The Health and Wealth of Africa

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Overview

Many African economies appear to be in a poverty trap—a vicious cycle of poverty, debt, disease, poor governance, and lack of basic resources—from which escape often seems impossible. While countries on other continents sometimes amaze the world with their takeoff into growth, the perpetual stagnation of most Sub-Saharan African economies has become a sad fact of life. Escaping from the poverty trap is difficult because Africa faces multiple sources of deprivation and each must be addressed. This paper makes the case for investing in health as a central part of a development strategy for Africa.

Development specialists have long recognized health as a worthy moral and social goal, but compelling evidence now indicates that good health is also a fundamental cornerstone of national economic growth and poverty reduction. Health is a form of human capital and an essential part of creating a productive society. Thus any coherent vision of African development must incorporate health improvements as a central component. Health has the potential to trigger virtuous development spirals: East Asia benefited enormously from medical and public health advances in the 1940s and 1950s that spurred a demographic transition in the region and greatly boosted economic growth. Likewise, poor health can reverse economic gains. Health setbacks can push families into poverty and, as the severe acute respiratory syndrome (SARS) outbreak in parts of Asia and in Toronto, Canada, showed in 2003, it can hinder business activity and deter foreign investors and tourists. Without good health, Africa's children will

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be unable to derive the maximum benefit from schooling, its adults will be unable to work to their potential and save, and the overall performance of Africa's economies will continue to lag behind the rest of the world.

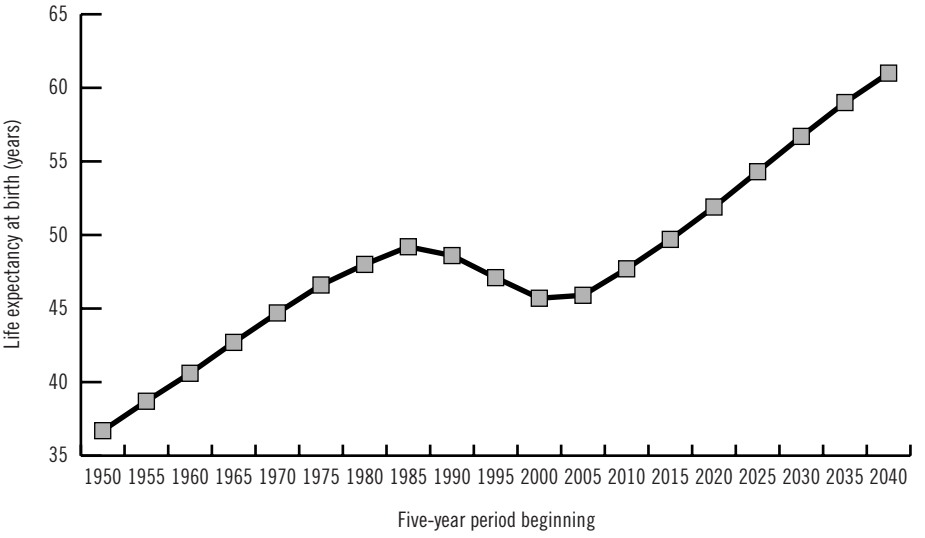
Improving Africa's health is by no means an insurmountable task. Indeed, one reason for promoting health interventions is that improvement in this area is possible even in the poorest African countries. Relatively simple, low-cost interventions, ranging from broadcasting public health messages, to launching vaccination campaigns, to working with nongovernmental organizations (NGOs) to promote access to safe water and sanitation, can have large positive effects on a country's health and wealth. As Senegal and Uganda have shown, the spread of pandemics such as HIV/AIDS is not inevitable. There is an important caveat here, however: investing in health will have a far greater effect if sound macroeconomic policies, good governance, and other measures that promote economic growth and social development accompany such investments.

Resources for investments in health can come from two main sources. The first source is, of course, the countries themselves. Most health spending in Africa is undertaken privately by households seeking to improve their health. Government resource allocations, which are often skewed either away from health altogether or away from the most important and cost-effective instruments for improving health, need to be rationalized and evaluated in terms of costs, benefits, and rates of return. This is the same frame of reference used by other parts of government in competing for limited resources; however, in the poorest African economies domestic resources are woefully unequal to the task.

