WORLD ECONOMIC FORUM

COMMITTED TO IMPROVING THE STATE OF THE WORLD

From Funding to Action:

Strengthening Healthcare Systems in Sub-Saharan Africa

WHITE PAPER FOR CONSULTATION

World Economic Forum White Paper
Centre for Public-Private Partnership
Global Health Initiative

Author

This white paper is written by Neelam Sekhri, Chief Executive Officer, The Healthcare Redesign Group Inc., USA.

Acknowledgements

This white paper is the product of collaboration with many individuals and organizations, including speakers and participants in two workshops held in Nairobi, Kenya, and Gaborone, Botswana, those who agreed to be interviewed for this World Economic Forum project and others who generously volunteered their time to serve as reviewers. The author would particularly like to thank Jed Beitler and Deborah Fletcher, and Krista Thompson and Robert Walgate for writing the case studies in *Section IV* and providing valuable input into the report and discussions. The report has also benefited greatly from the insightful comments and contributions of Richard Burzynski of the International Council of AIDS Service Organizations, Gary M. Cohen of Becton Dickinson and Company (BD), Ernest Darkoh of BroadReach Healthcare, Timothy Goodman of Pfizer Inc., Donné Newbury of Bristol-Myers Squibb Company, Jean-Olivier Schmidt of the Deutsche Gesellschaft für Technische Zusammenarbeit, Stephanie Simmonds of the London School of Hygiene and Tropical Medicine, Michael Smalley of AMREF, Jeffrey Sturchio of Merck & Co., Inc., Phyllida Travis of the World Health Organization and Sebastian Wanless of Bristol-Myers Squibb Company.

Finally, we are extremely grateful for the contributions and innovative graphics of the team at Sudler & Hennessey. We are also grateful to all of those who worked with us to make the workshops a success, including Dr Betukumesu Bilonda of Nazareth Hospital, Jeanne Brosnan of BD, Rozett Phillips of Accenture Technology Solutions and Bert Voertberg of the World Bank.

WORLD ECONOMIC FORUM

COMMITTED TO IMPROVING THE STATE OF THE WORLD

Table of Contents

Preface

At the World Economic Forum's Centre for Public-Private Partnership, we seek to provide a neutral platform for catalyzing public-private dialogue and partnerships to improve the state of the world. In health, we started our engagement through the Global Health Initiative (GHI) nearly five years ago. Today, the GHI is active in three continents, has the largest public-private network in the world and works to engage, broaden and deepen private sector engagement in new public-private partnerships (PPPs) for HIV/AIDS, tuberculosis (TB) and malaria. Building on this success, in parallel to the GHI, the Forum last year launched the Healthcare Industry Partnership Programme. This programme focuses on developing a strong community of engaged business leaders in the healthcare sector who are ready to invest time and resources to act on selected world issues. It is at the intersection of these two initiatives—the GHI and the Healthcare Industry Partnership Programme—that the idea for this white paper and workstream was generated.

Despite increased funding, better technology and increased political commitment in the fight against HIV/AIDS, tuberculosis and malaria, further thinking and additional practical steps are needed to ensure that the fight against these diseases will also benefit the underlying healthcare systems of developing nations. Now that the funding is there for disease-specific programmes, how can we scale them up and ensure they are sustainable? How can we ensure patients' access to treatment (particularly in remote locations)? How do we develop cost-effective treatment delivery strategies? And how can different stakeholders—public and private—work together to build the needed healthcare systems?

To find answers to some of these questions, we decided to foster a dialogue on health systems between the public and private sectors. Leveraging the World Economic Forum's convening power, we ran two multistakeholder workshops in Sub-Saharan Africa to understand the issues better and identify strategic opportunities to involve the private sector in support of the development of healthcare systems. This white paper for consultation summarizes the findings from these workshops. A consensus emerged that there is a big role for the private sector to play. We are hopeful that we can turn some of these ideas into action in the second phase of the project.

We would like to thank Neelam Sekhri for her work in writing this white paper, Robert Walgate for his inspiring workshop summaries and Tanya Mounier for managing this innovative project so effectively. Francesca Boldrini, the Director of the GHI, deserves special recognition for her vision and leadership in designing and initiating this project. We would also like to thank Becton Dickinson and Company, Merck & Co., Inc., and Sudler & Hennessey for their financial or in-kind support for this first phase of the project. Finally, the Forum is grateful to the more than 60 enthusiastic and hard-working participants of these workshops. Their insights greatly informed this white paper. In many cases, their contributions extended beyond the workshops and included the sharing of case studies and other experiences, as well as a commitment to engage in subsequent work in partnership with the Forum.

Rick Samans
Managing Director
Centre for Public-Private Partnership
World Economic Forum

Preface

In the developed world, access to basic health services and the existence of a functioning health system are taken for granted by most of the population. The situation is different in Sub-Saharan Africa, due to fundamental limitations in funding, staffing, training and other manifestations of essential infrastructure.

This reality is compounded by the prevalence of infectious disease in Africa, which is disproportionately high compared with any other region of the world. The combined impact of these conditions is that residents of Africa have the world's shortest life expectancy. Struggling economies are being sabotaged by high mortality rates among the most productive segments of the population. This has created a vicious cycle of disease and poverty, undermining effective efforts to pursue economic development.

Fortunately, there has been a marked increase in intervention and support for Africa over the past six years. This has saved countless lives and has given new hope to people who would otherwise have faced certain death. The emergence of accessible treatment has also provided stimulus for prevention efforts, based on the simple logic that if people have access to treatment, they also have an incentive to determine and act upon their health status.

A primary thrust of these interventions has been the provision of vitally needed pharmaceuticals, such as antiretrovirals for HIV/AIDS, to people who otherwise had no access. This will remain critical, but it is far from sufficient. The lack of healthcare infrastructure and capacity in Sub-Saharan Africa is a more fundamental barrier—one that may soon inhibit the ability to deploy further increases in funding. The series of interventions that occurred over the past six years need to be regarded as a first stage which addressed the ***symptoms*** of insufficient healthcare capacity in Africa. It is now time to begin addressing the ***causes***.

One example is laboratory services. The provision of drug therapy in the absence of diagnostic testing—used as a quality control to know when drugs should be administered and whether they are working—is a potentially dangerous proposition. Already in Sub-Saharan Africa there is widespread drug resistance among TB patients. Even today, the methodology most commonly used in Africa to diagnose TB is over 120 years old. Resistance to first-line therapies for HIV/AIDS and malaria is also emerging. One can only imagine the consequences of massive drug resistance to these three diseases in Africa. Laboratory capabilities and infrastructure will be essential for preventing this.

Among the mechanisms for building vitally needed infrastructure in Africa, PPPs can play a critical role. With this in mind, Becton Dickinson and Company is responding through cross-sector collaboration in the areas of advocacy, knowledge transfer, training, funding and volunteerism. BD is also creating access to vitally needed technology on an affordable and sustainable basis. This white paper identifies additional opportunities for private sector engagement. We encourage other companies to take similar measures.

The goal of improving the health and well-being of the citizens of Africa is achievable. In our view, there is no practical alternative other than to devote all necessary efforts across the public and private sectors toward this goal.

Gary Cohen
President
BD Medical,
Becton Dickinson and Company (BD)

Executive Summary

The alarming statistics speak for themselves. A child born in Niger today is 40 times more likely to die before her fifth birthday than a child born in the United Kingdom. A 15-year-old boy in Swaziland has only an 18% chance of celebrating his 60th birthday; if he had been fortunate enough to have been born in Switzerland, he would have a 91% chance. A young woman in Uganda is 300 times more likely to die in childbirth than her sister in the United States.

The impact of poor health on economic growth and political stability in Sub-Saharan Africa has been devastating; two African heads of state have predicted that their countries will cease to exist if HIV/AIDS is not brought under control. More than 300 million people—nearly half the population—live on less than US$1 a day. While the rest of the world is expected to meet many of the Millennium Development Goals for health by 2015, Sub-Saharan Africa remains the only region which is not on track to achieve a single one.

These statistics do not tell the whole story, though: there is much good news to celebrate. Many African governments have created political, economic and social conditions that have welcomed and challenged the international community to respond to global concerns of poverty and economic development on the African continent. Driven in large part by political leadership, new treatments have been discovered, new diagnostics have been developed and new funding mechanisms—such as the Global Fund to Fight AIDS, TB and malaria, the Global Alliance for Vaccines and Immunizations, and the US President's Emergency Plan for AIDS Relief—have been created to channel unprecedented amounts of money toward the health needs of Africans.

Weak health systems are one of the chronic problems that have prevented major health gains and economic development in the region. Millions of people cannot access basic health services either because they cannot afford them or because quality services simply do not exist in their communities.

The formal health system has found itself at times disconnected from these poor health communities. New funding can help by improving health systems capacity in human resources, facilities and care processes, particularly for poor and vulnerable populations. But countries are often caught in a catch-22, where the very weakness of their health systems makes absorption of large amounts of money painfully slow and difficult.

Opportunities for Collaborative Action

Many public and private players have invested in healthcare systems in Africa. Good practices exist in the field as demonstrated by a number of cases in *Section IV* of this white paper.

With the dramatic increase in donor and foundation resources, the key question now is, "How can we learn from these success stories and scale them up in a sustainable manner so that they become integrated into the fabric of the health system, improving care for millions of people, not just for a few fortunate communities?"

This challenge of strengthening healthcare systems in Sub-Saharan Africa presents a strategic opportunity for collaboration among multiple players to leverage their unique skills, competencies, roles and resources towards improving healthcare for millions of people.

The Global Health Initiative of the World Economic Forum launched this project in September 2005 to capture and frame some of the private sector's strategic opportunities, building on its unique access to a wide range of stakeholders and deep experience in healthcare. The idea in this first phase of the project was to leverage the good work done in the field and avoid duplication while finding new ways to mobilize the resources and capabilities of more public and private sector stakeholders through innovative PPPs.

The second phase of the project will begin at the World Economic Forum on Africa Summit in Cape Town in May/June 2006, and will be followed by a six-month period of broad consultation, during which the Global Health Initiative of the World Economic Forum will serve as a catalyst to encourage all sectors to identify and build consensus on concrete strategic opportunities that can be further developed and implemented.

The global community finds itself in an enviable position today. After decades of steady pleas for more financial resources to address the health problems of men, women and children living in Sub-Saharan Africa, there is now an infusion of money and strong political and business commitment to solving these problems. Let us work together expeditiously and effectively to fulfill the promises that have been made.

I. Introduction

The Changing Environment in Sub-Saharan Africa

The statistics are alarming. A child born in Niger today is 40 times more likely to die before her fifth birthday than a child born in the United Kingdom.[1] A 15-year-old boy in Swaziland has only an 18% chance of celebrating his 60th birthday; if he had been fortunate enough to have been born in Switzerland, he would have a 91% chance.[1] A young woman in Uganda is 300 times more likely to die in childbirth than her sister in the United States.[2] The impact of poor health on economic growth and political stability in Sub-Saharan Africa has been devastating; two African heads of state have predicted that their countries will cease to exist if HIV/AIDS is not brought under control. More than 300 million people—nearly half the population—live on less than US$1 a day.[3]

What these statistics do not reveal is that there have been significant changes in healthcare in Sub-Saharan Africa in the past five years. On the positive side, new treatments have been discovered, new diagnostics have been developed and new funding mechanisms—such as the Global Fund to Fight AIDS, TB and malaria (Global Fund), the Global Alliance for Vaccines and Immunizations and the US President's Emergency Plan for AIDS Relief (PEPFAR)—have been created to channel unprecedented amounts of money toward the health needs of Africans.

These initiatives have been driven in large part by the political leadership of many African governments, who have created political, economic and social conditions that have welcomed and challenged the international community to respond to global concerns of poverty and economic development on the African continent. Collaborative efforts by African leaders, African and multinational businesses and groups such as the New Economic Partnership for African Development have all helped to make Africa a priority focus for the World Bank and, along with the support of UK Prime Minister Tony Blair, to champion the write-off of US$140 billion in debt of 14 African nations.

Despite this progress, the health status of those who live in Sub-Saharan Africa continues to be among the worst in the world. Even in Botswana, a middle-income country whose government spends the same amount on health as Malaysia (US$218 per capita[a]),[4] the life expectancy is only 40 years, compared to 72 years in Malaysia.[2] While the rest of the world is expected to meet many of the Millennium Development Goals (MDGs) for health by 2015, Sub-Saharan Africa remains the only region which is not on track to achieve a single one.[3]

Weak health systems are one of the chronic problems which have prevented major health gains and economic development in the region. Millions of people cannot access basic health services either because they cannot afford them or because quality services simply do not exist in their communities. The formal health system has found itself at times disconnected from these poor communities. New funding can help by improving the capacity of health systems, notably by boosting human resources, facilities and care processes, particularly for poor and vulnerable populations. But countries are often caught in a difficult situation, where the very weakness of their health systems makes absorption of large amounts of money painfully slow and difficult.

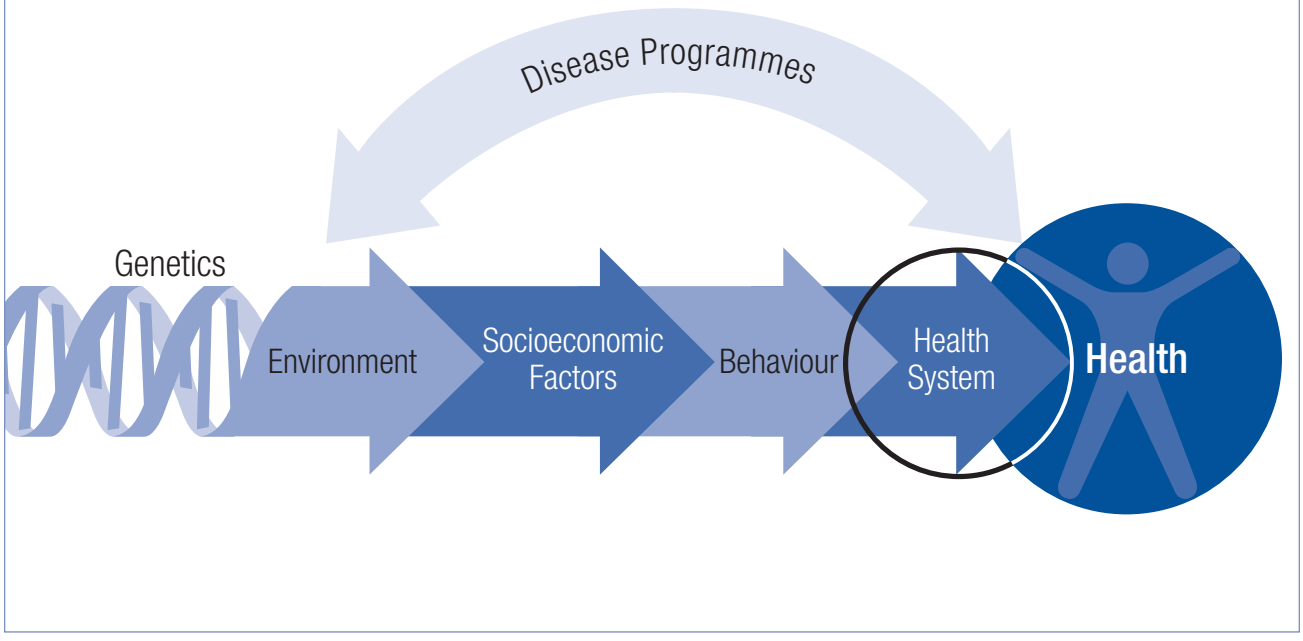
Health and Health Systems

> *"Prevention is integral to any well-functioning healthcare system. A healthcare system informed by a prevention-driven definition of health will look a lot different than a healthcare system informed by a cure-driven definition."*
>
> Hank McKinnell, CEO and Chairman, Pfizer Inc.[5]

Health systems are a means to achieve the goal of improving health through organizing, financing and ensuring the quality of health services. Other factors, such as genetics, environment, socioeconomics or behaviour, may play an equal or even more important role in health status.[6] How well the health system performs its role, though, can make the difference between life and death. In the case of malaria, which, for example, is the number one killer

[a] All expenditures, unless otherwise noted, are in international dollars, ie, adjusted for purchasing power parity.

