of the scheme provided incentives such as facility upgrades and uniforms to retain more highly qualified staff at central hospitals.) Health professionals receive both monetary and nonmonetary incentives, such as improved working and living conditions, education opportunities, and a bonus worth nine months' salary for those who complete their three-year contracts.

Implemented in phases, the scheme also has a component for an improved data and records management system for administering records and prepping the monthly payroll. After the first three-year contracts expired, the scheme was able to retain 35 percent of doctors in these rural and remote areas.

While the scheme has been successful in deploying and retaining health professional in rural areas, it is almost wholly donor funded, including support from PEPFAR and the Global Fund. Phase II of Global Fund round 4 money was used to support the scheme, and round 8 and 9 funds are supporting additional training institution lecturers. PEPFAR provides more than $1 million to support the incentive scheme, one of the few examples of direct PEPFAR funding to the national government. The 2009 progress report from the Ministry of Health notes that the scheme relies largely on donor and basket funding, but it offers no suggestions for how to maintain the incentive and salary payments once donor funding ends.

Source: Zambia Ministry of Health 2009; Mwamba-Shaluma and others 2009; Campbell and Caffrey 2009.

National coordination is necessary to ensure that incentive programs contribute to improving health worker performance and distribution, both critical for better health system access, quality, and equity

top-ups (overtime pay and transportation and communication costs) are provided to health workers in PEPFAR-funded programs to retain and motivate staff. These incentives can lead to an imbalance in the quality of care given to patients with non-HIV-related diseases, for which funding and health staff are more limited. And because tops-ups will end once donor funding ends, financial motivation for health workers in HIV/AIDS clinics is not sustainable. The study also found that the three donors often recruit directly from the public sector in Zambia, reflecting a desire to hire staff familiar with the Zambian health system. But this means that incentive differentials are creating competition between government and nongovernment facilities, with increased capacity in the nongovernment facilities seeming to come at the expense of lost capacity in government facilities.

Recognizing the need for an incentive structure that supports national retention and distribution objectives, many donors are working with the Zambian government to support the Zambian Health Worker Retention Scheme. While initial results have been good, the scheme has been implemented only on a small scale and is dependent on donors for continued funding (see box 3.1 for details).

There is less evidence from Mozambique of AIDS donor incentives changing workforce patterns. Almost all health workers are based in public facilities, and the government has been active in creating a formal code of conduct and ensuring that all incentives paid by donors are aligned with civil service incentives. Despite these efforts, however, there is evidence that Global Fund financing was used to pay managers of HIV/AIDS programs on a significantly higher pay scale.[78]

Governments and donors can take measures to harmonize incentive schemes with local health priorities and plans and ensure that they lead to improved and equitable health outcomes. The International Health Partnership compacts may be useful frameworks within which to negotiate such arrangements, as they are designed to cover all development partners. The arrangements could then be restated in PEPFAR's partnership frameworks. In Mozambique, for example, the International Health Partnership and Related Initiatives compact incorporates the codes of conduct on aligning incentives with public sector programs that the government has developed and signed with development partners and international NGOs. Negotiating such agreements may be more complicated in Uganda and Zambia, where health worker employment is much more widely distributed across government and nongovernment facilities and incentives are more diverse, but the agreements are just as important.

78. Round 2 and 6 budget plans and Ministerial Order, Minister of Finance, 12 May 2008.

Recommendations

To the national governments

- *Take the lead in overseeing, regulating, and setting public sector policies on financial and nonfinancial incentives to improve health workforce retention and performance.* National coordination is necessary to ensure that incentive programs contribute to improving health worker performance and distribution, both critical for better health system access, quality, and equity. All three governments have been developing financial and nonfinancial incentive structures to improve health worker retention and performance. This is particularly important in underserved—often rural—areas. However, high attrition rates, poor performance, and maldistribution of health workers and managers persist in all three countries. In Mozambique, where most of the health workforce is in the public sector, the next step may be a simple matter of evaluating and improving an already coordinated national incentive structure. In Uganda and Zambia, however, many incentive policies are determined outside the public sector and at district and facility levels. The governments must address these challenges and make incentives more responsive to demand (health needs) than to the supply of health funding. Especially important are ongoing monitoring and analysis of incentive policies across

health employers and of corresponding changes in staff distribution and performance. Such labor market analysis would allow governments to establish evidence-based rules, particularly for external actors like the AIDS donors. This evidence base can also guide government course corrections of public sector incentive structures to improve workforce performance, distribution, and retention. Strong government leadership and coordination are an important prerequisite for AIDS donor efforts to balance incentives.

To PEPFAR

- *Create and harmonize guidelines and protocols for PEPFAR-funded incentives and mitigate the negative spillovers of high HIV/AIDS-specific incentives by strengthening incentives for the entire health workforce or holding the incentives provided with AIDS funding to national levels.* PEPFAR's vertical and parallel funding and rapid scale-up have created competing financial and nonfinancial incentives, leading to labor market distortions. These distortions arise from PEPFAR-funded training, infrastructure investment, allowances, and salaries that are higher than national norms. PEPFAR should bring its incentives in line with national public sector incentive structures. This is broadly the case in Mozambique, and PEPFAR programs do not appear to suffer because of it. In Uganda and Zambia, PEPFAR still needs to harmonize its incentives and public sector incentives to end the competition for health workers that can undermine nationally established priorities. If PEPFAR believes that its incentives are improving productivity and retention instead of reducing them, it could increase investments in government schemes to match its levels. The new coordinated approach under the U.S. Global Health Initiative should make this more feasible.