The second source is therefore international assistance. African leaders need to appeal to the interests of international donors in seeing the emergence of an African continent that is healthier and wealthier. In addition to the economies of scale African countries could realize by pooling their resources and working together to address the continent's fundamental health problems, projecting an image of seriousness and cooperation would be a powerful magnet for international support. Today's donors are increasingly keen to see a visible return on their investments. Demonstrating the economic benefits of an intervention will send a clear message that funds are being used well.

To achieve these aims, health ministries, like all public and private entities, will need to use their resources cost-effectively. They will need to

Figure 1: Life expectancy in Sub-Saharan Africa was low but rising before the recent downturn



Source: United Nations (2002)

enlist support from civil society and the private sector and, where appropriate and possible, delegate responsibilities to them. They will also need to use their influence to project a clear vision for their countries' health to all those involved in trying to improve it.

If carried out judiciously, government policies and programs to protect and promote good health can serve political needs by satisfying moral, humanitarian, and social demands. Most significant, well-planned government intervention in the health arena can lead to key achievements that private provision of health care cannot realize.

This paper focuses on the central role of health in the development process. Africa is not only the world's poorest continent, but also its least healthy.[1] HIV/AIDS is ravaging the region's workforce and shortening average life expectancies (Figure 1). Malaria and tuberculosis remain rampant despite the availability of preventive strategies. The young also have

[1] We recognize that Africa varies tremendously in terms of geography; economic, social, and political conditions; and history. The health performance of African nations also differs. Nevertheless, we are confident that some general characterizations apply to much of the continent and have endeavored to focus on such issues and draw broadly applicable conclusions.

many dangerous obstacles to avoid if they are to reach working age in sufficiently good health to contribute to their societies: infant mortality rates are many times higher in Africa than in the industrial world (CMH 2001), child mortality may actually continue to rise rather than fall by the Millennium Development Goal target of two-thirds by 2015,[2] and vaccination coverage against the major childhood diseases in some countries has plummeted in recent years according to the World Health Organization (WHO and UNICEF 2002).

Such deficits are impeding Africa's development. In this article, we outline the links between health and economic development and present empirical evidence that supports the links. We then discuss some of the main issues for improving health in Africa, looking at the region's successes and failures as well as the constraints and opportunities facing governments. Finally, we outline some broad themes that may form part of an action plan for improving health in Africa.

Evolving views of health and development

As countries become richer, they have more money to spend on their populations' health. Higher income promotes better nutrition; better access to safe water, sanitation, and quality medical care; and better health-seeking behavior—all of which tend to improve overall health in a country.

Some governments have therefore treated health as a luxury that only rich countries can afford. International financial institutions, which have tended to direct their lending toward infrastructure projects and education at the expense of health, have often encouraged this viewpoint. While infrastructure and education are clearly vital for economic growth, in recent years recognition has been growing that good health is not just a consequence but also a cause of development.

In 2000, all member states of the United Nations adopted the Millennium Declaration. The intent of the eight Millennium Development Goals enunciated in the declaration is to contribute to the overarching aim of eradicating poverty. The fact that three of the goals

[2] According to the United Nations Millennium Development Goals web site: "Rapid improvements before 1990 gave hope that mortality rates of children under five could be cut by two-thirds in the following 25 years. But progress slowed almost everywhere in the 1990s, and in parts of Africa infant and child mortality rates increased." http://www.developmentgoals.org/Child_Mortality.htm.

relate directly to health is evidence of the increasing attention it is receiving as a driver of economic and human development. The international community sees these goals—reducing child mortality; improving maternal health; and combating HIV/AIDS, malaria, and other diseases—as central to reducing poverty.

The Commission on Macroeconomics and Health (CMH), which the World Health Organization set up in 2000 to "assess the place of health in global economic development," gave further momentum to the view that health is a tool for development. In a recent report (CMH 2001) the commission notes that as well as saving millions of lives every year, improving the poor's access to health services could "reduce poverty, spur economic development, and promote global security." The report adds that "[t]he burden of disease in some low-income regions, especially sub-Saharan Africa, stands as a stark barrier to economic growth," and therefore any comprehensive development strategy must address health head on.