Figure 1. What Determines Health?



of children under five years of age in Sub-Saharan Africa, the three proven interventions to control the disease are: indoor spraying with insecticides; sleeping under insecticide-treated bed nets; and early diagnosis and treatment once the child displays the symptoms. The care system is most critical in the final intervention—it must provide quick diagnosis of the disease and rapid access to effective medications to treat it. Of course, preventing the disease by changing the environment and behaviour is better than treating it once it occurs. But treating it quickly and effectively once it **does** occur can define whether the child lives or dies.

As the experience with malaria shows, disease programmes must look beyond health interventions and health systems. In order to impact health, these programmes must be strengthened.[7]

Prevention is also an important component of health—and health systems should encompass both prevention and treatment. The case of HIV/AIDS demonstrates the mutual dependency of prevention and treatment. HIV/AIDS is the single largest killer of people in Sub-Saharan Africa, accounting for more than 20% of all deaths in 2000.[3] Before treatment with antiretroviral drugs (ARVs) became available, it was very difficult to encourage people to come for screening and testing. Why should they? They would only be told whether they had a death sentence—a disease for which they could not access treatment. The availability of treatment has changed this. Reports from the field show an increasing demand for testing and greater resolve on the part of governments to address the issue of stigma. Those who find they are HIV-positive have access to life-prolonging drugs; those who are HIV-negative can be taught behaviours that will keep them free of disease. "Treatment . . . really mobilized people around a response," says Ernest Darkoh, Chairman of BroadReach Healthcare, who worked on Botswana's ARV programme as part of a groundbreaking PPP between the Merck Company Foundation, the Bill and Melinda Gates Foundation and the Government of Botswana *(see Section IV, Case 3).*

Indeed, the role of health systems in prevention goes further. Health systems are the primary means of delivering immunizations, which are the main

approach to prevention of many infectious killers. For chronic diseases, health systems not only offer treatment, but through effective disease management can also postpone or prevent more serious consequences. However, the ability to manage chronic illnesses through the entire continuum of care (such as from prevention to palliative care at home, in clinics, in hospitals and within communities) over the lifetime of the patient requires health systems that are flexible enough to include a wide range of providers, ranging from doctors and nurses to community health workers, as well as social service volunteers and family members. These are challenges for the most well-funded systems; they are particularly difficult in resource-poor settings in Sub-Saharan Africa.

Figure 2. Global Burden of Disease Estimates for Sub-Saharan Africa, 2000

	Cause of death	Deaths (%) out of total number of 10,778,044
1	HIV/AIDS	20.4
2	Malaria	10.1
3	Lower respiratory infections	9.8
4	Diarrhoeal diseases	6.5
5	Perinatal diseases	5.1
6	Measles	4.1
7	Cerebrovascular disease	3.3
8	Ischaemic heart disease	3.1
9	TB	2.8
10	Road traffic accidents	1.8
11	Pertussis	1.6
12	Violence	1.2
13	COPD	1.1
14	Tetanus	1.0
15	Nephritis and nephrosis	0.9
16	Malnutrition	0.9
17	War	0.8
18	Syphilis	0.8
19	Diabetes mellitus	0.7
20	Drownings	0.6
21	All other specific cases	23.2

Source: Jamison DT, et al. *Disease and Mortatlity in Sub-Saharan Africa. Executive Summary*. The World Bank. 2006.

Opportunities for Collaborative Action

Many African governments, communities, businesses, international agencies and nongovernmental organizations (NGOs) have invested in improving health systems in Africa. Some pilot programmes and good practices exist, but they have not had the wide-scale impact that is possible. With the dramatic increase in resources, a key question now is how these models can be identified, scaled up and sustained to deliver the quality and quantity of services needed.

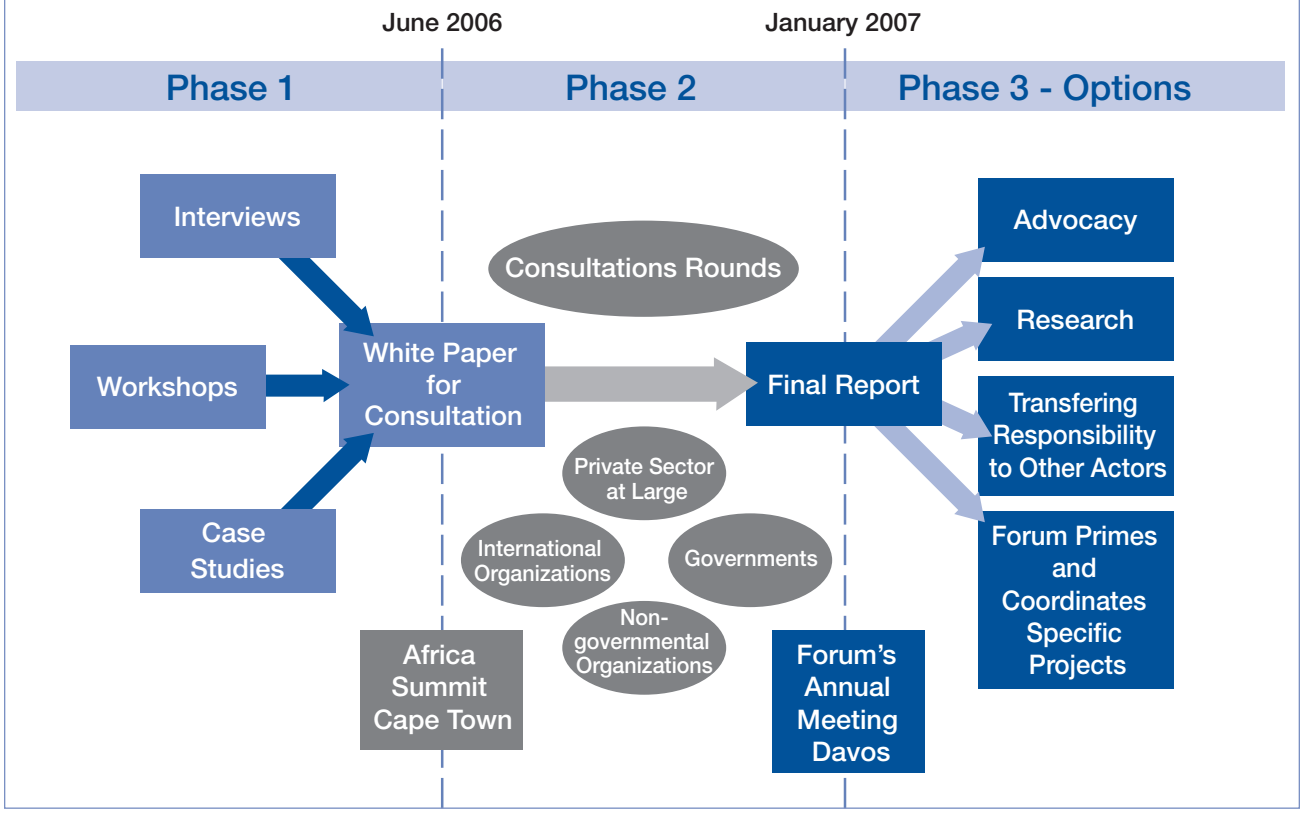
This challenge of African healthcare systems presents a strategic opportunity for collaboration among multiple players to leverage their unique skills, competencies, roles and resources towards improving healthcare for millions of people in Sub-Saharan Africa.

Leveraging Multistakeholders' Competencies and Resources

The Global Health Initiative (GHI) of the World Economic Forum launched a new project in September 2005 to capture and frame some of the private sector's strategic opportunities, leveraging its unique access to a variety of stakeholders and deep expertise in health. In particular, this project aims at stimulating thinking by multiple stakeholders, focusing on the role of business in relation to the strengthening of healthcare systems in Sub-Saharan Africa. The idea was to build on the good work already taking place in the field while avoiding duplication and finding new ways to mobilize the resources and capabilities of more public and private sector stakeholders through innovative public-private partnerships.

This white paper is the result of the first phase of this project. It has benefited from the insights generated in two multistakeholder workshops held by the World

Figure 3. **Process for Multistakeholder Engagement in Healthcare Systems in Africa**



Economic Forum, in Nairobi, Kenya, in December 2005 and in Gaborone, Botswana, in April 2006, and from a number of interviews undertaken at the Forum's 2006 Annual Meeting in Davos, with high-level policy-makers and business leaders *(see Figure 3).*

The second phase of the project will begin at the World Economic Forum on Africa to take place in Cape Town in May/June 2006 and will be followed by a six-month period of broad consultation. During this period, GHI will serve as a catalyst to encourage all sectors to identify and build consensus on concrete opportunities that can be further developed and implemented *(see Figure 3).*

The first three sections of this paper provide an overview of what is known about health systems in Sub-Saharan Africa and summarize four key challenges identified by participants of the project workshops. *Section IV* presents a few examples of collaborations that have successfully addressed these challenges. The final two sections identify strategic opportunities for businesses to contribute to improving health systems through PPPs.

II. Health Systems in Sub-Saharan Africa: What Do We Know?

> *"Health systems have a responsibility not just to improve people's health but to protect them against the financial cost of illness—and to treat them with dignity."*
>
> *The World Health Report 2000: Health Systems: Improving Performance*[8]

While everyone seems to agree that health systems in Sub-Saharan Africa need to be strengthened, what does this really mean? More importantly, how will success at improving them be measured?

While empirical experience can provide some indication of how well health services work, systematically measuring the performance of health systems is not so easy. Traditional indicators of health status, such as life expectancy and infant mortality, provide a good idea of the health of the population, but many of these measures are more influenced by factors outside the health system than inside it. The World Health Organization (WHO) ranked the performance of health systems in its *World Health Report 2000,*[8] taking into account both health status indicators and specific systems indicators such as financing and responsiveness.[b] Of 191 countries in the survey, save for a few exceptions, most countries in Sub-Saharan Africa ranked in the bottom 50% on the performance of health systems.

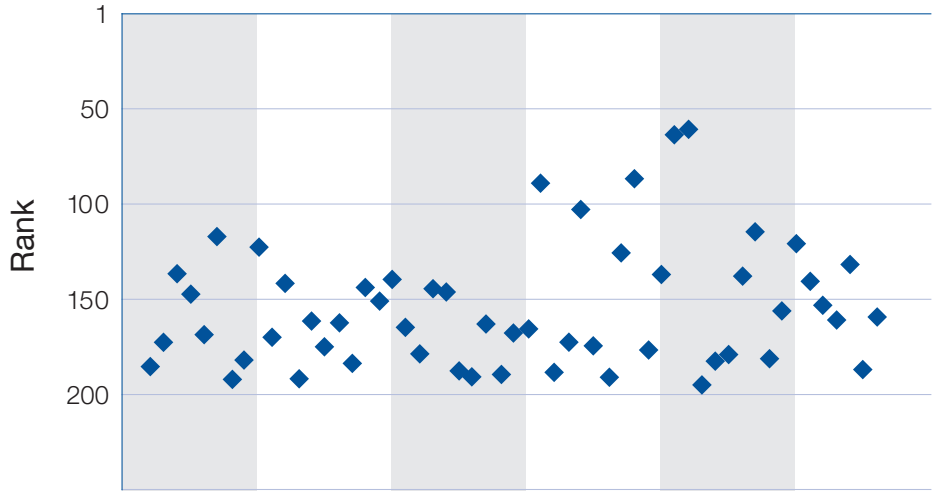
Measuring "avoidable mortality," that is, deaths which could be prevented with access to timely and effective health services, is another way to judge the performance of health systems.[9] The majority of the most common causes of death in Sub-Saharan Africa (such as TB, malaria, tetanus, diphtheria, measles and polio) could be avoided if health systems functioned effectively. In developed countries, even where these diseases exist, they do not cause death or permanent disability because health systems function relatively well.

But health systems do not simply deliver services. The purpose of a health system is to:

- Improve the health of the people it serves
- Respond to people's needs and expectations
- Provide financial protection against the costs of illness[8]

To do this, the system performs four key functions: it must define the policies and regulations under which the healthcare market operates and ensure compliance with these rules through its ***stewardship*** or ***governance*** role; it must provide adequate financial and human capacity through its ***creating resources*** role; it must ensure financial protection from high medical costs and provide

Figure 4. Health Systems Performance Rankings by Country in Sub-Saharan Africa



Source: *The World Health Report 2000. Health Systems: Improving Performance.* World Health Organization. 2000.

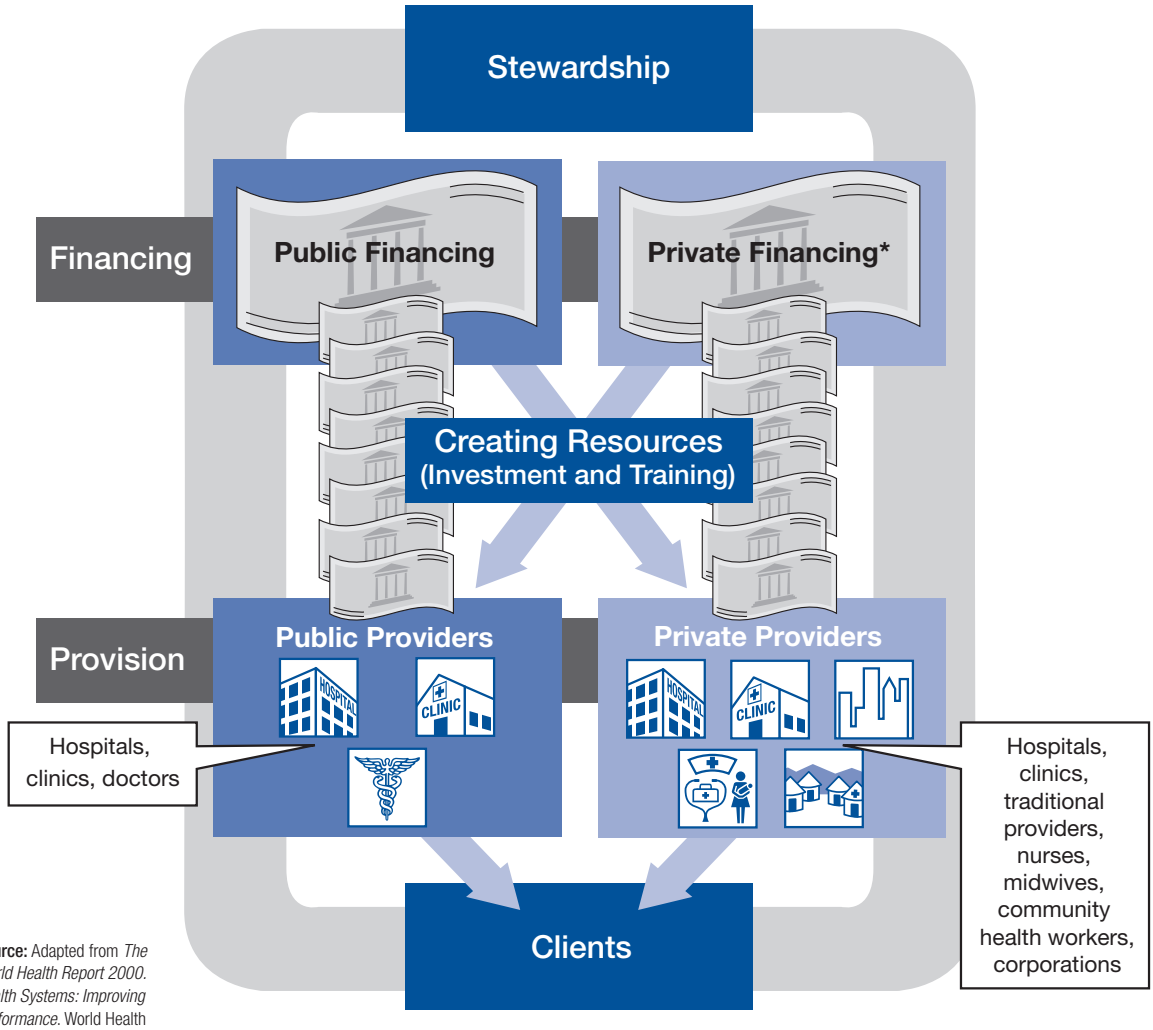
sufficient monies for health through its ***financing*** role; and it must ensure quality and accessibility of services through its ***delivery*** role.[8]

The following section provides an overview of how healthcare is financed and delivered in the region, organized around five questions:

- *Who pays for healthcare?*
- *How much do they pay?*
- *Where is the money spent?*
- *Who delivers health services?*
- *How good are the services they deliver?*

A word about nomenclature in this section. The term "public" is used to refer to management, financing and provision, which are the direct responsibility of government. In financing, this includes general tax-based funding as well as mandatory contributions to social or national insurance pools. In provision, this refers to facilities run by the government or to "public sector workers" who are employed by the government.