To the Global Fund

- *Encourage and fund the development and implementation of evidence-based national incentive schemes, and establish policies that limit the potential for incentive-based distortions.* Of the three AIDS donors, the Global Fund is best positioned to fund national incentive schemes to improve health worker performance and retention in underserved areas. The Global Fund could encourage requests for context-proven incentives to retain workers in underserved areas and to improve performance. For example, the Global Fund could immediately increase its funding to the national Health Worker Retention Scheme in place in Zambia since 2003. In Mozambique, where the Global Fund has been moving away from supporting the national scheme through the health sector common fund, it should review the implications for incentives and consider ways to ensure incentive alignment with national structures. In countries like Uganda, with a more laissez-faire system of incentives, the Global Fund may want to support the development of guidelines for improving how external financing is used for incentives.

Of the three AIDS donors, the Global Fund is best positioned to fund national incentive schemes to improve health worker performance and retention in underserved areas

To the World Bank

- *Ensure that lessons from its pilots on results-based financing are applicable to the planning and regulatory roles of national governments and other national actors responsible for coordinating incentives across the health workforce.* The World Bank is piloting results-based financing[79] schemes to learn how to use them to improve health outcomes in developing countries. The World Bank should consider whether these innovations will contribute to further fragmentation of incentives across providers and program areas or whether they will be useful parts of a coordinated system of incentives. In Mozambique any substantial innovation in incentives is a matter of civil service reform.

79. The World Bank uses "results-based financing" as an umbrella term to cover "output-based aid, provider payment incentives, performance-based inter-fiscal transfers, and incentives to communities and households to adopt health-promoting behaviors" (http://go.worldbank.org/DM8JXP4320, accessed November 17, 2009).

HIV/AIDS has created a need for long-term chronic disease management in Mozambique, Uganda, and Zambia, where health systems are already overwhelmed by heavy burdens of other diseases

Will the lessons of World Bank pilots be applicable to a standardized incentive scheme, or will the lessons be limited to incentives schemes for single projects or facilities? In Uganda a large portion of the health workforce is outside the public sector. The government (including the ministries of health, labor, and others) is responsible for oversight and regulation to ensure that this diverse sector is working in the public interest. Will World Bank lessons provide tools to facilitate oversight and regulation of results-based financing? In Zambia, one of the pilot countries, it will be instructive to see how World Bank pilots are coordinating with the health worker retention scheme and how well these interventions address maldistribution and skill mix imbalances across regions and program areas in addition to low motivation and retention at pilot sites.

Task 6. Move beyond hiring workers on short-term staffing for a long-term disease

HIV/AIDS has created a need for long-term chronic disease management in Mozambique, Uganda, and Zambia, where health systems are already overwhelmed by heavy burdens of other diseases. The three countries have developed long-term plans for their public sector health workforce, but the scale-up plans, while realistic given limited resources, are inadequate to achieve basic targets for priority health outcomes (see task 1).

To achieve priority health objectives such as reducing maternal and child mortality and providing greater access to HIV treatment, new health workforce positions need to be established and filled.[80] This requires sustainable financing and other system support for which Mozambique, Uganda, and Zambia lack the necessary resources.[81] While some improvements can be made for using limited workforces more effectively,[82] additional resources beyond the state budget are needed to finance and employ more health workers.

AIDS donors currently account for most additional resources,[83] but the funding is not necessarily contributing to the long-term sustainable development of the health workforce. As an emergency response, AIDS donors hired health workers within and outside the public sector on short-term contracts through special arrangements that work around public sector hiring constraints. But this additional capacity depends entirely on continued AIDS donor funding. Donors' hiring practices have not addressed the underlying administrative, political, and financial constraints to creating new positions within the public health sector, nor have they created a sustainable system for new positions in the nongovernment sector. Most of the new positions will disappear when the donor projects end, even as the need for HIV/AIDS prevention, treatment, and care services remains.

AIDS donor hiring limited to the short term

PEPFAR does not set hiring policies centrally, so practices follow the human resources policies of funding recipients and subrecipients, often implemented through negotiation with local government officials. Recruitment, for example, has been carried out by local government officials or by the funding-recipient organization in Mozambique, Uganda, and Zambia.[84] As a district health official in Uganda commented:

> [The] district service commission does the recruiting for the government facilities in the district, while for some NGOs

80. IOM 2006.

81. To support macroeconomic stability, the ministries of finance in Mozambique, Uganda, and Zambia limit the size of the wage bill and the health sector as a proportion of national budgets. Donors also limit financing of recurrent costs, particularly public sector salaries, to avoid creating dependency and causing macroeconomic problems (Vujicic, Ohiri, and Sparkes 2009).

82. Vujicic, Ohiri, and Sparkes 2009; Taskforce on Innovative International Financing for Health Systems 2009b.

83. Oomman, Bernstein, and Rosenzweig 2008.

84. Ssengooba and others 2009.

recruitment is done by their headquarters but can be deployed in government units.