The importance of health to development

From health to wealth

Health has an effect on the economic potential of individuals, firms, and societies. At the individual level, good health has effects throughout the life cycle. It allows children to attend school, learn more effectively, and develop the mental and physical strength they will need for productive working lives. It allows working-age adults to attend work regularly because of fewer absences caused by illness or the illness of a family member, be fitter while at work, and concentrate better on the task at hand in the absence of worries over their own or their relatives' health. It also allows them to plan for the future with more confidence, which makes saving more attractive and encourages parents to invest in the health and education of their children. Improvements in health can amplify the effects of investment in education: Sick teachers will not teach well and sick children will not learn well. In addition, workers' ill health both wastes the investment in their upbringing and education and often leads to job loss and the need to sell assets to pay for health care, a much less productive use of people's assets than investing in their children or in a business. Finally, good health enables older adults to work more effectively for longer and perhaps be less of a burden on other relatives.

At the firm level, unproductive staff can have serious impacts on competitiveness. Sick and absent workers are not only unable to work well themselves, they may also affect staff morale and team cohesion. Where workers have to quit their jobs, the costs of recruiting and training new workers divert funds from more productive activities, and the knowledge and experience lost when a worker leaves or dies can be difficult and costly to replace. Moreover, in countries with widespread epidemics of fatal diseases such as HIV/AIDS, a firm's customer base may also be either diminished or less able to spend on products that are not related to health care.

Health affects the economic potential of societies as a whole in six main ways, as follows:

- Unhealthy populations that are unable to work effectively can deter foreign investors.

- As shown by the scare over SARS, which led some governments to warn people against traveling to Beijing, Hong Kong, Taiwan, and Toronto, health problems can also deter tourism, which is a substantial source of revenue for many economies.

- Insecurity about health is likely to reduce the level of savings. If people fall ill, they have to withdraw savings to pay for health care. If they expect to fall ill or to die young, they may decide to spend rather than to save, and are also less likely to invest in productive activities if they will not live to reap the benefits. This, combined with governments' need to invest resources in health care, reduces the capital available to governments to invest in building up infrastructure and promoting economic development. The huge savings booms in Japan, Singapore, South Korea, and Taiwan that fueled their prodigious investment and growth rates from the 1970s through the late 1990s can largely be attributed to rising life expectancies and savings for retirement.

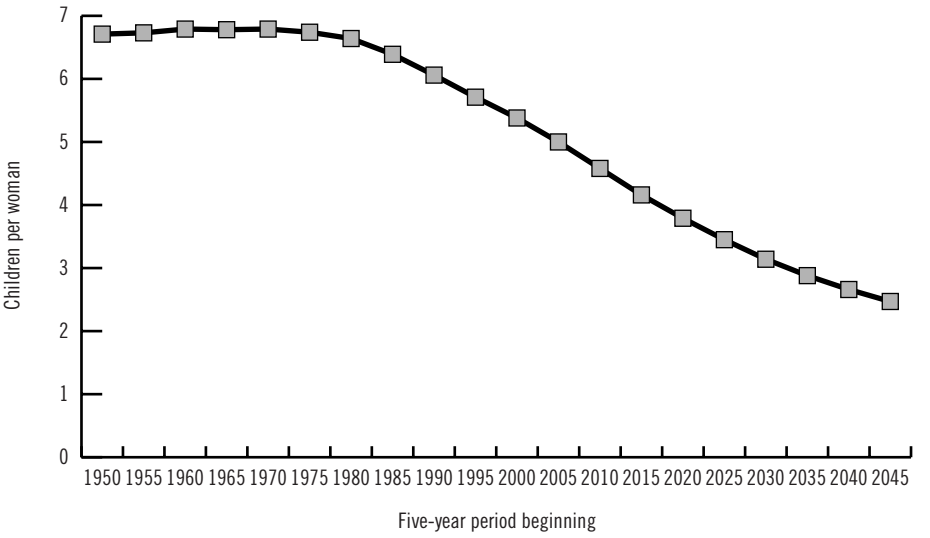
- Ill health imposes a burden on the poor that affects society as a whole. The poor suffer the most from ill health because they often lack access to clean water and sanitation, live in the most environmentally fragile areas, and are difficult to reach with medical care and information, plus

physical labor is their main economic asset. A health setback in a poor family can deepen poverty as the family not only loses its income through absence from work, but also sells off its assets to pay for medical costs (Bloom and Canning 2003b). Health shocks can also plunge non-poor families into poverty, thereby increasing the burden on the state of having to support social programs that target poor communities.

- Poor health can damage economies by triggering social breakdowns. Poor, sick communities are often beset by a lack of cohesion. HIV/AIDS, for example, has orphaned millions of children in Africa, many of whom end up living on the streets and are easy recruitment targets for criminal gangs and armies. As a consequence, poverty traps become deeper and more difficult to escape.