Figure 5. Healthcare System



Source: Adapted from *The World Health Report 2000. Health Systems: Improving Performance.* World Health Organization. 2000.

*Includes private and community insurance, and spending by corporations.

[b] The measures were level of health, distribution of health, level of responsiveness (including perceptions of quality of facilities and service), distribution of responsiveness and fairness of financial contributions.

The term "private," when used for financing, describes any spending that is nongovernmental, ie, not collected through mandatory contributions or taxes. This includes out-of-pocket spending by patients and families, insurance payments to private and community insurance pools by employers and individuals and financing by businesses. When "private" is used to describe providers, it refers to providers who are not employed by the government, including for-profit facilities, NGOs, faith-based organizations, corporations that provide services, independent practitioners, traditional healers and a wide range of other caregivers.

Who Pays for Healthcare?

> *"Publicly subsidized care for all is not an affordable option for African governments. Strategies that require better off households to contribute to the costs of their healthcare can increase the availability of limited public financing to assist the poor. Also when people contribute to their care . . . they are more likely to expect the system to be responsive."*
>
> *—Improving Health, Nutrition, and Population Outcomes in Sub-Saharan Africa: The Role of the World Bank*[10]

Unlike most European countries, in the 48 countries that comprise Sub-Saharan Africa, almost half of all healthcare costs are paid for out-of-pocket at the time a person seeks care.[4] Many studies show that high out-of-pocket medical spending can plunge the sick, their families and sometimes their extended clan into poverty.[11] Although one half is already high, it hides some striking extremes. In Guinea, 91% of all health services are paid for out-of-pocket at the time of treatment; in the Democratic Republic of Congo (DRC) it is over 80%.[4]

On average, governments in Sub-Saharan Africa pay for about one third of total health expenditures.[4] As countries get richer, governments start paying for a greater proportion of healthcare; in South Africa and Botswana, both among the richest countries in Sub-Saharan Africa, out-of-pocket payments are only 10% and 12%, respectively, of total health spending.[4]

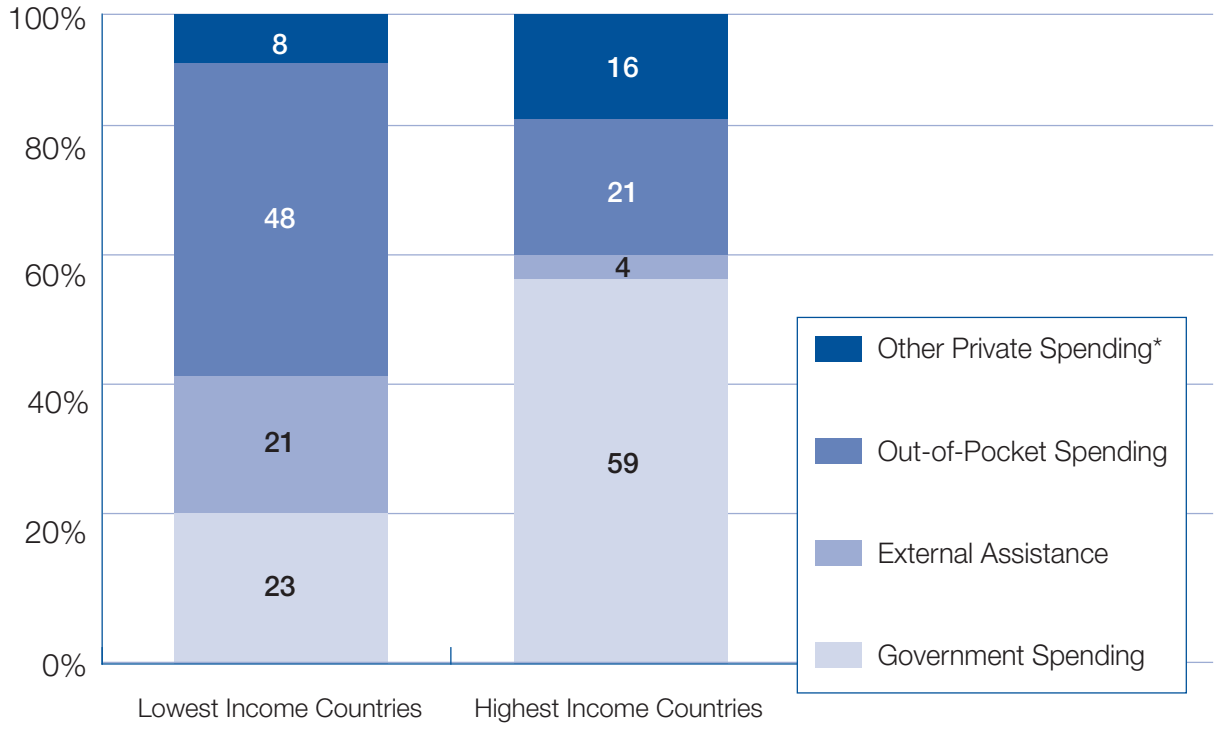
External assistance through loans or grants is also a significant source of funding in a few countries. In Rwanda, over half of total health spending is financed by donors.[4] Traditionally, donor funds have been spent on investments and pilot programmes rather than scale-up or recurrent operating costs, but this is changing now that donors are willing to fund staff costs, drugs and supplies.

Even where it is not a large portion of total health spending, donor assistance often provides the majority of money for disease programmes, and sometimes for healthcare, at the local level. Donor assistance can also drive national priorities. For example, in 2005, a significant portion of the money received by Rwanda from donors was for HIV/AIDS programmes despite a comparatively low HIV/AIDS prevalence rate. It can be justifiably argued that investing in HIV/AIDS prevention and treatment now can keep the HIV/AIDS epidemic in Rwanda from exploding. What is crucial for strengthening health systems is how these funds are allocated, eg, in a way which strengthens the broader health system, not just the disease-specific intervention. This is a challenge that donors and governments are attempting to address through better harmonization of donor policies, the use of sector-wide approaches and the "three ones" principle for HIV/AIDS: one national coordinating mechanism, one national plan and one monitoring and evaluation strategy and system. However, more remains to be done in this area.

How Much Do They Pay?

The amount of money spent on healthcare varies dramatically among countries, with one of the richest countries, South Africa, spending almost **86 times more** per person in public monies (US$258) than the DRC (US$3), one of the poorest countries.[4] By contrast, the relative difference in public spending between South Africa and the United Kingdom (US$1,835) is seven times.[4] This wide disparity means that solutions for improving healthcare systems that may be affordable for countries like South Africa and Botswana will be out of reach for countries like Burundi and Ethiopia.

Figure 6. Health Spending by Source for Highest and Lowest Income Countries in Sub-Saharan Africa



Source: National Health Accounts Database. World Health Organization. 2003.

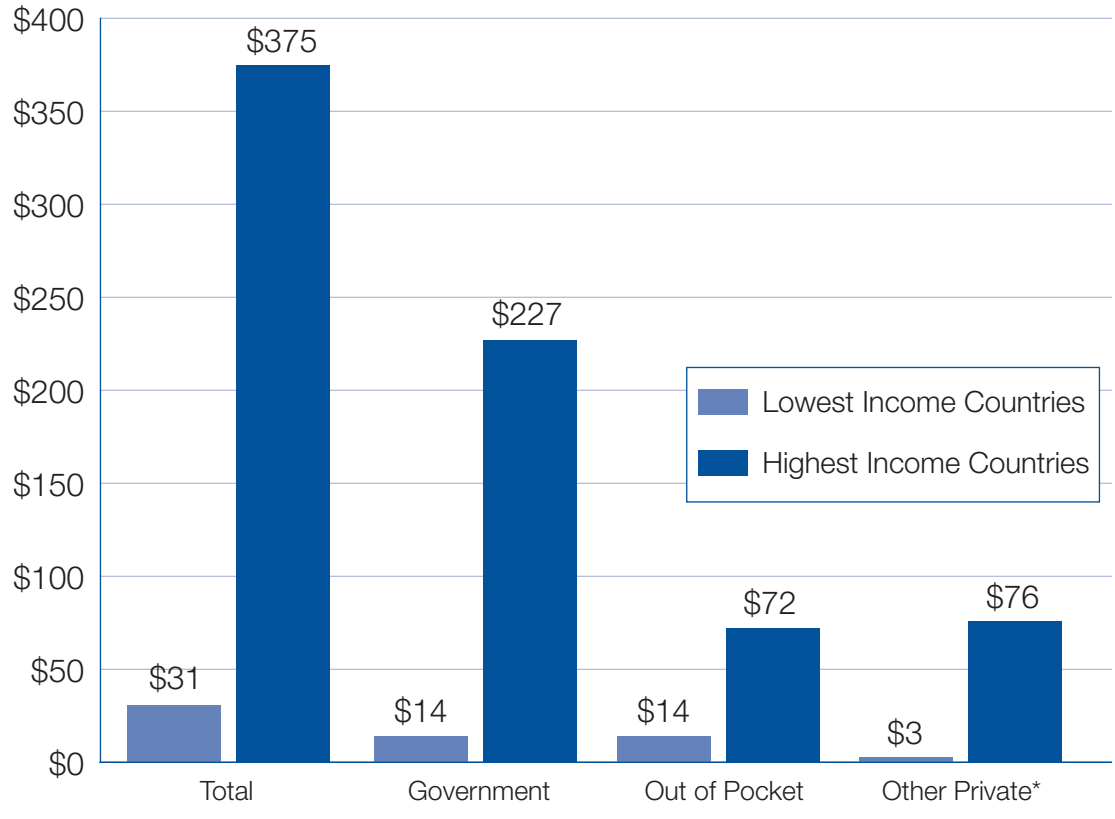
*Includes private and community insurance and spending by corporations.

While the comparative differences are still large, when both public and private spending on health are combined, there is actually more money spent on health in Sub-Saharan Africa than might be expected. According to the Macroeconomic Commission on Health, it costs US$34 per person per year to provide an essential package of health services, which includes basic prevention and treatment for HIV/AIDS, TB, malaria, the common childhood illnesses and maternity services.[12] Taking into account total health spending (public and private monies and external assistance), in principle, 36 countries in Africa could pay for this essential package, while 12 could not.[c] Providing this package, however, would require significant shifts in current public allocations in some countries, as well as methods to combine public and private funding effectively to provide basic services for everyone.[13]

Harnessing private monies, pooling them with public resources and improving the efficiency of how this budget is spent are clearly challenges. However, they are challenges that are beginning to be addressed in several countries through health financing reforms that seek to collect private monies for social and community insurance pools that can be used to pay for healthcare.[10,13] Health insurance provides one model for public-private partnership in financing.[14] For example, Tanzania has created a National Health Insurance Fund that is financed by shared employer/employee contributions, providing an essential package of primary care and hospital services for workers and their families that can be accessed through accredited private and public providers.[10] Though this package is currently focused on the formal sector, plans are in place to expand insurance coverage to other sectors as well.

[c] The figure of $34 was calculated in 2002. To compensate for inflation, we have assumed that a basic package now costs $40. The chart shows countries that have total health spending of less than $40 per capita annually and those that are above $40.

Figure 7. **Health Spending Per Capita for Highest and Lowest Income Countries in Sub-Saharan Africa**



*Includes private and community insurance and spending by corporations.

Source: National Health Accounts Database. World Health Organization. 2003.

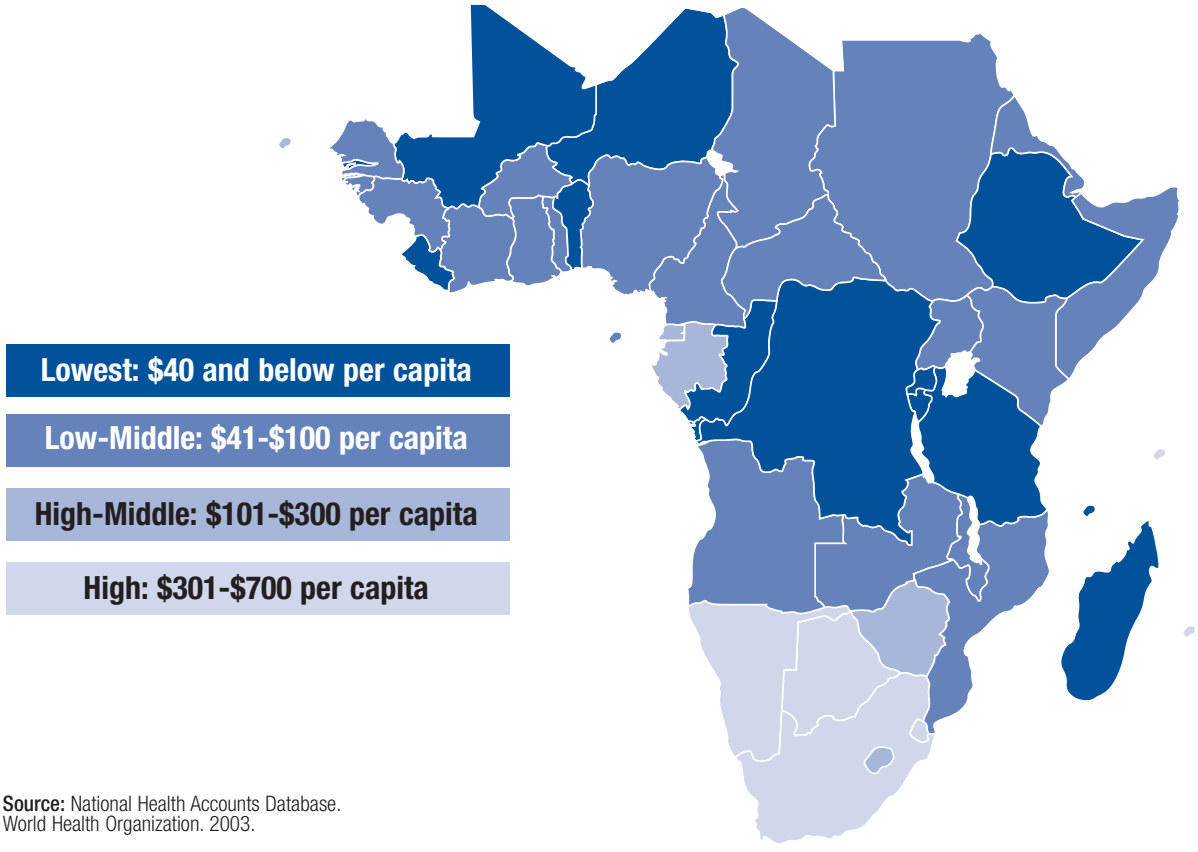
To combine public and private resources in poor and rural areas, some countries such as Senegal have a long history of *mutuelles* or community financing programmes. Unfortunately, these programmes do not yet benefit large numbers of people, although expansion is now becoming possible through cofunding arrangements. In Rwanda, for example, NGOs, churches, bi- and multilateral donors such as Deutsche Gesellschaft für Technische Zusammenarbeit, Belgian Technical Cooperation, United States Agency for International Development and the World Bank have joined forces to subsidize community health insurance for the poor so that those who cannot afford even modest premiums have coverage.[15] The Global Fund recently approved a grant of US$29 million over five years to support community health insurance, which has the potential to pay insurance contributions for up to 2 million Rwandans per year.[16]

Where Is This Money Spent?

Governments differ in how they choose to allocate public monies between curative care, prevention, primary care and public health. Some countries such as Zambia have focused public resources on broad access to primary care, while others disproportionately fund hospitals in urban areas.

> *"Building healthcare systems that are responsive to client needs, particularly for the poor and hard-to-reach populations, requires politically difficult and administratively demanding choices."*
>
> Jeffrey Sachs, Commission on Macroeconomics and Health, WHO[12]

Figure 8. Total Health Spending Per Capita in Sub-Saharan Africa



Source: National Health Accounts Database. World Health Organization. 2003.