In Mozambique, where most of the health workforce is in the public sector, PEPFAR-funded recipients hire health workers to work in public facilities but not as civil servants (see box 3.2 for an example of PEPFAR-funded hiring). PEPFAR provides 6–12 months of salary support for these workers, after which they are to be transitioned to the government payroll. In reality, however, Mozambique does not have the budget to absorb these workers into the civil service, and it is unclear what has happened or will happen to them. In Uganda and Zambia, PEPFAR-funded recipients have hired health workers to work in nongovernment facilities on project contracts, and they have made special arrangements directly with local authorities to hire health workers into public facilities, though they are paid off budget through special hiring funds. While PEPFAR's global policy is to try to ensure that there is a strategy to cover these salaries when a project ends,[85] it is hard to see how this can happen when there is not even a count of how many posts have been created under the PEPFAR program in Mozambique, Uganda, and Zambia and when governments lack a funding source to retain new workers.

Hiring on short-term contracts fills some of the immediate need for HIV/AIDS programs, but without sustainable financing new hires will seek other opportunities within or outside the health system. As evidence from Uganda suggests, short-term contract hiring leads to job insecurity, with the contracted health professionals leaving projects in search of their next contract before the projects are

85. PEPFAR 2009a.

Box 3.2 An example of PEPFAR-funded health worker hiring in Mozambique

The International Center for AIDS Care and Treatment Program (ICAP) is a U.S.-based international nongovernmental organization run by Columbia University. ICAP has provided HIV/AIDS prevention, treatment, and care services in Mozambique since 2004 as a funding subrecipient of the U.S. Centers for Disease Control and Prevention. ICAP does not provide health services directly; rather, it supports public health facilities to improve and deliver HIV/AIDS services, especially in specialized HIV/AIDS service provision sites in lower level health centers, often in rural areas.

An ICAP manager estimates that some 10 percent of the budget goes for training and hiring health workers in public health facilities. A subagreement with the Ministry of Health authorizes ICAP to fund the Provincial Health Directorate in hiring new health workers on special (not civil service) contracts. The directorate handles the whole process, from advertising the vacancy through selecting the candidates. ICAP pays through a special account for the directorate, which keeps the funds off both the state and provincial budget. The health workers are paid the prevailing public sector salary and incentives for their position, a policy aimed at avoiding problems between colleagues with the same duties but getting different incentives.

As with all PEPFAR programs, budget planning and approval occur annually. According to the manager, ICAP assumes that its practices are aligned with Mozambique's national health workforce plan because ICAP works through the Provincial Health Directorate, with oversight by the Ministry of Health. In addition to the health workers hired into public facilities, ICAP has its own in-country staff. ICAP staff receive higher salaries than public sector employees do in order to provide adequate incentives to retain skilled workers. In 2005 ICAP had 42 people on staff ($103,980) and paid for 34 health workers in public sector facilities ($85,074). In 2008 it had 126 people on staff ($489,423) and paid for 103 health workers in public sector facilities ($400,437).

Source: Costa, Durão, and Neves-João 2009.

Where economic growth is projected to yield adequate resources to finance increased investments for health, donors can support government plans to hire workers within the broader outlines of national human resources for health plans. For other HIV/AIDS-affected countries, donors will have to work with countries over a longer time horizon

completed. As a clinic manager of an NGO facility explained:

> Other donor-funded organizations use their own recruitment policies to fill staffing gaps. They identify staffing gaps, prepare job descriptions, and advertise shortlist for interviews and hire. These jobs are contract based for the duration of the project—usually one to five years, sometimes with a probation period of six months. Contract renewal is not guaranteed and is based on funding availability and performance, so there is some bit of uncertainty. So people have started to look for new jobs before the project winds up later this year.

There is also concern in Zambia that workers hired on a contract basis will not be sustainable when donor funding ends. Consider the Zambia Health Worker Retention Scheme, supported by several donors including the Global Fund and PEPFAR, which places health professionals in rural areas on three-year contracts. The scheme has successfully recruited and retained health workers, but it is almost wholly donor funded, leading to serious concerns about sustainability. The Global Fund's grant policies allow recipients to use the money for hiring health workers, though this is somewhat discouraged by guidance that favors recipients with existing capacity and proposals that demonstrate how salaries for new hires will be covered after the two- to five-year grant ends.

In all three countries salaries are paid as part of project costs, and in Mozambique and Zambia the Global Fund provides money to basket funding mechanisms used in hiring health workers. Global Fund money also can be used to fund new positions beyond specific project costs. In Mozambique common funding is used to hire new health professional graduates on short-term contracts intended to span the year or so that it would take for them to be absorbed into the civil service. When the contracts end, they will be absorbed into the public system only if the state budget can cover the additional costs. Even though expansion of the health workforce is a government priority, it will take several more years before the government can afford to cover additional recruits out of its internal resources.

Across all the Global Fund grants approved for the three countries, there are few cases of requests to create and fill specific health worker positions. One example is the round 2 proposal from Mozambique, which planned to use Global Fund money to pay for clinical teams at 50 service delivery sites and management teams at 11 provincial council offices. However, as Global Fund money goes into the general common funding pool that pays new hires for a short-term period, these specifics are somewhat meaningless.

While the World Bank has a policy of not paying for public sector salaries,[86] in Mozambique it funded new hires to work at provincial and national levels for Mozambique's National AIDS Commission. A World Bank official in Mozambique explains the World Bank's position on remuneration of health workers:

> The Bank does not pay salaries to public sector employees. However, for people who are specifically engaged in the activities of a project, the Bank may pay. For example, part of the staff working at the Secretariat of the [Mozambique National AIDS Commission] is paid by the Bank and by some other donors. But this is staff which is under short-term contract and not public sector employees who undertake other tasks for the government.