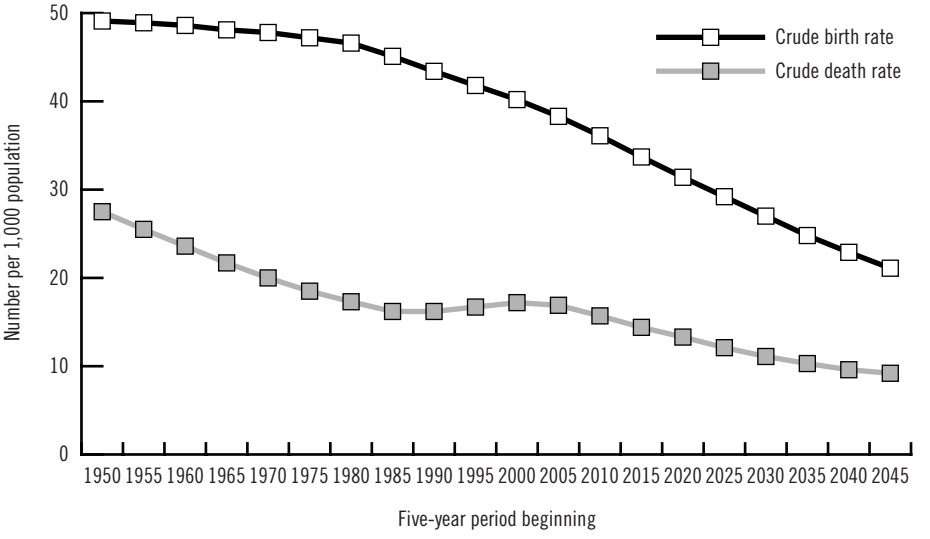
- In healthy societies, parents can feel confident that their children will survive to adulthood. They therefore need to have fewer children to attain their ideal family size. By contrast, in unhealthy societies people will have more children to ensure that some survive to adulthood. This means that families' resources have to be spread more thinly, so each child receives less investment in his or her education and families' long-term economic prospects remain bleak. High fertility rates also mean that the number of people too young to work remains high compared with the number of people of working age, and a large proportion of earnings is therefore channeled into supporting children rather than investing in activities that will boost economic growth in the short term. East Asia has benefited greatly from its demographic transition, in which lower infant and child mortality rates prompted families to have fewer children. The lag between mortality and fertility declines resulted in a "bubble" generation that was substantially larger than preceding and subsequent generations. When this "baby boom" cohort reached working age, it was able to contribute greatly to Asia's economies without the burden of a large youth cohort to support (Bloom and Williamson 1998; Bloom, Canning, and Malaney 2000). Africa has yet to experience such a demographic dividend, as fertility rates have generally remained high (Bloom, Canning, and Sevilla 2002). However, if health conditions improve significantly, fertility rates will probably eventually fall, thereby opening the door to a significant demographic

Figure 2: Sub-Saharan Africa's total fertility rate is still very high; predicted change is slow



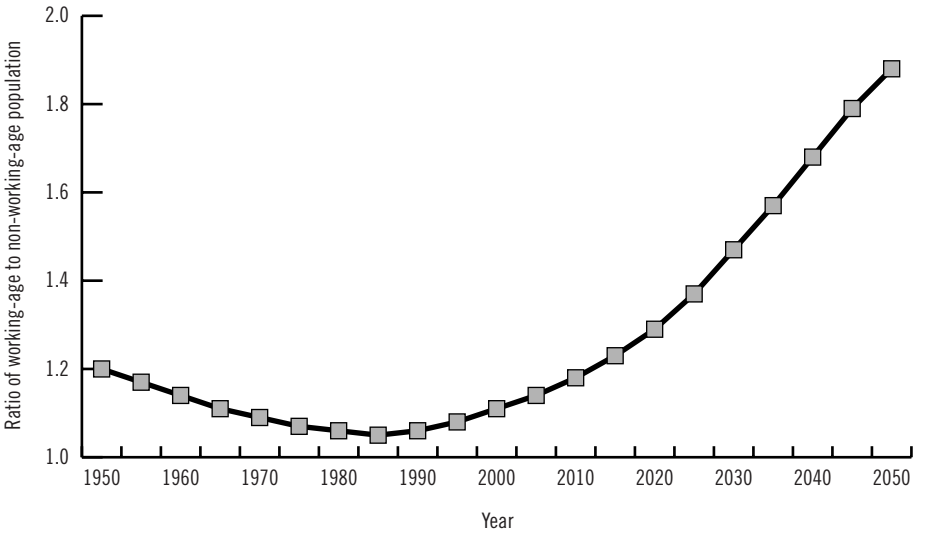
Source: United Nations (2002)