In Rwanda, for example, a study of financial flows to rural districts showed that out of US$9.75 annual spending per capita at the national level for healthcare, only US$1.64 reached rural health centres, with the government contributing only 6 cents of this amount.[17] In Kenya, 15% of the government's budget for health goes to financing operating costs for a single tertiary care hospital in Nairobi.[18] In Ghana, two thirds of the Ministry of Health budget is spent on hospitals, with a considerable portion going to one large teaching hospital in Accra.[19] Typically, only about a quarter of public funding goes to primary care, although the main causes of illness and death are preventable and treatable at the primary care level.[19]

Most people in Sub-Saharan Africa, rich and poor, spend their own money on private providers.[14] Added to this, the rich also benefit more from publicly provided services than the poor because of the disproportionate share of public sector resources spent on urban hospitals.[d]

Private monies are not spent just on private providers; in most countries, patients must pay out of pocket for at least some portion of their costs in public facilities, as well.[20] Often these payments are much more than the listed "official" government charges. In Guinea, for example, a study showed that the actual price paid by hospitalized patients in a public facility was over nine times more than the official price; over 90% of these extra charges were for drugs and under-the-table payments to staff.[14] Even where healthcare is ostensibly free at the point of treatment, a lack of resources on the ground often requires patients to pay for their own drugs and for medical supplies such as syringes and bandages.

[d] This is based on a measure called "benefit incidence," which measures the cost of providing public services and then compares this with information on who uses those services, to show the population that benefits from public spending.

Who Delivers Health Services?

A vibrant private health sector exists in Sub-Saharan Africa today. It is, in fact, large, diverse and unregulated. It is made up of independent medical practitioners, religious institutions, NGO-run facilities, pharmaceutical vendors, traditional healers, community workers, shopkeepers and others.[21] Although it varies by country, on average 46% of all doctors in Africa work in the private sector.[22] Even the poorest households, who often do not seek care outside of the home when they are sick, are just as likely to go to private providers as to public facilities for healthcare.[14]

The public sector is often the major provider of public health at one end of the continuum of care, and hospital services, particularly tertiary care, at the other end. In many areas, district hospitals provide the main source of secondary care as well.

Corporations, such as the ones that specialize in mines, agricultural estates and oil fields, also provide healthcare, often to communities other than their own employees and their families.[10] Although this does not play a significant role in overall financing, in some communities these services are the only available source of quality healthcare.

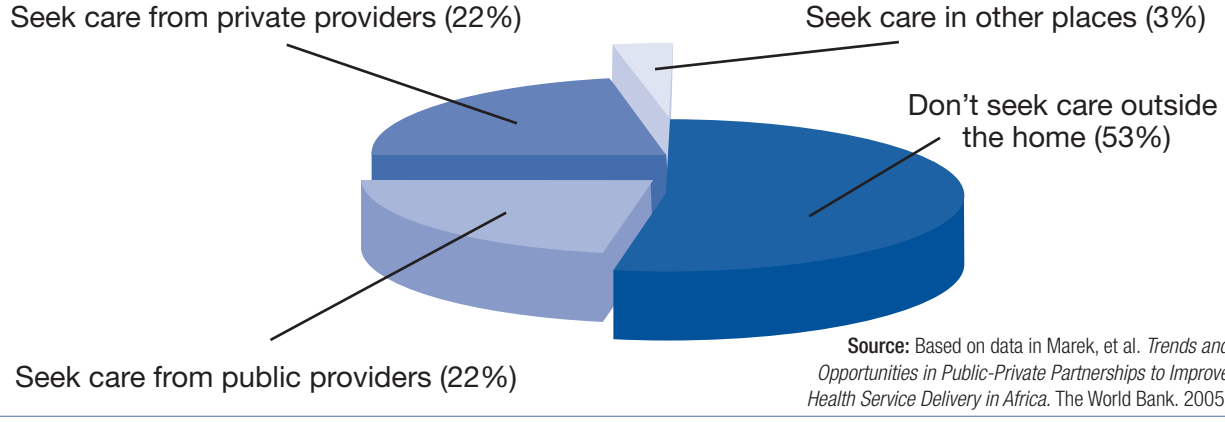
In both the public and private healthcare sectors, several countries are facing severe shortages of qualified health personnel. An estimated 1 million health workers are urgently needed, which is three times more than are currently available in the region.[23] These shortages are the result of several factors: rich countries attracting qualified African professionals; the influx of new funding into Africa, which demands much greater numbers of trained and skilled staff; the HIV/AIDS crisis, which has claimed the lives of many health workers; and poor financial and working conditions, which draw professionals away from healthcare. In Rwanda, it is estimated that as few as 50% of trained physicians actually work as doctors. In 2000, more than 500 nurses left Ghana to work in richer countries, which is twice the number of new nurses who graduated in that year.[24]

Many consider the lack of skilled personnel to be the most critical constraint to improving health systems in the region. The WHO, which devoted its *World Health Report 2006* to health workers, notes that Sub-Saharan Africa has the lowest concentration of health personnel per population of any region in the world—just 2.3 per 1,000 people, compared with the world average of 9.3 out of 1,000.[1,e] Overall, Sub-Saharan Africa has only 1.3% of the world's health workforce, yet it accounts for 25% of global disease burden.[3]

How Good Are the Services They Deliver?

The quality of care provided by both public and private providers varies a great deal and studies

Figure 9. Where Do the Poor Go for Care?



Source: Based on data in Marek, et al. *Trends and Opportunities in Public-Private Partnerships to Improve Health Service Delivery in Africa.* The World Bank. 2005.

[e]The health workforce is based on the International Standard Classification of Occupations (ISCO) and includes doctors, nurses, midwives, associates (such as laboratory technicians, traditional medical practitioners, faith healers), health services managers and other professionals such as IT and support services (such as housekeepers, clerical), who work in the health sector.

show both good and poor quality in both settings. A study in South Africa found that sexually transmitted diseases were diagnosed using the right approach 85% of the time in private clinics and only 68% of the time in public clinics. By contrast, a study in Uganda found that 81% of simple malaria cases were not managed correctly by the more than 165 private facilities treating these cases.[14]

In particular, since the private health sector is made up of so many diverse players, the differences between the best and worst are most pronounced. The quality of drugs is a problem in both sectors but is of particular concern in private markets. Many studies have found that drugs bought through private pharmacies and vendors do not meet quality standards, creating a serious public health problem of drug resistance and unnecessary death.[25,26] Contributing to the problem of drug resistance is the inappropriate and inadequate use of diagnostics to improve cost-effectiveness and efficacy of drug treatment. Drugs are often administered to people who do not need them, and those who do need them are left without treatment.

While both good and bad quality of care can be found in all sectors, when rated on quality of service (such as how quickly and respectfully one is treated), private providers often receive higher scores, even against relatively well-funded public systems. In South Africa, those who used the private sector said they did so because they felt they were treated with more respect and seen promptly. The average waiting time in private clinics was 10 to 40 minutes, compared with 50 minutes to 3 hours in public facilities.[14]

What Does This Mean for the Improvement of Health Systems in Sub-Saharan Africa?

The facts above suggest three key implications for strengthening the capabilities of health systems in Sub-Saharan Africa.

First, the significant portion of spending that is private and out of pocket means that reforms around how services are financed are critical. If some of the money being spent at the time of treatment can be captured through such mechanisms as insurance that pool and share risk, people will be protected from slipping into poverty because of medical expenses, and a major barrier to seeking treatment will be removed. It will also allow the larger collective pool of money to be spent more effectively for a benefits package of essential services.

Second, the fact that a large private sector exists and many people use it means that attention must focus on how to use the comparative advantages of each player in financing and delivering healthcare. Improving the health system means building everyone's capacity, not just that of the public sector.

Finally, since financing and delivery of healthcare are done by multiple players, the role of stewardship of the market becomes even more critical. Ministries of Health in many countries focus their attention on running hospitals and other clinical services and not on effective oversight of the entire healthcare system. They spend a disproportionate share of public attention on serving a small portion of their people. Improving the performance of health systems requires building government capacity to regulate the healthcare market, creating a positive environment for investment in health services and products and harnessing the talents of all partners toward the goal of better health.

III. The Challenges Facing Health Systems in Sub-Saharan Africa

> *"Capacity building is not just about training, with perhaps some equipment and development of a few tools, maybe a few buildings. It's about the intangibles–leadership, managing change and creating a culture of information and accountability."*
>
> Stephanie Simmonds, participant at Nairobi Workshop

The challenges facing health systems in Sub-Saharan Africa are well documented and span such issues as lack of drugs and supplies, poor regulations and quality standards, high customs duties and taxes, doctors and nurses not showing up for work, the brain drain, poor public accountability and corruption.[14,23,25-30]

The first workshop of the GHI of the World Economic Forum brought together organizations from a broad number of sectors with practical experience with the problems in health systems, including major companies in mining, management consulting, diagnostics and pharmaceuticals, as well as front-line NGOs, academic institutions, donors, public sector representatives and journalists. The participants were asked to fill out a survey of why they thought healthcare systems in Sub-Saharan Africa were not working. Although left unsaid, it was expected that they would identify the most fundamental obstacle as money. But these were all seasoned veterans of Sub-Saharan Africa, running businesses, working in NGOs and governments, selling products and seeking healthcare for themselves and their families. Their answer was different. They identified four key challenges for which solutions could be sought in partnership with business to bring sustainable and widespread improvement in the performance of health systems, namely:

1. Management

2. Financial strategies and accountability

3. Access for rural and vulnerable communities

4. Quality of care and systems

Workshop participants articulated that money is indeed important and more money can obviously make a difference; but it became clear during the discussion that current monies can go much further to provide better health. More money spent on the same broken systems will not necessarily fix the systems.

The categories of challenges are broad and subsume many of the common problems. For example, they include motivation of staff, ensuring accountability and organizing services as challenges of management; lack of supplies can be due to poor management (the process is not managed), insufficient financial resources or poor quality monitoring. Nevertheless, participants felt that it is possible to address these challenges.

This section outlines how these four challenges were perceived and defined by the workshop participants.

Challenge 1: Management

> *"What are the most important innovations of the past century? Antibiotics and vaccines that doubled or even tripled human life spans? New agents of communication like the telephone… or the chips in computers, and networks that are propelling us into a new economy? All of these innovations transformed our lives, yet none of them could have taken hold so rapidly or spread so widely without another. That innovation is the discipline of management—the accumulating body of thought and practice that makes organizations work."*
>
> Joan Magretta, *What Management Is*[31]

The complexity of services that must be delivered through any health system is staggering. A health system must finance and deliver a wide range of public health, prevention and promotion programmes, as well as provide for direct services to individuals that include immunizations, perinatal care, treating injuries, control of infectious diseases, high-intensity treatment of noncommunicable diseases and ongoing management of chronic conditions. These services

are delivered by a wide range of players: public providers, NGOs, private providers and traditional healers; and in a variety of settings: doctors' offices, clinics, hospitals, homes and communities.

Complexity requires organizations and organizations require management. This means all of the management functions taught in business schools, including planning, organizing, defining roles, creating processes and incentives, ensuring accountability and hiring and motivating staff. Management also means leadership and governance—setting sound policies and ensuring performance.

The fragmentation of health services in Sub-Saharan Africa makes strong management absolutely essential. Yet the region has the lowest management ratio in the world—only 17% of its total health workforce is employed as managers or support workers,[f] compared with 43% in the Americas and 33% globally.[1] This skill deficit has serious implications for scaling up health programmes. According to *The World Health Report*, "Health management and support workers provide the invisible backbone for health systems; if they are not present in sufficient numbers and with appropriate skills, the system cannot function . . . ."[1] *The World Health Report* names improved management as the highest priority for country leaders if they are to address human resource deficiencies successfully. It suggests that the focus of improved management should be to cut waste, improve incentives and create and sustain a high-performing work force.[1]

> *"Management makes organizations possible; good management makes them work."*
>
> Joan Magretta, *What Management Is*[31]

During its first meeting in Nairobi, Kenya, the group visited several sites to experience firsthand the range of health services in Sub-Saharan Africa. The following stories capture the contrasts:

> Nazareth hospital, in Kiambu district, is a faith-based institution that provides hospital care for US$5 per day. It is self-sustaining, covering all its operating costs in that US$5, though it does rely on private and donor contributions for capital improvements. It serves the neediest communities in its rural location 25 kilometres from Nairobi. By all accounts, it provides quality care to its patients in a clean and hygienic environment. On average, 80% of its 220 beds are full at any given time. Its work has been recognized by the Global Fund and PEPFAR, which have collectively given it several million dollars in grants to provide ARVs through a community outreach programme. What is its secret? When asked, one of the medical doctors who worked in Kenya's public hospitals before coming to Nazareth said: "Management. At government facilities doctors can't do what they are trained to do. Staff don't show up or are de-motivated when they do, operations are delayed because there is no oxygen in the operating theatre; the bureaucracy creates inertia in staff and supervisors. Here staff are motivated; doctors have the supplies and tools to do their job."
>
> Not far away is another rural institution run by the public sector. Here it was alleged that the government had not procured enough reagents for CD4 or viral load tests used in HIV/AIDS testing and treatment, and it was impossible for hospitals or clinics to buy supplies directly, even though they had funds in hand from patients' user fees. Pharmaceuticals, they said, were centrally supplied but were often of very poor quality—syrups turning black, tablets crumbling, sutures weak—because contracts were awarded to the lowest generic bidder and quality was not properly checked. Though the equipment to do complex tests was in the laboratory, the hospital did not have enough gloves for work to be safe. This was not due to lack of money, but because the accountability for ordering the gloves and the process of getting them was so complex. The comment on staff motivation and morale was that ". . . if someone decides to be a rotten egg, we can make a recommendation [to the Ministry] that they be sacked but it takes many years. If the manager here had the power to hire and fire, things would improve."

[f] Support workers include those who provide services such as distributing medicines, maintaining equipment and supplies, planning and setting direction for the system.

These are all challenges of management: managing people, managing money, managing supplies.

Challenge 2: Financial Strategies and Accountability

While the challenge of running an effective health system is not limited to resource-poor settings, those with few resources face even greater obstacles. How much money is in the system and how that money is collected, pooled and distributed are critical elements for providing essential services, ensuring financial protection against high medical costs and improving equity and access to care.

The way in which the money flows through the system can sometimes present a greater constraint to delivery of services than overall financing. Budget processes, particularly in public facilities, are often bureaucratic and complex with no incentives to promote cost-effective practices. Profit and loss responsibilities do not clearly rest with districts or health facilities and financial management tools are weak or nonexistent. Basic information about costs of care is lacking and financial accountability is often not measured or even expected.

While ensuring sufficient resources for health will continue to be a challenge in some countries and require sustained external assistance, changing internal incentives for cost-effectiveness and promoting financial discipline are steps that can be taken immediately to achieve greater impact from current monies.

Challenge 3: Access for Rural and Vulnerable Communities

> *"We've been saying all these things since the 1970s! Our deaths are mostly in the villages, but we are still dithering about what to do about it. Most African countries are exposed to at least one good model that is not scaled-up or reapplied. It is so frustrating!"*
>
> Participant at Nairobi Workshop

How to provide access to quality, affordable care in remote areas seems to be one of the most intractable difficulties in organizing the delivery of services. This is also true in rich countries, where it is difficult to get doctors and nurses to live and work in rural communities, and where access to healthcare often requires considerable travel. These problems are made vastly more difficult in Sub-Saharan Africa by poor roads, lack of transportation and the high relative cost of taking unpaid time away from work to seek medical care. In South Africa, the poorest people must travel an average of two hours to get medical care, while the richest travel an average of 34 minutes.[19] A cultural reliance by some rural or tribal communities on traditional healers and nonmedical practitioners also makes it difficult to encourage people to seek health services outside their own communities.

One answer is to bring as many services into communities as possible and train local people to provide basic healthcare. Many programmes and pilot projects have been implemented with this focus. For example, community malaria drug distributors in Uganda have been so successful that they are beginning to be overwhelmed with requests to work on other things, such as oral rehydration therapy, antenatal care and vaccinations *(see Case Study 1 in Section IV).* Tanzania's Essential Health Interventions Project is considered a similar success *(see Case Study 2 in Section IV)* and in South Africa, community workers join forces with traditional healers to provide treatment to rural communities.

Another approach is to make public facilities more accessible. In Zambia, the system of primary care clinics provides broad access to care, so that most of the poor and those in rural communities seek care through these clinics.[28] A study in Ghana found that cutting the distance to public facilities by 50% increased the use of these facilities by the surrounding community by 96%.[19]

A combination of approaches is needed and there is no shortage of programmes that show what might work. The challenge is to do enough of these initiatives,

at scale, so that they become an integral part of the health system.