Recommendations

Because each country has its own macroeconomic constraints, it is difficult to make donor-specific recommendations. Where economic growth is projected to yield adequate resources to finance increased investments for health, donors can support government plans to hire workers within the broader outlines of national

86. Ooms, Van Damme, and Temmerman 2007.

human resources for health plans. That will make it easier for workers to be absorbed within the public health sector and a regulated private sector when donor projects end. For other HIV/AIDS-affected countries, where economic growth is unlikely to yield adequate resources to increase health sector spending in the foreseeable future, donors will have to work with countries over a longer time horizon.

To the AIDS donors and the national governments

The following joint recommendations reflect the need to take joint action on this issue.

- *Plan and negotiate for AIDS donor hiring to build long-term health workforce capacity.* HIV/AIDS has created a need for long-term chronic disease management and treatment. Currently, AIDS donors hire on special arrangements and for the short term because of administrative, political, and financial constraints to creating new capacity in institutions that will survive beyond the life of individual projects. Addressing the administrative, political, and financial constraints to expanding the health workforce is crucial for increasing the permanent capacity of the health workforces in Mozambique, Uganda, and Zambia. While governments and the broad community of global health donors have committed to addressing these issues through initiatives like the International Health Partnership+ compacts and the Joint Funding Platform for Health System Strengthening,[87] national governments need to provide leadership to ensure that AIDS donor support for health systems, especially funds for hiring health workers, translates into long-term improvements in health workforce capacity.
- *Plan for the end of positions supported with temporary financing.* If workers hired on short-term contracts for HIV/AIDS programs cannot be absorbed into the civil service or financed in other positions, what alternative pathways can be established to maintain this capacity in the health system? Could a program be developed to train and certify contract workers to start private practices? Could they go abroad, as planned migrant health workers? Health workforce strategies and human resources information systems need to explicitly recognize the temporary nature of donor-funded posts so that all stakeholders—national planners, facility managers, patients, and the workers themselves—can plan accordingly.
- *Push all donors to support a predictable financing channel for hiring.* Health workforce development is a precondition for achieving most priority health objectives, but it requires predictable long-term funding for developing health systems and covering recurrent costs. Unfortunately funding for health comes from dozens of donors tied to specific health objectives. Much of the international community—including the governments of Mozambique, Uganda, and Zambia—hopes to address these challenges through the International Health Partnership and Related Initiatives framework, an international effort to increase, harmonize, and align financing for health systems to support the national strategies of developing countries. Mozambique signed an International Health Partnership compact in 2008, Zambia is well on its way to signing one, and Uganda has begun the process.
- *Prioritize hiring plans when negotiating agreements with donors.* PEPFAR partnership frameworks, Global Fund proposals, and World Bank project approval documents all provide opportunities for AIDS donors, country governments, and civil society organizations to drive agreements for making donor financing more predictable and to enable its use to hire health workers, on and off budget and in and outside the public sector.
- *Encourage private sector participation in delivering HIV/AIDS and other health*

Active collaboration with the private sector would enable countries to increase the capacity of the health workforce and reach more people

87. Taskforce on Innovative International Financing for Health Systems 2009a; meeting notes, presentations, and other grey literature following progress on the Joint Health Systems Strengthening platform can be found at http://go.worldbank.org/GARPCRAEV0.

services. Pooled financing and government-led national planning should not mean a narrow focus on developing solely the public sector workforce. Active collaboration with the private sector would enable countries to increase the capacity of the health workforce and reach more people. In Zambia, faith-based facilities are a well integrated part of the national health system, reaching many underserved areas that government service cannot, a cooperative spirit that needs to expand to include other private providers. In Uganda much more needs to be done to foster cooperation and constructive government stewardship across public, private, and mission-based providers. Recognizing this constraint to health-system development, the Center for Global Development led the design of an advisory facility as a practical way for donors and technical agencies to support successful public-private interaction. The working group's report, and the eventual facility, is a source for governments, who would like to partner with the private sector to expand access to high-priority health services to underserved populations.

To the AIDS donors

- *Invest in a country's long-term plan for hiring and retaining new health workers, not just for HIV/AIDS.* Supporting long-term recurrent costs, such as salaries for permanent health workers, goes against many donors' policies for funding projects that can easily be transitioned to the government. Channeling funding through International Health Partnership frameworks or similar efforts will go a long way toward making financing more predictable and secure, prerequisites for planning for and using AIDS donor funding for sustainable health workforce hiring. Pooling funding into a coordinated mechanism could enable donors to increase financing of new health workers as demand for health care increases in all health programs, not just for HIV/AIDS.

The time is right for AIDS donors to work with countries to move from short-term to long-term solutions for the health workforce

4

By providing HIV/AIDS treatment to millions of Africans, AIDS donors and country governments have saved millions of lives. But these programs have added complexity to financing and implementing the HIV/AIDS response—managing a chronic disease while preventing new infections.[1] AIDS donors can no longer ignore the weak health workforce in many AIDS-affected countries. Their inputs into the health workforce have relied on short-term solutions focused on program needs. Continuing such practices will impede efforts to bring systemic and sustainable solutions to the health workforce crisis in many countries. Dealing with HIV/AIDS requires a long-term response and a larger, more efficient health workforce in many countries. Most countries cannot afford to do this using domestic resources alone. At the 2008 International AIDS Conference in Mexico City, the HIV/AIDS Monitor team encouraged AIDS donors to seize the opportunity to strengthen health systems while expanding AIDS programs,[2] and several others have made similar recommendations.[3] All three major AIDS donors have begun to respond.