Figure 3: In Sub-Saharan Africa, the birth rate and death rate are converging very slowly



Source: United Nations (2002)

Figure 4: Ratio of working-age to non-working-age people in Sub-Saharan Africa: the peak is far ahead



Source: United Nations (2002)

dividend. Figures 2 through 4 show the trends over time of fertility rates and crude birth and death rates in Sub-Saharan Africa and the consequent ratio of working-age to nonworking-age people. The predicted changes in these demographic indicators augur well for eventual economic growth in the region, although enabling policies will be needed to ensure that countries will be able to realize the demographic dividend.

The gist of these arguments is that health, beyond being highly valued in its own right, is a useful instrument for promoting economic growth. Recent work by Jamison, Jamison, and Sachs (2003) focuses attention on the notion of "full income", which is a broader notion of welfare that includes the monetary value of gains in life expectancy along with growth in income per capita in evaluating welfare gains. This method shows that valuing these gains in life expectancy makes a big difference when assessing the factors underlying economic growth. For example, the "full income" methodology puts the welfare gains for the United States over

the last century from health improvements as roughly equal in magnitude to the welfare gains from economic growth. For many developing countries the direct welfare gains from health improvements over the last 50 years have exceeded the gains due to rising incomes.

The supporting evidence

As noted, the intuitive arguments for a link from health to wealth are manifold. The issue is whether this intuitive reasoning is supported by hard evidence.

Numerous studies attest to the positive impacts of health improvements on economic growth. Recently, researchers have started to use disability adjusted life years (DALYs) to estimate the health burdens on a population. DALYs take into account both the years lost to illness through premature death and the effects of morbidity. The CMH (2001) finds that the number of DALYs lost to malaria and AIDS in Sub-Saharan Africa translate into astonishingly high effects on the region's gross national product (GNP).[3] The report adds that if deaths from infectious diseases and maternal conditions in developing countries could be reduced by 8 million per year by 2015, this would result in roughly $200 billion to $500 billion per year in direct economic benefits stemming from people's increased labor earnings.

These overall economic impacts work through the channels cited earlier. For example, health has a significant effect on labor productivity (Schultz 2001; see also Bloom and Canning 2003a). In the southern United States, the eradication of hookworm led to increased labor productivity, which spurred the region's economic growth in the early 20th century. Fogel (1991, 1997, 2000) shows that body size, which results from good health in childhood as well as dietary factors, is a critical determinant of long-term labor productivity. Meanwhile Bloom, Canning, and Sevilla (2004) calculate that a one-year increase in life expectancy can spur a 4 percent increase in labor productivity. Several studies Schultz (2001) cites show that workers who had been absent from work in the recent past received significantly lower hourly earnings, and Strauss (1986) finds that increases in caloric intake raise a family's labor productivity. Strauss also finds that this effect was especially strong for poor families that had

[3] By contrast, Shepard and others (1991) estimate that malaria costs the region 1 percent of its GDP per year.

previously had a low caloric intake. Murrugarra and Valdivia's (2000) study in Peru supports the finding that health improvements have stronger impacts on the productivity of the poor. Both studies also ascertain that the payoff to health improvements is subject to diminishing returns; that is, people only need to achieve a certain level of health to become sufficiently productive. Beyond this level, further investments may best be directed elsewhere.

As noted earlier, health's effect on demography also plays a part. East Asia's demographic transition was spurred by declining infant and child mortality brought about by medical and public health improvements (Bloom and Williamson 1998). From 1965 to 1990, the region's working-age population grew four times faster than its dependent population. As Bloom, Canning, and Sevilla (2002) observe: "[A] virtuous spiral was thus created, whereby population change increased income growth, and income growth pushed down population growth—and therefore the number of dependents—by reducing fertility." Investigators estimate that the demographic transition accounted for as much as one-third of East Asia's so-called economic miracle (see, for example, Bloom and Williamson 1998; Bloom, Canning, and Malaney 2000; Mason 2001).