Challenge 4: Quality of Care and Systems

> *"Thirty equipped healthcare facilities with trained and well-paid staff would have a greater impact on health than 300 brand new buildings with unmotivated staff and no drugs."*
>
> *Improving Health, Nutrition and Population Outcomes in Sub-Saharan Africa: The Role of the World Bank*[10]

Ensuring consistent quality of care is a major problem in poorly funded and unregulated systems, with processes, information flows, equipment and drugs all contributing to this. The variety of individuals providing health services in Sub-Saharan Africa makes it critical for governments to oversee quality of care and services for the entire system through accreditation and regulation mechanisms. At the individual facility level, it requires focused attention on quality assurance and improvement processes. Poor quality controls, such as the reuse of medical equipment and syringes and unhygienic conditions, can make healthcare institutions powerful vehicles for spreading disease, not treating it.

Quality also has an impact on access. Perceived quality of care affects the demand for healthcare by both the rich and poor. The poor, however, have fewer choices and tend to stop seeking care if the nearest services are not of sufficient quality. On the other hand, the poor may be willing to pay for care if their fees result in a significant improvement in access and quality.[10] A study in Cameroon showed that when user fees were introduced in public clinics, this resulted in a regular supply of drugs, which in turn increased use of services by the poor, compared with facilities that remained free of charge, did not have the drugs and in which the use of services did not increase.[32]

Problems related to quality can often be solved by simple solutions. In Ethiopia, for example, a survey found that half of all public facilities could not diagnose childhood pneumonia, a leading cause of death, because they lacked a basic timepiece.[10]

The challenge is to put processes in place that will get these problems solved and ensure accountability for keeping them solved.

IV: Some Important Success Stories

There are many examples of public-private partnerships that are successfully addressing health systems challenges in Africa. This section presents three of these partnerships. These cases have not been selected as best practices but as solutions that have worked. Each is written by a different author. What they all have in common is that:

1. They have harnessed the talents of multiple stakeholders through formal or informal partnerships.

2. They have been done at some scale and their design can be scaled up.

3. They are sustainable or include mechanisms which can make them sustainable.

Case Study 1: Home-based Management of Malaria

A model for local partnerships in health?

By Robert Walgate

SUMMARY

Training, communication and provision of antimalarials at the community level cut malaria mortality by 40% in trials in the late 1990s. In Uganda, the scheme has been extended to most major child health issues, using public and private partners, and stimulated the creation of a country-wide network of multipurpose "community drug distributors." So why is it not widespread? In the case of malaria, a major study on the community distribution of artemisinin combinations is awaited. But the principles that the approach pioneered could be applied universally.

How could the public and private sectors unite to help African mothers and carers save their children from dying of malaria, thus providing a model for an engaging and complete health system? By adopting and extending the scheme known now as the Home Management of Malaria (HMM).

When assayed in 37 villages in rural Ethiopia in 1997, HMM reduced under-five mortality by 40%. In 32 villages in rural Burkina Faso in 1998-1999, HMM reduced severe malaria in children by nearly one half.

So what is HMM? In the original trials in over 6,000 children in Ethiopia, "mother coordinators" were trained to teach other local mothers to recognize symptoms of malaria in their children and to give a complete course of chloroquine promptly.

In Burkina Faso, opinion leaders (mainly older mothers) were trained in the management of uncomplicated malaria, including the administration of dose-specific prepackaged chloroquine: the chloroquine was also sold through the local markets.

Even though they had to pay, mothers treated 56% of potentially malarial fevers with the drugs within a day of onset of illness, and reduced the progression of those fevers to severe malaria by 47%.

According to Jane-Frances Kengaya-Kayondo, the researcher who pioneered HMM at the Tropical Disease Research programme at WHO in Geneva, "Earlier research had shown that in most countries 80% of malaria episodes, particularly in children, are dealt with at home using available resources, whether traditional, herbal or medical."

"But this treatment is almost invariably inappropriate," she said. "They start late, get the wrong treatment, and even when they get the right treatment, they don't comply with it." And "in a Tanzanian study, 90% of under-five kids died without even one contact," she said. "So these two arguments really inspired TDR to find ways of increasing access to care, providing appropriate care and ensuring compliance."

Implementation

A key issue for implementation was "Who can deliver nearer home?" Different countries tried different approaches, from community-based volunteers (both male and female) to mothers who could be trained and given basic skills of how to take a decision that this child needs on-the-spot treatment for malaria, or immediate referral. "So they developed training programmes to do that," Kengaya-Kayondo said.

The next question was, "What intervention?"

"When we started four or five years ago, chloroquine was still the drug of choice in many countries. We packaged unit dose blister packs for kids, so they had a dose for under–one-year-olds, and a dose for 1-6 years, with different colour codes so the community-based providers could easily learn—even if they were illiterate—that the red one was for the baby and the white one for the child. It was one tablet a day for three days. They had these drugs in their hands all the time."

"Then of course we had to study the system—how does it link with the nearest dispensary or health centre—because they can provide the support, the training, keep up the supply of drugs. In some countries like Kenya and Uganda, where shopkeepers are the main outlets of drugs, we developed shopkeeper training programmes to provide appropriate treatment and good information on how to use it."

Results

HMM was adopted in Uganda, Kengaya-Kayondo's home country, and has become the inspiration for a widening series of health activities, with the Ministry of Health eager to apply it to other health issues, as both a delivery and communications tool.

However the focus has been less on mothers (or, more generally, carers), who remain a vastly under-used resource, than on training private providers—community drug distributors (CDDs)—in children's and mothers' health, vitamin A distribution, growth monitoring, health promotion, diarrhoea management and acute respiratory infection management.

In another study, the Ugandan Malaria Partnership Project, led by the African Medical and Research Foundation (AMREF), has experimented with training CDDs to communicate on insecticide-treated nets and intermittent preventive therapy (where artemisinin combinations are given to infants at regular intervals, independent of fever).

According to AMREF Director, Michael Smalley, after UMPP training, the number of households using at least one bednet increased from 11% to 37% in one district, and from 1.4% to 14% in another.

Some 40% of the CDDs were dropping out of the programme after a year, said Smalley. But "AMREF reduced this to 1-2% by offering self-respect by connecting them with the primary healthcare system and providing T-shirts labeled 'Ministry of Health,' drug boxes and bikes to get around the community," he said.

Scalability and Sustainability

The Kampala Pharmaceutical Manufacturer's Association has helped provide both scalability and sustainability by showing an interest in preparing the original prepacked antimalarials, chloroquine plus sulfadoxine-pyramethamine, called "HOMAPACK." From the manufacturers' perspective the Uganda scheme divides into two parts: the public sector (free provision of HOMAPACK) and a private-sector scheme in which the drugs are sold at "market price." In Uganda "a good number of people go to the private vendors," especially in the periurban areas, which are not well served by the public health system, says WHO's Wilson Were.

Uganda has produced a training and negotiating guide along with monitoring guidelines for improving the child healthcare practices of private providers, creating a wide network of CDDs. According to Franco Pagnoni of TDR, who continues work on HMM, “All kinds of people can be engaged in providing treatment. In rural communities it’s mainly farmers and teachers, in urban areas chemical sellers and even shopkeepers like barbers and video-shop managers.”

For example, a chemical seller in Ejisu-Juaben, Ghana, used to sell chloroquine syrup for childhood malaria and made a small profit on the sale. According to Pagnoni, he now distributes prepackaged artemisinin combination therapies (ACTs), on which he makes no profit, but expresses satisfaction with his task because the drugs are very effective.

So what’s next? Apart from the promising extensions of the methodology to distribute other forms of healthcare and information, “more than 25 malaria-endemic countries in Sub-Saharan Africa have incorporated HMM in their malaria control plans and in their applications to the Global Fund,” says Pagnoni.

Key Learning

There is one fundamental problem, says Pagnoni: the rising malaria drug resistance that led to the WHO recommendations for the use of ACTs, which were not the drugs originally tested.

This is not a problem with the basic scheme, but “we need to adapt the HMM strategy to the use of ACTs,” says Pagnoni. “We are working very hard in TDR to raise the funding we need. We need research to provide data quickly on the feasibility, acceptability and effectiveness of HMM with artemisinin combinations.”

Key Lessons

There are several key lessons from the trials of home management of malaria:

- Mothers and carers will readily protect their children from severe malaria and other causes of ill health and mortality, using proven and successful modern methods
- To do this they need a minimum of information and material products like appropriate, well-packaged pharmaceuticals, available from local distributors either free or at prices affordable to mothers and carers
- Local shopkeepers of all kinds are prepared to be trained and help communicate the appropriate information and materials to mothers and carers, even without profit
- Local pharmaceutical companies will also assist with product manufacture and packaging, probably because there is a profitable parallel market in the private sector
- The approach is scalable and sustainable
- Research to test and develop the methodology must keep pace with the changing nature and knowledge of disease, such as drug resistance in the malaria parasite

Case Study 2: The Tanzania Essential Health Interventions Project

Building management capacity and more

By Krista Thompson and Neelam Sekhri

SUMMARY

The Tanzania Essential Health Interventions Project (TEHIP) was started in 1993 as a way to test the idea that improved health outcomes did not require just increased funding, but also more strategic investments. More than ten years later, TEHIP is an excellent example of a holistic approach to building a quality health-care system. It is time-consuming—doing lots of small interventions based on reliable data. The results, not the approach, are dramatic.

The Tanzania Essential Health Interventions Project (TEHIP) started in 1993 as a way to test the idea that improved health outcomes depended not just on increased funding, but also on more strategic investments in health systems. This proposition was originally put forth in the World Bank's *World Development Report 1993*, which suggested that morbidity and mortality rates could be significantly reduced with even modest resources if health interventions were aligned with the "local burden of disease."

The initial project in Tanzania, TEHIP, involved collaboration between the Tanzania Ministry of Health and the Canadian International Development Research Centre. Canada's International Development Agency funded the project.

The model has three key elements:

1. Strengthen local management capacity by developing a tool kit for evidence-based planning that can be used by health managers. Train managers in use of these tools to collect comprehensive data on local burden of disease. Use the data to adjust budgets and determine how money should best be spent in the district.

2. Provide a limited amount of "op-up funds" in districts (approximately US$1 per capita), bringing annual public per capita funding in the two districts to about US$4.

3. Ensure political support through active involvement of the Tanzanian Ministry of Health and integrate the project into the Ministry's goal of decentralizing the management of health services to the districts.

The programme sought to implement changes in the system, develop tools and test their usage on an ongoing basis. It also built rigourous monitoring and evaluation into its design.

The connection between the project's research and development functions was intended to be complementary and mutually reinforcing. The result was a "feedback loop" that allowed the assessment of tools and systemic changes to be refined and modified, as well as the opportunity to consider the development of new tools along the way.

Implementation

The programme was initiated in two Tanzanian health districts of Rufiji and Morogoro. The most important partners in its implementation were the local healthcare authorities in the districts, organized through the creation of District Health Management Teams (DHMTs).

Within these districts, the small DHMTs had the responsibility of improving the use of the health budgets to cover 741,000 residents, a large population spread over an area nearly the size of Switzerland and consisting of varied and difficult terrain.

This made the personal supervision of district health facilities nearly impossible. To address this issue and ensure quality, a "management cascade" was developed which utilized "mother" health centres for supervising groups of "daughter" dispensaries with the aid of two-way radios and reliable transportation, including motorbikes or boats.

Results

Mortality in the two districts has declined significantly. Over four years of implementation, child mortality has fallen by more than 40%, and death rates for men and women between 15 and 60 years of age dropped by 18%.

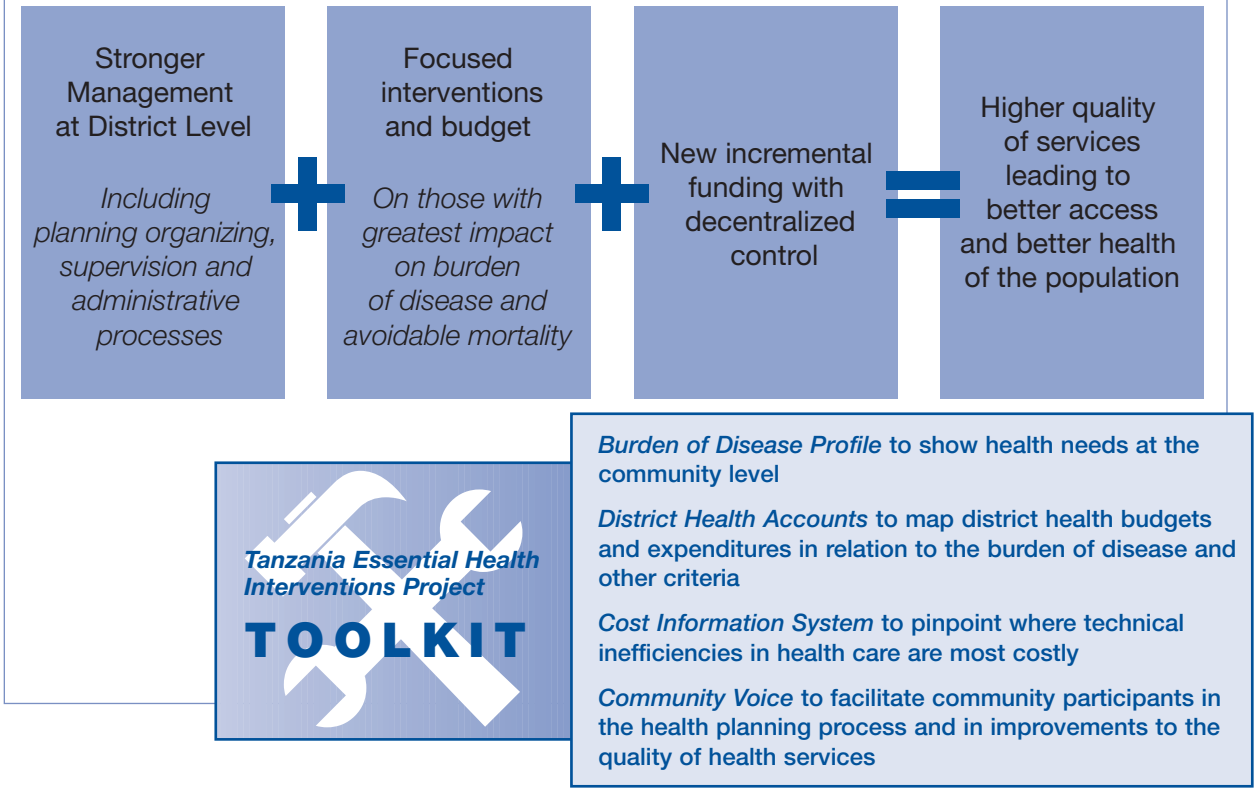
These gains are attributable not to a single intervention, but to a range of small measures to improve health system efficiency and target health monies to local causes of mortality.

Scalability and Sustainability

The need for sustainability of the work was recognized at the outset and IDRC developed an exit strategy to ensure that the tools, interventions, innovative practices and new ideas generated during the project would continue to flourish after the project ended.

The Tanzanian Ministry of Health has now taken ownership of the tools and, with international funding from the UN Foundation, is working to implement their use throughout Tanzania.

Figure 10 **Model for Improving Health System**
Tanzania Essential Health Interventions Project



The project took four years to achieve its results, partly because of the planning process and iterative tool development. By adopting the tool kit in similar environments, it should be possible to accelerate the pace of change. However, because the approach relies on local capacity building, it will still take time to get communities involved at the appropriate level.

Lessons for other settings: Once you get a healthcare system working well, a little money goes a long way.

- **Investing in health systems can clearly work.** New money needs to be focused on scale-up and coverage of existing health interventions. Absorbing even small amounts of money took twice as long as originally planned. Money must also be available for "bricks and mortar," but engaging the local community to provide materials and labour can make a small amount of money go much further.
- **More than money is needed to improve healthcare.** Local teams must first improve their management abilities: planning, managing, administration and implementation. Small but critical investments must be made in training workers and managers. In Tanzania now, all district health managers must have a masters in public health. The management cascade provides a good model for training and ensuring ongoing quality of health services in remote settings.
- **Community participation is central to lasting capacity building.** The TEHIP tool kit identifies methods to mobilize communities to refurbish run-down healthcare facilities and ways to sound out the "community voice" to help identify local needs and set priorities.