Reform momentum

The U.S. President's Plan for AIDS Relief's (PEPFAR) June 2009 guidance, issued to countries for preparing fiscal 2010 Country Operation Plans, states that "there are several strategic approaches that PEPFAR is proactively applying to ensure that [U.S. government] investments build host country ownership and strengthen the capacity for a national response."[4] These approaches include the process and commitments of Partnership Frameworks, including policy reform in key areas; priority support for developing and retaining health workers in both public and nongovernment healthcare settings; and a focus on health systems strengthening. These approaches require coordinating U.S. government investments with other donor investments in the health sector and in other sectors and aligning them with national strategies. A recent collaborative health systems strengthening effort by the Global Fund to Fight AIDS, Tuberculosis and Malaria (the Global Fund), the World Bank, and GAVI Alliance indicates that these donors are consulting with a range of stakeholders to inform their next steps for collective action. A plan with elements of a "joint programming and funding platform" for health systems strengthening—and what this implies for each donor's funding models—is imminent.[5]

1. Ainsworth and Over 1997.

2. Oomman, Bernstein, and Rosenzweig 2008.

3. WHO Maximizing Positive Synergies Collaborative Group 2009; also see Taskforce on Innovative International Financing for Health Systems 2009a.

4. PEPFAR 2009b, p. 22.

5. World Bank n.d.

The six tasks and associated recommendations outlined in this report can inform donor planning and implementation in the shift from short-term project-based funding to long-term health systems support to achieve a range of health outcomes in addition to those focused on HIV/AIDS

Evidence-based recommendations

This strong policy reform momentum at the global level provides an opportunity to offer some evidence-based recommendations to donors. This report has identified six tasks and associated recommendations for AIDS donors and governments for individual and collective action to strengthen the health workforce component of health systems. These recommendations can inform donor planning and implementation in the shift from short-term project-based funding to long-term health systems support to achieve a range of health outcomes in addition to those focused on HIV/AIDS.

To move forward on these six specific tasks and to act on their specific recommendations, donors and countries need to take three key steps, now:

1. Connect national HIV/AIDS strategies with national human resources for health strategies

National HIV/AIDS strategies do not describe fully or explicitly the health workforce required for a national AIDS response. These plans must be developed in concert with national human resources for health plans, so that they work together to address staffing levels, worker distribution, worker skill mix, health workforce production needs and plans, and integration of community health workers. Rather than creating separate estimates and plans for HIV/AIDS, national plans should explain how the HIV/AIDS response will be served by the existing health workforce in countries. Health workforce projections should specify the levels and distribution of health workers planned for HIV/AIDS services (in full-time equivalent staff numbers) in line with national health sector planning and standards for staffing facilities. This will require strong government leadership by all ministries that make health workforce decisions, in concert with the private sector and donors that can provide technical support for developing effective national plans.

2. Establish information management systems for effective health workforce planning and management

All three countries need stronger human resources for health information management systems. Since government systems may cover only the public sector, regular and accurate data collection and analysis of private sector activities are also needed to inform planning. Donors can provide technical support to strengthen these systems and should also use the national systems for their own health workforce planning and reporting.

3. Plan donor health workforce inputs for HIV/AIDS programs in support of national plans

Donor efforts to scale up programs and to move from an emergency response to a sustainable response will depend largely on the strength and efficiency of the health workforce. This means that donors must consider existing and projected health workforce needs in accordance with broader development plans when preparing their HIV/AIDS program plans. PEPFAR can contribute by aligning its disease-specific project-based planning with national health workforce development plans. The Global Fund can encourage proposals that are fully aligned with national health workforce development plans. All three donors can improve planning capacity at various levels. They can continue to build capacity for creating and implementing national human resources for health plans, and they can build capacity among HIV/AIDS planners and their partners to implement the national plans.

Study methodology

ANNEX A

This annex explains why Mozambique, Uganda, and Zambia were selected for study and how data were collected.

Host country selection

Mozambique, Uganda, and Zambia were selected because they vary in size, HIV prevalence, development indicators, spread of the epidemic, and nature and strength of the government response and donor involvement. Despite these differences, their location in sub-Saharan Africa makes it possible to compare them in instructive ways.

To study how three major global AIDS donors address health workforce constraints in these three countries is to see how their policies are put to practice in countries experiencing different stages of the epidemic and with different social, political, and economic contexts. Although the sample of three countries is too small to support broader inferences, looking at donor practices in several countries that differ from one another in important ways can point to underlying patterns of behavior.

Country-level research

Research for this study was conducted by local partners in each country, including Austral-COWI Consulting in Mozambique, the Makerere University School of Public Health in Uganda, and the Economics Department of the University of Zambia. Field research was coordinated by a field director based in Nairobi, Kenya. The effort was managed and coordinated by the HIV/AIDS Monitor team at the Center for Global Development in Washington, DC.

A desk review of donor and national government documents and other relevant documents (such as program reports) noted the extent to which policy statements discussed plans for mobilizing health workers for government and donor programs, contributing to health workforce strengthening and development, or otherwise contributing to efforts to address the health workforce crisis in the three countries. This review pointed to government and donor initiatives and gaps that could be explored in interviews with key informants and major gaps in information that could impede the planned analysis. A clear understanding of the policy context was the foundation for the country partners' design of semistructured interviews.