Of course, HIV/AIDS has had an enormous effect on demographic patterns in Africa. The United Nations estimates that life expectancy in Sub-Saharan Africa today is seven years lower than it would have been without AIDS. AIDS primarily afflicts people of working age, and Bloom, Canning, and Sevilla's (2002) study of the disease in Thailand points to the potential economic impacts on Africa. HIV/AIDS began to look like a serious problem for Thailand in the early 1990s, with some predictions suggesting that 10 million Thais could die of the disease by 2015. Had this occurred, the country's ratio of working-age people to total population would have been 0.67, but an extremely successful campaign has prevented rapid spread of the disease and this ratio is now projected to be 0.70. Without this shift, Thailand could have experienced a significantly slower annual rate of economic growth, to the extent that Thailand's GDP per capita in 2015 would have been reduced by nearly $1,300 from its projected level of $8,500. Unfortunately, many African countries have not had the same success as Thailand in curbing the AIDS epidemic, and as a consequence the kinds of economic effects Thailand evaded are likely to hit Africa hard.

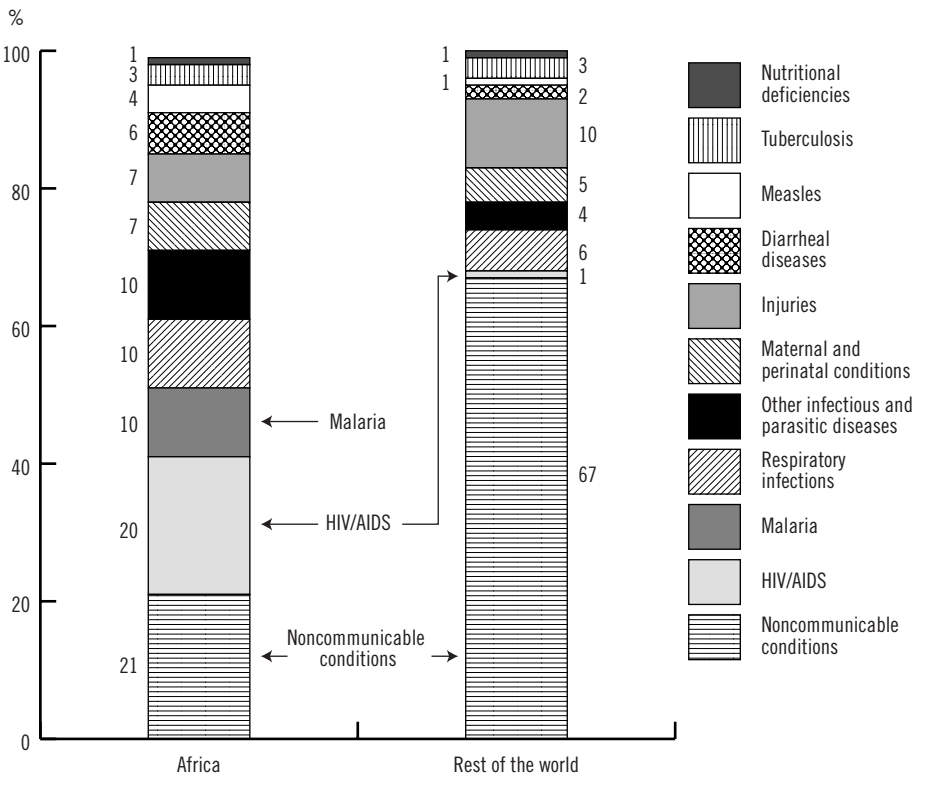
Health in Africa

The health burden

Africa is riddled with health problems. For example, life expectancy in the continent is just 49 years (and only 46 years in Sub-Saharan Africa), compared with 63 in South-Central Asia and approximately 70 in Latin America (United Nations 2002); one in three people—twice the developing country average—is undernourished; and more than 10 percent of babies die before reaching their first birthday, while 17 percent of children die by the age of five (UNDP 2002).

Figure 5 shows that the causes of death in Africa are, on the whole, very different from those in the rest of the world. Elsewhere the epidemiological

Figure 5: Causes of death in Africa differ greatly from those in the rest of the world



Source: World Health Organization, estimates for 2002

transition has meant that two-thirds of all deaths stem from noncommunicable conditions, including cancer, diabetes, and cardiovascular diseases. In Africa, by contrast, these sources account for only one-fifth of all deaths. Of all deaths in Africa, 58 percent occur as a result of HIV/AIDS, malaria, respiratory infections, other infections and parasitic diseases, or maternal and perinatal conditions, whereas elsewhere these largely preventable diseases account for only 16 percent of deaths.