Case Study 3: The African Comprehensive HIV/AIDS Partnerships (ACHAP) in Botswana

Corporate partnership

By Deborah Fletcher and Jed Beitler

SUMMARY

Established in July 2000, the primary goal of ACHAP was to reduce HIV incidence and to minimize the impact of HIV/AIDS in Botswana through an integrated and focused approach to prevention and treatment. The initiative began as an idea within Merck & Co., Inc., to create a broad impact on health by testing the potential for private-public funding for HIV/AIDS in a country with the fundamental infrastructure to manage such an effort. Five years on, in part because of this programme, WHO declared Botswana as one of only three countries in Africa to have achieved, by December 2005, the goal of treating more than half of those who needed HIV/AIDS treatment.

The ACHAP PPP consists of the Government of Botswana, the Bill & Melinda Gates Foundation and Merck & Co., Inc./The Merck Company Foundation. The Gates Foundation and the Merck Company Foundation each dedicated US$56.5 million over five years towards the project. Merck & Co., Inc., is also donating two of its ARV medicines for the duration of the programme.

A board with representatives of each of the stakeholders oversees the PPP. A project manager leads the overall implementation. Though the programme was originally scheduled to end in 2005, the partners have renewed their commitment to extend it until 2009.

From the beginning, the programme was designed to support, develop and finance effective, sustainable and locally-driven HIV/AIDS programmes. The current priorities, adopted after a thorough strategic analysis conducted by the government together with the ACHAP partners, include strengthening HIV prevention and testing, providing a package of post-test services, supporting the antiretroviral treatment programme and mobilizing communities in the response to the epidemic at all levels.

Implementation

The first step of implementation was to build trust between the partners and create collaborative decision-making and prioritization. Reconciling cultures was a challenge. Says one Gaborone workshop participant:

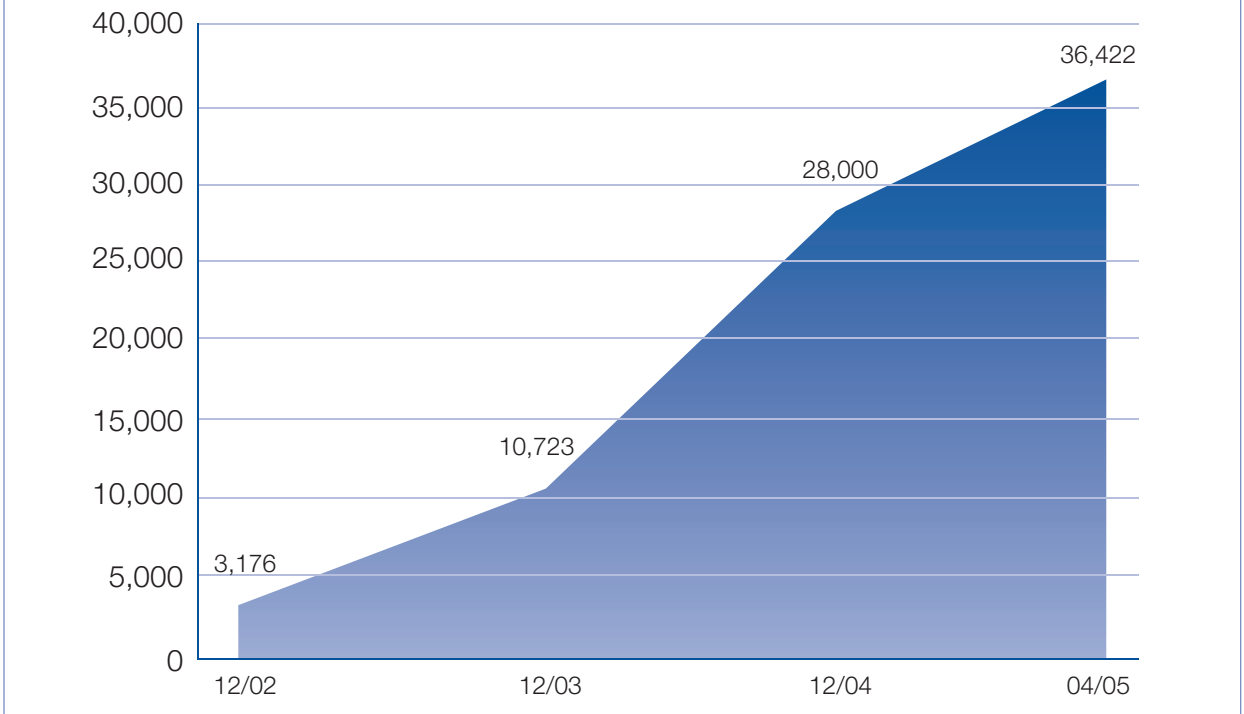
> Private sector companies expect quick turnaround times, real deliverables and want to know why certain things haven't happened. And then you're interacting with a different culture, which is usually on different time frames—the government has different incentives and different political considerations that need to be kept in mind. Bridging the gap between public and private, that has its own very unique challenges in terms of expectations and time frames.

Another challenge was to ensure that several ministries, including the Ministry of Local Government, Ministry of Finance and Ministry of Health, were all involved. Each ministry holds substantial influence over decisions, and the programme required intense cross-integration work with each of these stakeholders.

Results

While results have been slower than expected, as of December 2005 more than 50,000 people had enrolled in the ARV treatment programme Masa, with more than 56,000 patients receiving treatment. About 2,000 new HIV-positive patients are being enrolled each month (Figure 10). According to the WHO's recent 3 x 5 report, Botswana is one of

Figure 11. **Number of Patients on ARV Therapy Through Botswana's National Treatment Programme**



only three countries in Africa to have achieved, by December 2005, the goal of treating more than half of those who need treatment; at 85% of the target, Botswana heads the league table among African countries.

The success of the ACHAP programme cannot be measured only by the numbers of patients treated, asserts Dr Ernest Darkoh, who was operations manager for the Masa programme:

> To me, the impact of the programme has been just monumental. When we arrived in Botswana, there was almost no conversation about HIV. It was very much almost a sense of fatalism. And then within a few years, you can't go two steps without seeing something HIV-related. There are radio dramas. There are shows. And this is from all partners, not just ACHAP. But treatment, I believe, really remobilized people around a response.

Scalability and Sustainability

The programme now operates at considerable scale and will continue to expand. ACHAP is well integrated within the health system and throughout the government with other ministries. However, its financial sustainability is an important concern. While Botswana is a middle-income country with more than the average financial resources, this is an expensive programme (cost per patient) which will require continued funding for some time. Fortunately the government of Botswana, since the beginning, has been committed to ensuring the sustainability of the different programmes.

Lessons for Other Programmes

- **PPPs that seek to make a substantial impact require commitment and guidance from the top leadership.** Without this, there are too many opportunities for bureaucratic obfuscation. The government must be an active partner and create sound enabling policies to ensure broad-scale implementation and sustainability
- **Scalability is a serious concern that should be considered in the planning stages.** There is a general assumption that pilot programmes that demonstrate success can simply be scaled up to meet more broadly defined needs. However, those who are successful at running small pilot programmes often do not possess the skills needed to run large, countrywide efforts. Involving and training those who will take over the programmes once they are at scale is critical
- **Sustainability requires involvement with local stakeholders and each initiative needs a local "home."** In this case, the government of Botswana will manage the programme on a long-term basis
- **Sustainability requires a commitment to building local capacity.** Programmes need to be locally driven to succeed and to be sustainable
- **Replicating this programme requires finding a good match between private partners and governments who are committed to making a long-term investment.** Botswana offered a unique opportunity for the development and implementation of ACHAP because it does not face the economic, social and political conflicts which can make programme implementation even more difficult
- **Replicating this programme requires broad community engagement.** Extensive consultation with and good coordination between the broad community is critical to ensure its crucial buy-in and the success of the programmes
- **Harnessing the private-sector–specific skills within the PPP has proven successful.** The result-driven private sector model has contributed to the success of the PPP

There are several lessons from these cases that directly address the prerequisites for scalability and sustainability.

First, building health systems takes time. In all cases, even with sufficient resources, technical support and political commitment, it took longer than expected to achieve results. Each case shows, however, that it is worth taking this time to build the internal capacity and do the hard work of implementation at a large scale. This requires planning the rollout process from the beginning and involving those who will be responsible for rollout at an early stage.

Second, government leadership is critical for wide-scale impact. In any PPP that seeks to improve the health system, government must be an active partner. This often involves partnership among businesses and various ministries within government, each with different agendas and timelines. But without investing time in ensuring broad commitment, full-scale implementation will be jeopardized and pilot programmes will continue to benefit only local communities.

Finally, PPP programmes can clearly produce strong results. But PPPs targeted at health systems capacity require more time, patience and resources than partnerships for fighting diseases or providing drugs. This may mean developing new types of partnerships that not only catalyze action but also become permanently integrated into health systems operations. Governance and accountability for these hybrid institutions are issues which will require creative solutions and continued attention.

V: The Power of Partnerships

Sub-Saharan Africa consists of 48 countries, with vastly different geographies, income levels, languages, cultural groups, religions, political systems, health spending and historical structures.

This diversity means that that there is no "magic bullet" and solutions will not work in all countries and in all areas within a country. Creating capacity within health systems should begin from existing values, structures and processes, and build on them. Some countries start with social and community insurance systems that can serve as the basis of expansion, while others have a long-held belief in general tax-based funding. In some areas, public delivery functions effectively and improving it may be the right approach, while in others, faith-based organizations provide most of the care and the best solution may be to expand their capacity. This requires policy-makers to make some hard decisions about where to spend money and focus attention.

While not all the answers to health systems challenges are known, there are plenty of pilot programmes in the field that can indicate the right direction to follow. The greatest challenge is to take programmes such as those outlined in *Section IV* and expand them so that they become integrated into the fabric of each health system. This will improve care for millions of people, not just for a few communities. This is a challenge both within countries, where programmes and projects exist in some regions but have not spread throughout the country, and between countries where good practices are often not shared across borders.

This is a problem well known to global corporations, NGOs and other organizations that operate in multiple countries—across cultures, political systems and economies. Scaling up health practices is even more challenging. At the policy level, healthcare reform is embedded in national political processes and influenced by priorities and interests well beyond the health sector. Administratively, the Ministry of Health may be responsible only for delivery of publicly provided services, with the Ministry of Finance having responsibility for total health spending. Social health insurance systems may fall under the Ministry of Labour and Pensions, while private insurance mechanisms may be monitored by general insurance commissions with no expertise in health.

This fragmentation makes it very difficult to introduce and implement coherent strategies in health. But system-wide coherence is critical to moving beyond pilot programmes and regional examples. Without this coordination, which falls squarely on governments, pilot programmes will continue to help only a handful of people without affecting the lives of tens of millions of Africans.

Coordination among all stakeholders will enable health systems to become more effective, and allow a greater number of public and private partners to engage in the solutions. One of these stakeholders is the corporate sector.

> *"Corporate activity must extend beyond the traditional horizons of the local community to build partnerships with other stakeholders. Achieving necessary scale from the myriad encouraging cases will require expanded commitment to partnership, sustainability, capacity building and an unprecedented commitment of all stakeholders."*
>
> The GHI's *Private Sector Declaration Against HIV/AIDS,* Bangkok, Thailand, July 2004. (Signed by 29 global and national business coalitions.)

The corporate sector has already made some important contributions to improving health services in Sub-Saharan Africa. Many companies have set up health workplace policies with community outreach and have taken a lead in creating PPPs for fighting diseases. To be successful, these initiatives have had to address challenges within health systems. For example, Merck's 20-year partnership with the African Programme for Onchocerciasis Control, WHO and the World Bank has been successful because it painstakingly built a foundation for community participation in health. Abbott, Anglo-American, Bristol-Myers Squibb, Coca-Cola, De Beers, Merck, Pfizer and many others have formed partnerships for HIV/AIDS prevention and

treatment, and developed similar relationships with communities and governments.[33] However, PPPs that directly address the strengthening of health systems are far less common. The next section of this white paper for consultation identifies opportunities for additional PPPs in this area.

VI. Strategic Opportunities for Business in Strengthening Healthcare Systems

> *"These are our competences that we live and die by—the skills of good management, accounting, financial planning, business planning, integration of systems around information technology, procurement, supply chains, metrics, monitoring, piloting . . . ."*
>
> Business leader at Gaborone Workshop

In the paper entitled "Opportunities for Business in the Fight against HIV/AIDS," the authors argue that:

> Business brings with it qualities that can turn the tide of the epidemic. The entrepreneurial spirit and problem-solving expertise that the private sector brings to the table mean that most companies operate with a core set of skills that can be leveraged to have some positive impact upon the epidemic. Efficiency of operations, overcoming obstacles, responsibility for achieving tangible outcomes and accurately gauging perceptions on human behaviour help businesses to thrive and are prerequisites for success in battling the pandemic locally, nationally and internationally.[34]

These qualities are even more important in meeting the challenges facing health systems. In the area of **management**, for example, corporations are skilled at running efficient operations on a large scale in very different environments, with a performance-focused, results-driven approach.[35] The area of **financial strategies and accountability** is a particular strength of businesses, where survival depends on achieving financial targets and requires tight control and allocation of resources in competitive environments. In meeting the challenge of **improving access to care for rural and vulnerable populations**, the business community is adept at solving technical and operational barriers to meeting customers' needs; many companies have considerable experience in delivering products and services to remote locations. Finally, in the area of **quality systems**, businesses must comply with multiple stringent regulatory and accreditation bodies and ensure consistently high product and service quality under difficult and varied environments around the world; total quality management and continuous improvement have long become standard practice in most industries.

In the second World Economic Forum multistakeholder workshop on this issue, held in Gaborone, Botswana, in April 2006, participants came together to identify new ideas for corporate involvement in addressing the challenges within health systems.

Table 1 outlines the strategic opportunities for business involvement identified by workshop participants. Of these many possibilities, the group highlighted five opportunities that might be further developed. These and other ideas are intended only to stimulate discussion among a broader group of stakeholders over the next six months.

Table 1. Examples of What Business Can Do to Address Some of the Key Challenges Facing Healthcare Systems in Sub-Saharan Africa

Industry	Management	Financial Strategies	Access for Rural and Vulnerable Populations	Quality of Systems
Business Sector as a Whole	Support and sponsor the development of new and existing management and professional training institutions regionally and nationally. "Adopt a region" and help strengthen management of public, NGO and private facilities in that area. Foster continuous dialogue between businesses and governments to build trust, mutual understanding and collaboration by including business in public forums. Understand current gaps in the public sector and identify what private resources can be brought to bear on these gaps across a large number of stakeholders (corporate, NGO, academic) by creating an inventory of in-country needs and private sector skills (local and international). Allow countries and stakeholders to rapidly source resources to address specific needs and gaps, creating a brokering mechanism to systematically match needs with available corporate sector skills. Sponsor an African university that includes a focus on health leadership training. Build a cadre of professional healthcare managers separate from clinical managers.	Share knowledge about accounting practices and financial management mechanisms.	Advocate for other businesses in remote locations to get involved in building healthcare systems. Help train and structure incentives for community health workers to manage their own interventions. Develop volunteer programs that enable corporate employees with skills needed in field-based organizations to work with those organizations on short-term assignments to help build operational, managerial and logistic capabilities.	Help structure evidence-based quality standards (eg, in management, financial strategies) adapted to the geography/environment. Help promote a culture of CQI (Continuous Quality Improvement).
Health	Provide specific technical training, eg, on lab skills, procurement mechanisms and general management skills, to help with the scale-up of quality healthcare.	Share expertise in forecasting, accounting and budgeting practices.	Provide low-cost drugs, diagnostics or laboratory tools. Help provide healthcare training of local and community workers. Allow expert staff to help through volunteer and secondment programmes. Develop new drugs, diagnostics and vaccines that are easy to administer in remote areas.	Provide training on continuous quality management process, and provide assistance in standardizing high-quality process along the healthcare system. Provide support for setting up evidence-based quality standards and an accreditation system for healthcare institutions.
Mining & Metals	Share expertise on how to manage remote location hospitals and clinics, eg, how to procure and distribute goods to these locations.	Help estimate financial needs for rural hospital and clinic settings.	Authorize wider access (beyond own employees) to existing company healthcare services (eg, voluntary counseling and testing services). Help with infrastructure-building relevant to healthcare systems.	Help establish standards of care for health facilities in rural settings.