Key informant interviews were conducted with donor officials, national and local government officials, funding recipients, and health facility managers in each country. Key informants were selected for their specialized knowledge of donor approaches to the health workforce in their policies and programs and the implications for the health workforce. Specific criteria were determined by country research teams. Because of differences in health networks across countries, each country partner determined the most appropriate strategy for selecting districts, local officials, and facilities for manager interviews. Partners in Mozambique focused on one urban and one rural province, interviewed officials on the provincial health directorates, and selected facilities of different sizes and service provision levels. Partners in Uganda selected five districts that differed in average income, interviewed district health officers and district human resources managers, and selected facilities that differed

in ownership (public sector, private not-for-profit, and private for-profit), service provision level, and size. Partners in Zambia identified six districts where the three donors had active programs and interviewed officials on district health management teams and managers at district hospitals and in five randomly selected health centers in each district.

Key informant interviews classified by donor, analytical level, respondent position,

Table A1 Mozambique key informant details

Organization	Analytical level	Number of interviews
U.S. President's Emergency Plan for AIDS Relief (PEPFAR)	Donor officials (Centers for Disease Control and Prevention and U.S. Agency for International Development)	4
	Representatives of recipient organization 1	2
	Representative of recipient organization 2	1
	Representative of recipient organization 3	1
	Representative of recipient organization 4	1
	Representative of recipient organization 5	1
Global Fund to Fight AIDS, Tuberculosis and Malaria[a]	Donor official (Country Coordinating Mechanism representative)	1
Multi-country HIV/AIDS Program for Africa (MAP) of the World Bank	Donor official	1
	Recipient organization representative	1
Ministry of Health	National government representatives (health)	8
Mozambique National AIDS Commission	National government representatives (HIV/AIDS)	2
Maputo Province Health Directorate	Local government representatives (rural)	2
Maputo Town Health Directorate	Local government representative (urban)	1
Health facilities	Management of facility 1	1
	Management of facility 2	1
	Management of facility 3	1
	Management of facility 4	1
	Management of facility 5	2
	Management of facility 6	1

a. Financing from the Global Fund went to the common funds managed by the Ministry of Health, National AIDS Council of Mozambique, and provincial health directorates.
Source: Authors' compilation.

Table A2 Uganda key informant details

Level of implementation	Category	Subcategory	Number of interviews
District	District health office and human resources office	Public	6
Health facility managers	Facility for reproductive health services	Nongovernmental organization Government Private not-for-profit	4
	Facility for HIV/AIDS services	Nongovernmental organization Government Private not-for-profit	4
	Facility for general health services	Nongovernmental organization Government Private not-for-profit	7
Ministry of Health	Officials in general and human resources–specific planning positions	Health planners	3
Donor level	HIV/AIDS subrecipient level managers	Program managers	7
	Reproductive health managers	Program managers	3
	Project officials of health workforce projects (supported by PEPFAR, the Global Fund, and the European Union)	Donor officials	3

Source: Authors' compilation.

Table **A3** **Zambia key informant details**

Organization	Analytical level	Number of interviews
University	Global Fund Country Coordinating Mechanism member	1
National nongovernmental organization	Representative of Global Fund recipient organization	1
National nongovernmental organization	Representative of PEPFAR recipient organization	1
World Bank	Representative of the World Bank	1
National government	Government representative, human resources specialist	1
National government	Government representative	1
Multilateral agency 1	Human resources specialist	1
Multilateral agency 2	Human resources specialist	1
Bilateral donor	Human resources specialist	1
District government 1	District government representative	1
District government 2	District government representative	2
District government 3	District government representative	1
District government 4	District government representative	1
Health facility 1	Management of facility	1
Health facility 2	Representative of facility	1
Health facility 3	Representative of facility	1
Health facility 4	Management of facility	1
Health facility 5	Representative of facility	1
Health facility 6	Management of facility	1
Health facility 7	Management of facility	1
Health facility 8	Management of facility	1
Health facility 9	Management of facility	1
Health facility 11	Management of facility	1
Health facility 12	Representative of facility	1
Health facility 13	Management of facility	1
Health facility 14	Management of facility	1
Health facility 15	Management of facility	1
Health facility 16	Management of facility	2
Health facility 17	Management of facility	1
	Representative of facility	2
Health facility 18	Management of facility	1
	Representative of facility	1
Health facility 19	Management of facility	1
Health facility 20	Management of facility	1
Health facility 21	Management of facility	1
Health facility 22	Management of facility	1
Health facility 23	Representative of facility	1
Health facility 24	Management of facility	2
Health facility 25	Representative of facility	1
Health facility 26	Management of facility	1
Health facility 27	Management of facility	1
Health facility 28	Management of facility	1
Health facility 27	Representative of facility	1
Health facility 28	Management of facility	1
Health facility 29	Management of facility	1
Health facility 30	Management of facility	1

Source: Authors' compilation.

and number of interviews are shown in tables A1 (Mozambique), A2 (Uganda), and A3 (Zambia).

Ethics approvals were granted by local and international ethical review boards before the research was undertaken, and a verbal informed-consent process was used before any data were gathered. Interviewers—all with interviewing experience—were trained in using the data collection instruments. Senior researchers interviewed senior staff at donor organizations, recipient organizations, and national governments.

Semistructured interview guides were developed by the research teams and adapted to country contexts for each type of key informant. Thus for each donor, instruments were tailored to recipient organization key informants, subrecipient organization key informants, government key informants, and health facility key informants.

Data collection instruments broadly sought qualitative and quantitative evidence on human resources availability and needs in the country, the health sector human resources policies of host governments, the health sector human resources policies and programs of the three donors, coordination between the donors and the host government, and the effects of donors on the health sector labor market. Information was validated by triangulating the data from several key informant interviews with evidence from documents.

To ensure accuracy, a draft of this report was reviewed by technical experts and representatives from each donor organization included in the study.

Study limitations

Mozambique, Uganda, and Zambia were selected to illustrate how donor practices vary with the country context. Both the small size of the sample and the purposive sampling method mean that the study findings cannot be fully generalized to other countries. Still, some findings could reflect similar circumstances in other African countries that resemble any of the study countries. And the recommendations suggest actions that would be useful in most contexts.

Information is sometimes uneven across countries or donors. That can reflect data availability, difficulties accessing data, and varying donor models and country contexts, which cause heterogeneity in the data. For example, the MAP ended in Uganda in 2006 and had just ended in Zambia in 2008, so some information on its activities was difficult to locate—particularly in Uganda. Time constraints, too, limited the ability of country research teams based in urban centers to gather data in distant areas.

The report describes donor strategies to mobilize health workers for their HIV/AIDS programs and a range of challenges and opportunities related to these efforts. The aim of such a descriptive analysis is to determine how donors can address the health workforce crisis while achieving their program objectives. The report cannot fully evaluate how donor efforts affect the health workforce in each study country. The relationship between donor efforts and health workforce needs or the health workforce crisis is important, but reliable data on that relationship are lacking.

Human resources for health projection models

ANNEX B

This annex is drawn directly from McQuide, Stevens, and Settle (2008).

Needs-based approaches. Needs-based approaches estimate future health workforce needs based on the projected health service needs (both met and unmet) of the current population, adjusted for age and gender.

Utilization-based approaches. Utilization-based approaches (demand-based approaches) project future health service requirements based on present health service utilization.

Health workforce-to-population ratio. A health worker-to-population ratio estimates the current ratio as well as the desired future ratio of doctors to population and of other health professionals to doctors.

Service target-based approaches. Target-based approaches set targets for specific health care services, based on health worker supply or health services demand. . . . Targets are created using information about current services provided, technologies in use, demand and expert opinion.

Adjusted service target-based approaches. Adjusted service target-based approaches are useful for specific health intervention programs. Targets are established based on priority health services needs, as determined by population demographics, expert opinion, and the incidence and prevalence of health problems. Specific interventions addressing priority needs are identified and functional job analyses are used to determine the health worker skills required to carry out each intervention. Health worker time requirements are also estimated and converted into full-time equivalents for each intervention.

Facilities-based approaches. Facilities-based approaches range from simple to complex methods of target-setting for health care facilities. Thomas Hall has described a sector-level, facilities-target approach focused on improving individual health center capacity, facility mix, geographic distribution of health care facilities, and adjustments to the private-to-public sector ratio (2001). Targets are founded on staffing standards in each type of facility, student-to-faculty ratios, the quantity of public health personnel, and funding levels required to pay salaries.

ANNEX C Comparison of donor payments to health workers and managers

Category	The U.S. President's Emergency Plan for AIDS Relief (PEPFAR)	The Global Fund to Fight AIDS, Tuberculosis and Malaria (the Global Fund)	Multi-country HIV/AIDS Program for Africa (MAP) of the World Bank
Who they pay	PEPFAR recipient and subrecipient organizations employ health workers directly and indirectly for their programs, including the staff of U.S. government agencies, national nongovernmental organizations, health workers in government-run health facilities, community health workers, and peer educators.	The Global Fund employs a similar range of health workers as PEPFAR, though it does not fund U.S. government agency staff and it employs more national government staff in its programs. Hiring under Global Fund grants depends largely on the recipient organization and the type of people it would normally employ.	The MAP works quite differently from PEPFAR and the Global Fund. Funding is used only for short-term project-based employment, such as the hiring of consultants to provide technical assistance; the short-term employment of staff in national AIDS councils; and the distribution of small grants to community initiatives for projects. Few facility-based health workers are employed with MAP funding, though some have been hired as trainers.
What they pay	PEPFAR pays salaries and incentives for project staff within recipient and subrecipient organizations, temporary salaries and incentives for facility-based health workers and government-based health managers and planners, and incentives for community health workers. Also invests in infrastructure, equipment, and training for HIV/AIDS services, which act as additional incentives.	Grants from the Global Fund can be used to pay anyone anything. In Mozambique, for example, grants have gone into the health sector common fund, which pays for temporary salaries and incentives of government health workers, expatriate doctors, and others, all off budget. In Zambia grants go into a government basket fund and to nongovernment entities and are used in unknown ways to pay salaries and incentives. Also invests in infrastructure, equipment, and training for HIV/AIDS services, which act as additional incentives.	The MAP will not pay for ongoing recurrent costs, (though in Mozambique they pay government salaries for National AIDS Commission staff), so it pays mainly for procurement of services through short-term contracts. Also invests in infrastructure, equipment, and training for HIV/AIDS services, which act as additional incentives.
How they pay it	PEPFAR funding flows to recipient and subrecipient organizations—only occasionally government entities—which decide how to compensate those they mobilize for their programs. Most payments to government employees happen through negotiations between the particular recipient and subrecipient organizations and the government agency, and all remain off budget. There are a few exceptional examples of PEPFAR funding going to host government agency recipients, such as for the Zambia Health Worker Retention Scheme.	Following the Global Fund proposal, funding is disbursed to the prime partner who signs the grant and is responsible for any spending. Prime partners and their subpartners pay salaries and incentives according to their own policies, but this is generally off budget.	Any payments from the MAP follow World Bank procurement control over how money granted to community initiatives is spent.