Table 1. Continued

Industry	Management	Financial Strategies	Access for Rural and Vulnerable Populations	Quality of Systems
Information Technology	Help develop IT systems for health data collection, management and reporting. Lend in-kind service to train staff on using the IT systems and for the maintenance and updating of systems.	Help develop IT systems to manage health system accounting processes and centrally monitor devolved financial resources.	Provide the technology necessary to ensure continued learning by nurses and doctors in remote areas (eg, via telemedicine). Help to create inexpensive and durable technologies, telemedicine and software that can link remote communities. Provide ongoing maintenance of software for remote settings.	See Business Sector as a Whole section.
Financial Services/Insurance	Provide basic training on essential performance management and professional skills.	Provide training on accounting and financial management practices. Help with the development of devolved health sector funding strategies. Support the development of viable insurance schemes at national and community levels. Help leaders of community health insurance schemes to understand and manage risk. Help to develop new risk pooling models appropriate to the unique environment in sub-Saharan Africa.	Develop a basic low-cost insurance package for high-cost interventions targeted towards rural populations. Administer insurance coverage. Implement micro-credit schemes for rural communities.	Help develop tools and guidelines for continuous quality improvement and self-monitoring of performance versus budgets.
Logistics and Transport	Provide training on distribution, forecasting and procurement practices.	See Business Sector as a Whole section.	Enable delivery of essential goods, medicines, tools and materials in remote areas.	See Business Sector as a Whole section.
Telecommunications	See Business Sector as a Whole section.	See Business Sector as a Whole section.	Provide free use/access of mobile phones for healthcare professionals in remote locations to ensure they have a means of communication with experts and opportunities for continued learning.	See Business Sector as a Whole section.
Consumer Goods	See Business Sector as a Whole section.	See Business Sector as a Whole section.	Use strength in social marketing to raise awareness of basic health issues among rural populations. Provide low-cost products where applicable (eg, foodstuffs, water). Share expertise on supply chain management. Lend in-kind distribution service on the back of existing distribution networks.	See Business Sector as a Whole section.

Strategic Opportunity #1

Develop regional and local centres of excellence in training on essential management and professional skills, based in various institutions throughout Sub-Saharan Africa. Focus on building capacity and establishing centres of excellence in least developed countries (LDC).

Goals

- To build a skilled cadre of managers and professionals to support scale-up of programmes and promote efficient management of health systems at all levels.
- To improve management attitudes, practices and capabilities in all sectors systematically and increase the performance of health systems through effective management.
- To instil a culture of continuous quality improvement and make skills development a permanent part of institutions.

How

- Groups of corporations agree to support and sponsor the development of existing management and professional training institutions regionally and nationally. Training centres of excellence could be based in a variety of settings including public health facilities, universities, institutes, corporations, NGOs, faith-based organizations and international agencies.
- Pre- and postservice courses would be offered, as well as long-term continuous education for retraining, support and mentorship. A combination of long and short courses might be delivered on-site or remotely through distance learning.
- Training centres could “adopt” facilities in more remote areas to provide a management cascade of skills building.

Target population

- Individuals and institutions associated with any element of the healthcare supply chain that play a management role.
- Healthcare providers such as doctors, nurses, lab technicians, biomedical engineers, finance and planning analysts, community health workers, home-based workers and shopkeepers, etc.

What Might Be Offered

- Basic training on general management and technical skills. Advanced skills where needed.
- Specific technical skills, in such areas as lab equipment, biomedical engineering (to keep equipment functioning), procurement and materials management.
- Training of nurses to prescribe, dispense and manage patients where no doctor is available.
- Training on guidelines and policies associated with treatment and care.

Potential Partners

- Health product suppliers, African businesses and multinational employers could help to develop models for training and provide training in specific management and technical areas.
- Governments at all levels (national, regional, local) could provide coordination with health system strategies and help to support and identify centres of excellence.
- Existing local and regional training institutions could provide trainers, develop curricula and provide facilities.
- International academic organizations could provide trainers and support curricula development (twinning programmes).

- Agencies such as the World Bank Institute and the WHO could provide expertise.
- Private providers, NGOs, faith-based organizations and public facilities could provide trainers and serve as local centres of excellence.

Possible Funding

- Pooled corporate funds for capacity development of institutions.
- Cost sharing from in-kind contributions of business experts.
- Donor funding through the World Bank Institute and others who invest in training.
- Cofunding from those who can afford to pay.
- Public funding for baseline institutional running costs, etc.
- Individuals who can afford to share in costs.
- Twinning with international academic institutions.

BroadReach: Ethiopia Management Training Programme. BroadReach, a business consulting firm which helps to develop public sector capacity in Sub-Saharan Africa by applying business and public health management expertise, has developed and deployed a rapid programme for project management training and support for health managers in Ethiopia. The programme is undertaken in partnership with a US university, the University of Washington Seattle's International Training and Education Center (ITECH). The approach is to bring in cross-sectoral and multidisciplinary teams (representing decision-makers from any function that affects the health delivery supply chain) from national, regional, zonal and district health facilities to a two-day workshop which provides training on the fundamentals of project management and detailed problem-solving on specific real-time issues. The trainees are then supported going forward through a management mentorship programme.

[9] What constituted insurable risks in each country would need to be determined.

Strategic Opportunity #2

Support the development and operations of mandatory health coverage in those countries with high out-of-pocket expenditures.

Goals

- To reduce the number of people plunged into poverty due to catastrophic health expenditures.
- To allocate public funds more efficiently and equitably.
- To lower financial barriers to access.
- To increase patient choice by funding the "demand side" and giving people purchasing power rather than simply funding the "supply side" by providing services.
- To provide opportunities for governments to focus on the role of stewardship, policy and financing, rather than service provision. As experience in other countries shows, developing a viable, sustainable insurance sector can encourage private providers and hospitals to enter the market.

How

- Assist governments in creating an *Essential Financial Protection Package*. Traditional essential intervention plans are based on those conditions that have the highest burden of disease, most often covering primary care services that are used by many people but usually do not present a financial hardship for non-poor households. Health coverage, however, is most effective at providing financial protection from high medical expenditures and sharing the financial burden for ill health between the healthy and the sick. Affordable packages can be designed to provide coverage for conditions that are relatively less common in the population but which can lead to catastrophic expenditures by households, such as hospitalizations, cancer treatment and HIV/AIDS treatment.[9]

Figure 12. Traditional Social Insurance Approach

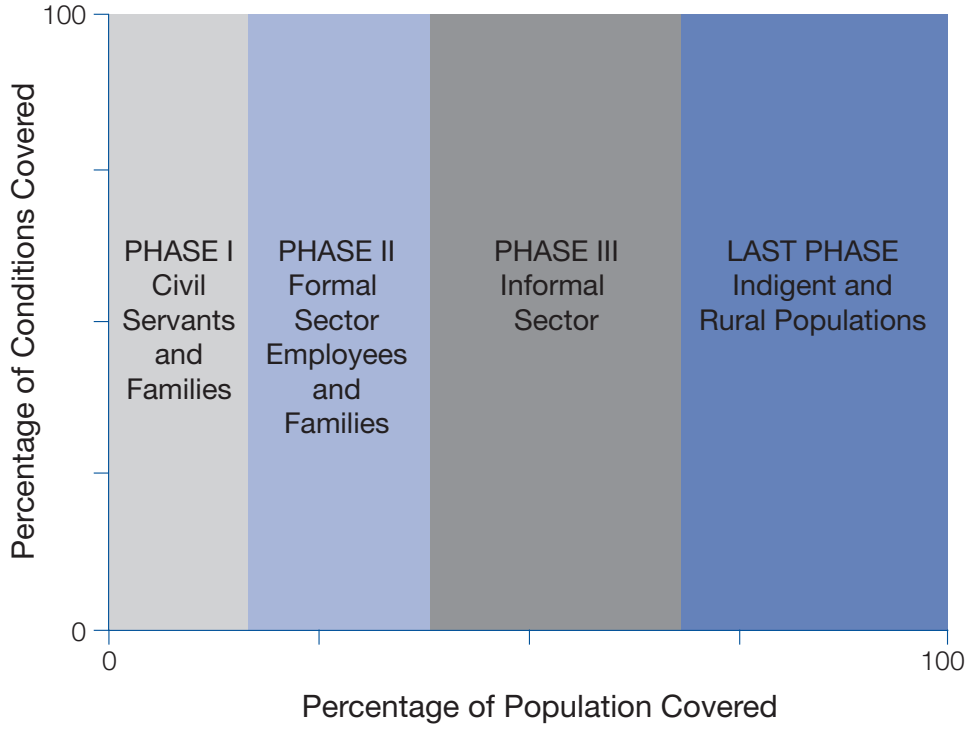
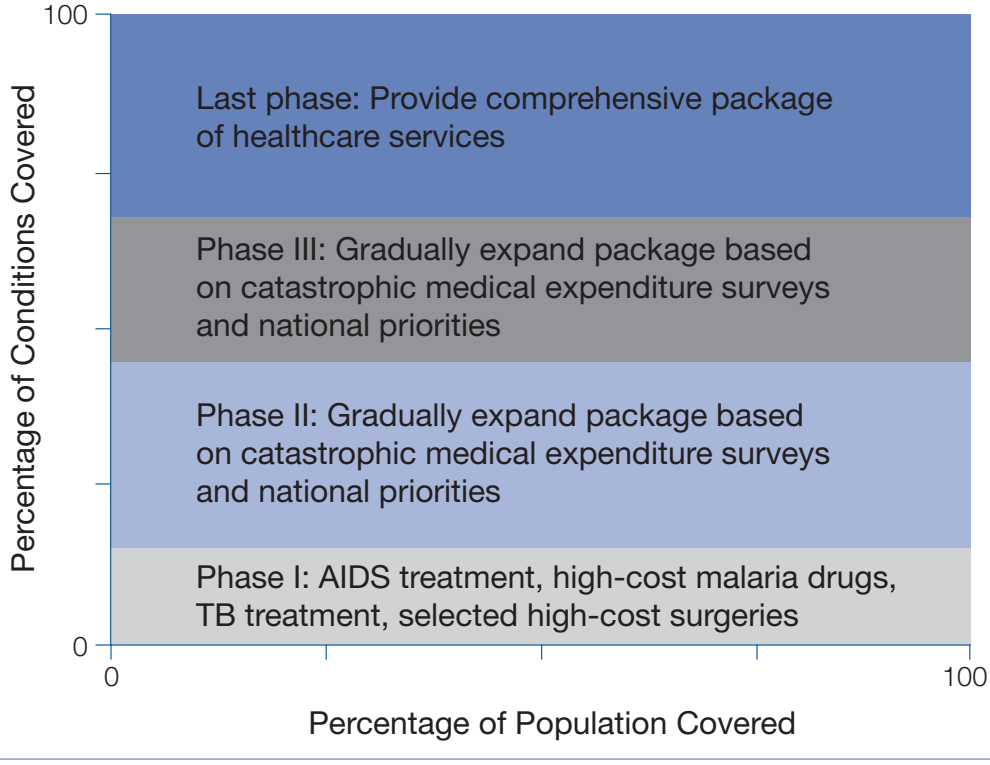


Figure 13. Essential Financial Protection Coverage Approach



- Figures 12 and 13 show the difference between this approach and traditional social insurance programmes.

What Might Be Offered

- Mandatory coverage for high-cost interventions such as HIV/AIDS treatment and high-cost malaria drugs and surgeries. Benefit packages would be defined based on affordability; additional benefits could be added over time.
- Governments might fund all or a portion of the package and establish graduated payment contributions for employers, employees and communities based on ability to contribute.

Target Population

- Indigent and vulnerable groups.
- Formal sector.
- Informal sector.

Potential Partners

- Governments could make the commitment to use this approach as a first step in ensuring financial protection and equity in financing. They could channel public funds to support this type of coverage rather than direct funding of public facilities or subsidizing formal sector insurance.
- Insurance companies could administer this coverage, provide back-office functions and share claims management expertise.
- Actuarial companies could help create and price benefit packages and contribution levels.
- IT companies and legal and commercial companies could provide back-office functions and expertise in contracting.
- Management consulting companies could help develop business process and management skills, and provide performance management expertise.
- Pharmaceutical and diagnostics companies could provide low-cost drugs, diagnostics and training for counselling.
- WHO and other international agencies could provide analyses of catastrophic expenditures.

Possible Funding

- Corporate sector through in-kind contributions of product and technical expertise.
- Governments through general and hypothecated taxes.
- Employers and employees in the formal sector through salary contributions.
- Individuals who can afford to pay through direct payment of premiums.
- International financing organizations, such as Global Fund or World Bank, might cover AIDS interventions through funding-specific package elements or by paying premiums for the poor.
- Public, NGO, faith-based organizations, private providers and corporations.

De Beers: Comprehensive Healthcare Programmes in South Africa, Botswana, Namibia, Tanzania

De Beers, a mining company which operates in several countries in Sub-Saharan Africa, has made it a part of their company mission to provide healthcare services not only to their employees but also, where possible, to the communities in which they operate. They provide a range of primary care, trauma services and hospital care to over 150,000 people in four countries.

One of their ventures, Debswana, is a partnership between the Botswana Government and De Beers. The Debswana Health service provides services to the local populations in Orapa and Jwaneng. Two 100-bed hospitals were built when the mines were established in the early 1970s because there were no health services in the area. The mine hospitals eventually came to be regarded as the district hospitals, and currently serve as referral hospitals for the public hospitals in the district. Over half of outpatients and 80% of hospitalized patients seen at the hospitals are not mine employees or their dependants. The local population is treated free of charge in these Botswana hospitals. In 2003 the mine health service became the registered site responsible for providing ARTs as part of the government's HIV/AIDS programme.

Strategic Opportunity #3

Establish minimum evidence-based quality standards specifically for LDCs focused on resource-poor and rural settings. Provide a mechanism for quality accreditation of health care facilities, laboratories and outreach centres.

Goals

- To establish quality of care and service standards that are tailored to resource-poor and rural environments in Sub-Saharan Africa.
- To provide a benchmark for quality in resource-poor settings that can be used as reassurance for consumers, governments and funders.
- To build capacity in quality management techniques and expertise and, where needed, in accreditation skills.
- To instil a culture of continuous quality improvement in health facilities.
- To provide knowledge transfer and sharing of best practices among facilities in Africa that are facing similar challenges.

How

- Establish an external, objective, voluntary accreditation organization along the lines of the International Standards Organization (ISO) or the US Joint Commission for the Accreditation of Healthcare Organizations (JCAHO). Based in a low-income country, the institution would develop and monitor quality standards for healthcare in resource-poor and rural settings. This body would be separate from national regulatory or licensing authorities but could work with these agencies to ensure coordination with national requirements.
- Contract with an existing, respected accreditation body (such as ISO, JCAHO) to work with African professional associations, business associations, existing quality assurance bodies, public and private facilities and Ministries of Health to develop standards and monitoring processes tailored to conditions in Sub-Saharan Africa.
- Several sources can be referenced to develop these standards. For example, the NGO Code of Practice[36] offers guidance on how to provide quality community services. Professional associations also provide standards of practice.
- Build accreditation capacity by training and using evaluators who are healthcare providers. Encourage knowledge transfer on quality and standards within sub-regions and countries in Sub-Saharan Africa.
- Identify advantages and incentives to seeking accreditation such as the ability to participate in clinical trials, expedited processes for funding from governments and donors and national recognition.

Target Population

- Public and private healthcare facilities that wish to improve the quality of their system and the care they provide.
- Ultimately the patients and clients of these facilities would be the primary beneficiaries.

What Might Be Offered

- Evidence-based quality standards appropriate to the environment.
- Training for accreditors.
- On-site accreditation visits and consultation services to health facilities.
- Tools for health facilities to use for self-monitoring performance on an ongoing basis.

Potential Partners

- Ministries of Health, government bodies and professional associations could support the process and ensure that standards meet national guidelines.
- Businesses, especially those in the health sector, could support development of standards and provide training on total quality management processes, based on their experience with ISO and other accreditation bodies.
- International organizations such as WHO, professional associations and NGOs could contribute to standards development.
- Healthcare facilities (public, NGO, faith-based, private) could provide input into standard-setting and volunteer staff who could serve as accreditors.

Possible Funding

- Donor and government, cofunding for establishment of standards and creation of institutions.
- Cofunding or in-kind skills contribution from businesses.
- Cofunding and in-kind expertise from accredited healthcare facilities in Africa, Europe, Asia and North America (twinning programmes).
- Public and private funding for ongoing institutional operating costs.

Becton Dickinson and Company (BD): Improving Laboratory Quality and Skills
Diagnostics are an essential quality control for drug therapy. In the absence of appropriate diagnostics, drug therapy will not be properly administered, leading to unnecessary costs for people being treated who might not require treatment and additional complications because those who require treatment are not receiving it. The problem of drug resistance is also compounded without appropriate diagnostics. Increased funding for laboratory equipment means that a greater number of hospitals and clinics can now perform more complex and reliable diagnostic tests at remote sites. The quality of skilled laboratory personnel to perform and analyze those tests presents a significant constraint to use these facilities fully. To address this problem, BD has joined forces with local ministries of health in 41 countries to provide basic training on quality control, quality assurance, standard laboratory operating procedures, record keeping, safety and testing methodologies needed to improve the quality of laboratory services. BD uses the *train the trainer* approach, focusing on laboratory workers or managers who are then capable of training others. The training has resulted in better-skilled and more motivated workers, as well as improved processes such as standardized operating procedures, testing and certification.

Strategic Opportunity #4

Take advantage of new, inexpensive technologies to build communities of practice amongst healthcare providers who are sparsely located and address the challenge of providing quality care in remote settings.

Goals

- To link healthcare providers with centres of excellence, sources of information and experts.
- To provide efficient, real-time consultation services to those in remote settings.
- To retain and develop community health workers by connecting them with a broader network for support and advice.
- To provide professional development of health workers in rural areas and encourage retention through providing support and connectivity.
- To integrate more effectively information technology (generally hardware) being funded by donors into daily management of healthcare operations in resource-poor and rural settings.

How

- Provide simple and low technology telemedicine using mobile telephones and/or personal digital assistants (PDAs) to create communities of practice between isolated clinical staff and community health workers.
- Engage IT companies to build inexpensive sofware tailored to managing in resource-poor environments and remote locations, leverage Internet broadband where available.

Target population

- Community health workers and health professionals in isolated areas.
- Managers and health professionals in rural and resource-poor communities.
- Rural populations and populations that are difficult to reach.

What Might Be Offered

- Reliable technologies—such as mobile telephones, PDAs, computers—that are robust and appropriate to the setting.
- Software to support technologies.
- Basic and ongoing training in use of technologies and software.
- Ongoing maintenance of technologies and software.
- Centres of reference to link health professionals and facilities.

Potential Partners

- Government ministries could be involved with planning and implementation of health at the community level.
- The IT sector could provide technology, software development, skills training as well as maintenance and equipment support.
- Businesses based in Africa, such as mining companies, could share existing IT systems.
- Health companies could help develop software content.
- NGOs/healthcare organizations could be involved in software development and technology selection.
- NGOs in other low-income countries that already use these technologies and have low-cost software could provide advice, technology and knowledge transfer, such as the Aravind Eye Institution in India.

- International organizations, such as WHO, and national organizations with a technology focus could support development of technical standards and compatibility within countries and across national boundaries.

Possible Funding

- Funding for model development and new software development could come from governments, NGOs, donors, software developers, IT companies.

Strategic Opportunity #5

Develop programmes to empower communities to determine their own health needs. More specifically, such programmes would select, train and support influential community members so they can cater to the basic health needs of their community.

Goals

- To address inequities in access to healthcare and allow outreach to the most vulnerable communities. To provide 24/7, holistic and accessible care for rural communities.
- To train and empower rural communities to be able to take ownership of their own health issues and the related solutions.
- To foster development within a community, starting with community health programmes.
- To support the role of community health workers so that they remain engaged and grow into community health experts over time.

How

- Groups of companies, government entities and NGOs would agree to support a selected community in partnership.
- Phases of work to be carried out by the group
  - —Define the community and problems to be targeted in conjunction with the government.
  - —Mobilize the community leaders/influencers.
  - —Develop the holistic package to address the major issues in conjunction with the community. Most importantly, the solutions would be developed in conjunction with communities and leverage existing programmes/initiatives where these exist in the community.
  - —Identify gaps in resources and skills needed to implement the solutions.
  - —Develop a funding, action, monitoring and evaluation plan. The emphasis should be on monitoring and evaluating programmes with the community so they are able to learn and redefine their own needs.
  - —Mobilize the community at large.

Target population

- Resource-limited and vulnerable communities.

What Might Be Offered

- Financial and training resources to community health workers.
- Health information in local languages.
- Structured linkages to existing health facilities.

Potential Partners

- All ministries in governments involved with planning and implementation of health at community level could support planning and implementation of the programmes.

- Businesses could advocate for other businesses to get involved and transfer organizational thinking to health management challenges.

- Businesses could support programmes by filling in the knowledge, management skill and funding gaps. Examples of how different sectors can do this include:

  —Mining sector—could help with infrastructure building and capacity.

  —Healthcare sector—could provide business, financial and project management skills, access to medications, training for disease areas, supply chain and procurement expertise and technology transfer.

  —Fast-moving consumer goods companies—could help with awareness and social marketing.

  —Horticulture sector (tea estates, coffee estates, etc)—could extend "in the fence" programmes to the outside communities.

- NGOs/community-based organizations/faith-based organizations—could be the implementing partners.

Possible Funding

- Pooled corporate funds and expertise to support the community health worker support package (such as training, information).

- Public funding and provision of medical supplies.

- Local NGO resources to foster continuous engagement with the communities.

Existing Examples of Similar Successful Programs

- AMREF and GlaxoSmithKline: Uganda's community drug distributors.

- AMREF and AstraZeneca: Eastern Cape, community-based management of TB.

- Bristol-Myers Squibb Company: Secure the Future programme—a community-based treatment support for HIV/AIDS in resource-limited settings—6 countries.

- Merck: Mectizan Donation programme—uses community health workers in some 90,000 communities in more than 30 countries to help in treating some 70 million people each year at risk of river blindness or lymphatic filariasis.

The Bristol-Myers Squibb "Secure the Future" Community-based Treatment Support Programme

Secure the Future (STF) has established an innovative, community-based treatment support programme in five southern African countries to determine if comprehensive medical treatment, when combined with broad-based community support, can be successful in fighting HIV/AIDS in very resource-limited settings. These programmes provide support not only during the half hour with patients in the clinic but also for the other twenty-three and a half hours of their day. The programmes were agreed upon after consultation with the relevant governments. They are tripartite partnerships among the communities (NGOs, community-based organizations and faith-based organizations), a public health facility and the private sector. STF provided funding, access to medication and capacity-building in financial management, project management and operational research skills. The programmes were designed by local stakeholders. Chiefs, traditional leaders and healers were actively engaged. Community activities and support services include community mobilization, education and prevention, voluntary counselling and testing, home-based care, psychosocial support, training in wellness and positive living, buddies, food security, income-generating activities and orphan care.

Extensive monitoring and evaluation are incorporated in the programme and results exceed expectations. After two and a half years of operation, more than 10,500 patients have been enrolled, of whom more than 4,250 are on antiretrovirals. The response rate is 67% measured in sustainable increase in CD4 count and 76% in undetectable viral load. Eighty-two percent of the patients are more than 95% adherent. Those who are not on antiretrovirals have access to all the community support services, with the objective of keeping them as healthy as possible. Community mobilization, education and testing have been strong. Since the start of the programme, there has been a ten-fold increase in voluntary counselling and testing, changing from approximately 100 people to more that 950 per month. Initial data demonstrate improvement in patients' quality of life and reduction in stigma, both correlating with the level of community support. It is now the objective of the initiative to develop a tool kit available for public use for establishing holistic programmes for managing HIV/AIDS patients in resource-limited settings, with the community taking the leading role.

Bibliography

1. World Health Report 2006: Working Together for Health. Geneva: World Health Organization, 2006.
2. World Development Report 2004: Making Services Work for Poor People. Washington D.C.: The World Bank, 2004.
3. Jamison DT, Feachem RG, Makgoba MW, Bos ER, Baingana FK, Hofman KJ, et al. *Disease and Mortality in Sub-Saharan Africa.* Second Edition ed. Washington D.C.: The World Bank, 2006.
4. National Health Accounts Database: World Health Organization, 2003.
5. McKinnell H. *A Call to Action: Taking Back Healthcare for Future Generations*. New York: McGraw-Hill, 2005.
6. O'Hara P. *Creating Social and Health Equity: Adopting an Alberta Social Determinants of Health Framework Edmonton:* Edmonton Social Planning Council, May 2005.
7. Mills A. Vertical vs horizontal health programmes in Africa: idealism, pragmatism, resources and efficiency. *Soc Sci Med.* 1983;17:1971-1981.
8. The World Health Report 2000: Health Systems Improving Performance. Geneva: World Health Organization, 2000.
9. Nolte E, McKee M. Measuring the health of nations: analysis of mortality amenable to health care. *BMJ*. 2003;327:1129.
10. Improving health, nutrition, and population outcomes in Sub-Saharan Africa : the role of the World Bank. Washington, D.C.: World Bank, 2004.
11. Xu K, Evans DB, Kawabata K, Zeramdini R, Klavus J, Murray CJL. Household catastrophic health expenditure: a multi-country analysis. *Lancet.* 2003;362:111-117.
12. Sachs JD, editor. Report of the Commission on Macroeconomics and Health. Macro Comm on Health ed. Geneva: World Health Organization, 2001.
13. Sekhri N, Savedoff W. Private health insurance: implications for developing countries. *Bull World Health Organ*. 2005;83:127-134.
14. Marek T, O'Farrell C, Yamamoto C, Zable I. Trends and Opportunities in Public-Private Partnerships to Improve Health Service Delivery in Africa. Washington: World Bank. Sara Project, June 2005:45.
15. Schmidt J-O. Thresholds for Health Insurance in Rwanda: Who should pay how much. 2006.
16. The Global Fund to Fight AIDS, TB, and Malaria. Geneva, 2006.
17. Kalk A, Mayindo JK, Musango L, Foulon G. Paying for health in two Rwandan Provinces: financial flows and flaws. *Trop Med Int Health*. 2005;10:872-878.
18. Kenya MoH. Reversing the trends. The second National Health Sector Strategic Plan I(NHSSP II:78). 2005.
19. Castro-Leal F, Dayton J, Demery L, Mehra K. Public spending on health care in Africa: do the poor benefit? *World Health Organ.* 2000;78:66-74.
20. Gilson L, Mills A. Health sector reforms in Sub-Saharan Africa: lessons of the last 10 years. *Health Policy.* 1995;32:215-243.
21. Omaswa F. Informal health workers - to be encouraged or condemned? *Bull World Health Organ*. 2006;84:83.
22. Harding A, Preker AS, editors. *Private Participation in Health Services*. Washington D.C.: The World Bank, 2003.
23. Chen LC, Tim E, editors. *Human Resources for Health: Overcoming the Crisis*. Cambridge: Harvard University Press 2004.
24. Buchan J, Sochalski J. The migration of nurses: trends and policies. *Bull World Health Organ*. August 2004;82:587-594.
25. Cohen JC, Kassirer JP, Bale H, Williams JR, Akunyili D. Corruption in the Pharmaceutical Sector. Corruption and Health, 2006.
26. Corruption in health care costs lives. *Lancet*. 2006;367(9509):447.
27. Global Corruption Report 2006: Corruption in Health. London: Pluto Press, 2006.
28. Institute for Health Sector Devleopment. Private Sector Participation in Health. London: Institute for Health Sector Development, 2004:123.
29. Kumaranayake L, Mujinja P, Hongoro C, Mpembeni R. How do countries regulate the health sector? Evidence from Tanzania and Zimbabwe. *Health Policy Plan*. 2000;15:357-367.
30. Wagstaff A, Claeson M. The Millenium Development Goals for Health: Rising to the Challanges. Washington D.C.: The World Bank, 2004.
31. Magretta J. What Management Is: How it works and why it's everyone's business. London: HarperCollins, 2002.
32. Litvack J, Bodart C. User fees plus quality equals improved access to heath care: results of a field experiment in Cameroon. *Social Science and Medicine*. 1993;37:369-383.
33. Nelson J. Building Public Sector Capacity to Address HIV/AIDS: The role of the private sector. Boston: Corporate Social Responsibility Initiative, John F. Kennedy School of Government, April 2005.
34. Opportunities for Business in the fight against HIV/AIDS: University of Cape Town, Columbia University, Global Business Coalition, 2005.
35. *Harnessing Private Sector Capabilities to Meet Public Needs: The Potential of Partnerships to Advance Progress on Hunger, Malaria and Basic Education*. Geneva, Switzerland: World Economic Forum, January 2006.
36. Cabassi J. The NGO HIV/AIDS Code of Practice. In: Wilson D, editor. [BOOK TITLE NEEDED] London, England: Oxfam Publishing, 2004.

Case Studies: Bibliography

Malaria Case Study

Kidane G, Morrow RH. The Ethiopia study. Teaching mothers to provide home treatment of malaria in Tigray. Ethiopia: a randomised trial: *The Lancet.* 2000;356:550-555.

Sirima SB, Konate A. The Burkina study. Early treatment of childhood fevers with pre-packaged antimalarial drugs in the home reduces severe malaria morbidity in Burkina Faso. *Trop Med Int Health*. 2003;8:133-139.

Tiono AB, Convelbo N, Cousens S, Pagnoni F. Early treatment of childhood fevers with pre-packaged antimalarial drugs in the home reduces severe malaria morbidity in Burkina Faso. *Trop Med Int Health*. 2003;8:133-139.

Ugandan private providers guidelines.

Improving Child Healthcare Practices of Private Providers – Guidelines for Monitoring and Documentation. Ministry of Health, Uganda, March 2002.

[GLOBAL, THIS SECTION: All web sites need "accessed on" dates]

Improving Child Healthcare Practices of Private Providers – A Training and Negotiating Guide. Ministry of Health, Uganda, March 2002.

WHO, 2004. TDR: scaling up home-based management of malaria http://www.who.int/tdr/publications/publications/home_2004.htm

WHO, 2005. The Home Management of Malaria strategy http://www.who.int/malaria/docs/RBM_Strategy_HMM_sm.pdf

Tanzania Essential Health Interventions Project Case Study

Armstrong Schellenberg J et al. Inequities among the very poor: healthcare for children in rural southern Tanzania. *Lancet.* Published online February 4, 2003. http://image.thelancet.com/extras/02art2280web.pdf

Case study: Fixing Health Systems. 1. Team Players. Building the skills of local healthcare planners. www.idrc.ca/tehip

Case study: Fixing Health Systems. 2. Building Better Health. Enlisting the aid of communities to improve the health system. www.idrc.ca/tehip

Case study: Fixing Health Systems. 3. Crunching the Numbers. Using evidence about the population's health helps to effect change. www.idrc.ca/tehip

De Savigny D, Kasale H, Mbuya C, Reid G. Fixing Health Systems. International Development Research Centre 2004. (Available on www. idrc.ca/books)

De Savigny D et al. Care Seeking Patterns in Fatal Malaria: Evidence from Tanzania. *Malar J*. 2004;3:27.

Research-Policy Case Study – TEHIP. Research and Policy in Development.

The Rapid Funding Envelope for HIV/AIDS: Tanzania. Management Sciences for Health.

The Tanzania Essential Health Interventions Project. www.idrc.ca/tehip

ACHAP Case Study

ACHAP Web site. Available at: www.achap.org.

Distlerath L, MacDonald G. The African Comprehensive HIV/AIDS Partnerships—a new role for multinational corporations in global health policy. *Yale Journal of Health Policy, Law and Ethics.* 2004;4:147-155.

Sturchio JL. Reflections on the themes of What is the role of business and transnational corporations in enhancing and/or developing community values and cultural difference? Can new forms of cooperation based on cultural innovation help us to develop new solutions to the major global challenges of the 21st century: HIV/AIDS, environmental crisis, poverty, social inequality? [Seminar at the London School of Economics.] London, England; June 16-17, 2005.

Notes

WORLD ECONOMIC FORUM

COMMITTED TO IMPROVING THE STATE OF THE WORLD

The World Economic Forum is an independent international organization committed to improving the state of the world by engaging leaders in partnerships to shape global, regional and industry agendas.

Incorporated as a foundation in 1971, and based in Geneva, Switzerland, the World Economic Forum is impartial and not-for-profit; it is tied to no political, partisan or national interests. (www.weforum.org)

This material was prepared with the support of Becton Dickinson and Company, Merck & Co., Inc., and Sudler & Hennessey.