Source: Authors' compilation.

The evolution of support for health systems strengthening by the Global Fund to Fight AIDS, Tuberculosis and Malaria

ANNEX D

In early funding rounds (1–4) the Global Fund to Fight AIDS, Tuberculosis and Malaria (the Global Fund) provided loose encouragement for health system strengthening to improve malaria, tuberculosis, and HIV/AIDS outcomes. The Technical Review Panel, a group of independent global health experts who decide which proposals to fund, reported to the Global Fund Secretariat that health system strengthening components of grants were disappointing. In round 2 human resources issues were seen as a major constraint to the feasibility of grants.[1] In round 3 the Technical Review Panel suggested that round 4 explicitly ask how human capacity to implement the program would be developed over time.[2] In round 4 the panel expressed concern about the ambiguity of whether the Global Fund would support general health systems support that went beyond the three diseases.[3]

This experience over the first four rounds led the Secretariat to introduce a new component for health systems strengthening. Countries could submit a proposal for health systems strengthening that was separate from a disease-specific proposal if the activities contributed to disease-specific outcomes. Only 10 percent of such proposals were approved. Most proposals were too vague, with uncertain links to disease-specific outcomes. The Technical Review Panel reported many problems with the health systems strengthening component and resulting applications:[4] the language on health systems strengthening in the guidelines and on the proposal form was too vague, the proposal form was designed for disease-specific components and not health systems strengthening components, and the Global Fund was still not clear about which health systems strengthening activities it would fund. The panel also posited that the Country Coordinating Mechanisms and the panel itself lacked the health system knowledge to adequately develop and evaluate health systems proposals.

For round 6 the Secretariat reintegrated health systems strengthening into the disease-specific components and specified which health systems strengthening activities the Global Fund would support.[5] However, the Technical Review Panel again reported that the health systems strengthening elements of proposals were too broad and ambitious, often with vague objectives and proposed activities and poor work plans and budgets. The panel maintained that despite the round 6 guidelines, "the Global Fund has yet to clearly define the scope and extent of activities that it is willing to fund under the rubric of [health systems strengthening] activities."[6]

The Secretariat then developed 15 health systems strengthening strategic actions—broad categories of activities from policy

1. Global Fund 2003a.
2. Global Fund 2003b.
3. Global Fund 2004.
4. Global Fund 2005.
5. Global Fund 2006a.
6. Global Fund 2006b, p. 26.

research to human resources—and expanded guidelines to clarify how applicants should incorporate requests for health systems strengthening support. New sections were developed for the proposal form to encourage requests for support of these health systems strengthening strategic actions.[7] However, the Technical Review Panel still reported weak health systems strengthening components of proposals, often focused on downstream activities for service improvements rather than on more fundamental systemic improvements. The panel recommended that the Global Fund and its partners provide more technical assistance to countries and that health systems strengthening experts and planners be involved in proposal development.[8]

The Secretariat took up this advice for round 8, producing a fact sheet on health systems strengthening, expanding the guidelines, creating a dedicated section on the form for requests for cross-cutting health systems strengthening support, and providing greater technical assistance to countries to develop the health systems strengthening components of their proposals. According to the Technical Review Panel report, these efforts seem to have improved the health systems strengthening requests, though there was still room for improvement in the guidelines, design of the form, and quality of proposals. The panel found that too little space was allocated on the form and that reviewing the health systems strengthening requests took too much time. The panel also found that countries did not refer to evidence about health system weaknesses and gaps or clearly develop health systems strengthening objectives, proposed activities, and performance indicators. Most proposals focused on training, though all the areas mentioned on the proposal form were represented. The Technical Review Panel observed that health systems strengthening components had a strong focus on disease-specific outcomes, indicating that applicants believed that they had to restrict their health systems strengthening proposals to the three diseases.

In the latest round 9 guidance, the Global Fund again emphasized its commitment to funding health system strengthening.[9] Following the World Health Organization, the guidance defines "a well-performing health workforce that is responsive, fair and efficient in achieving the best health outcomes possible, given available resources and circumstances" as an essential building block.[10] Health system strengthening can either be integrated into disease-specific components or can be cross-cutting. The round 9 guidelines include such specific interventions to strengthen the production of health workers as preservice and in-service training, strengthening of workforce management, appropriate incentives for distribution and retention, and task-shifting.[11]

Also new with round 9, the Global Fund is integrating its National Strategy Application initiative, which encourages countries to base their applications on their costed national strategies. The Global Fund hopes that this initiative will lead to increased country ownership, a common focus on managing for results and mutual accountability, improved alignment with country priorities and national timeframes, greater harmonization of funder approaches to financing, and reduced costs. It is too early to say how this initiative will change the nature of Global Fund interventions in a country, but it does raise questions about how harmonized national HIV/AIDS strategies are with national health workforce development strategies.

7. Global Fund 2007a.

8. Global Fund 2007b.

9. Global Fund 2008a.

10. Global Fund 2008a, p. 1.

11. Global Fund 2008a.

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