The continued devastation wrought by HIV/AIDS, tuberculosis, and malaria means that while health status in most of the world is improving rapidly, conditions in many Sub-Saharan African countries are deteriorating. Life expectancy has declined by 3 years during the last decade and is expected to fall to a level of about 30 years in the countries hardest hit by AIDS within the next 5 to 10 years (United Nations 2002).

Given the disastrous health status of many of Africa's people, one could argue that the case for considering the economic impacts of illness is misguided and that the moral case for protecting millions of people against early disability or death is the most powerful argument for government investment in health care. While an enlightened government with sufficient resources would no doubt make health a priority concern, most African governments have limited resources to devote to improving their populations' health. Moreover, some have pursued unenlightened strategies, whereby the wealth of those in power has taken precedence over the health of those they rule. International donors have encouraged still others to invest primarily in infrastructure, education, and advanced technology at the expense of health based on the perceived economic benefits of roads, schools, and industrial machinery.

Those advocating for increased investment in education have had a notable influence. Access to primary education has risen dramatically and secondary schooling is also spreading.[4] By contrast, those making the case for investment in health have had less success. Some key health indicators, such as immunization rates and infant, child, and maternal mortality, have improved to varying extents, but the overall picture remains bleak and Africa's health systems have proved ill-equipped to cope with such new threats as HIV/AIDS. New tools are needed to persuade those controlling countries' finances of the importance of health. Finance ministers,

[4] However, the quality of education, which is always hard to assess, is another matter. Low-quality outcomes would put such successes in a less favorable light.

even when they are concerned mainly with their own financial gain, appear to be swayed more by arguments showing that an action will provide economic benefits than by the moral case for action.

In the past few years, African leaders have begun to recognize the importance of health for economic development. A declaration by the New Partnership for Africa's Development (2001) calls for Africa's people to mobilize to build a "strong, competitive economy" in order to achieve economic growth and poverty reduction. One of its major objectives is "to empower the people of Africa to act to improve their own health," and the declaration acknowledges the role of health in promoting economic growth.

Building awareness of the importance of health to economic development is likely to fortify efforts to improve Africa's health. Persuading firms of the likely economic benefits may impel them to take their employees' health more seriously. In the case of HIV/AIDS, at least, some companies have begun to respond by taking measures to protect their employees' health.[5] Persuading international aid agencies that investment in education and infrastructure will be much more effective if targeted at healthy populations may raise the profile of health internationally, and persuading Africa's people that governments are serious about improving the region's health may help create a new, more productive relationship between citizens and their leaders.

Obstacles

Even though the New Partnership for Africa's Development (2001) promises to "encourage African countries to give higher priority to health," those seeking to improve health in the region nevertheless face a daunting task. Africa's enormous disease burden is not just attributable to weak health systems: the region's geography is also unfavorable. Life expectancy in tropical regions is significantly lower, even after controlling for income, than in nontropical zones (Bloom and Sachs 1998). Africa also

[5] Based in South Africa, AngloGold operates what it claims is "the largest private employer-funded, not for profit, in-house medical service in the world." Under the AngloGold Health Service, whose aim is to promote workplace attendance and labor productivity, a wide range of high-quality medical services is provided to all 44,000 employees and some of their dependents. As part of its program, AngloGold provides aggressive HIV prevention and AIDS care services to its employees. The provision of antiretroviral therapy for employees with AIDS is not, however, included among those services (see Kahn 2002).

hosts *Anopheles gambiae*, the most important species of malaria-carrying mosquito. This geographical disadvantage means that Africa's health systems must be better than those in other areas to achieve the same health status.

So far, however, political obstacles have hampered investment in health. Health ministers' tenure, for example, is usually fairly short, whereas investments in health generally take many years to bear fruit. Therefore actions that are highly visible in the short term often take priority over actions that are part of a coherent, long-term strategy. For instance, building hospitals may be a more immediate vote winner than an immunization campaign, whose benefits are both less obvious (the absence of an illness is not visible) and are felt only in the longer term. Thus for health ministers who want to keep their jobs, shifting their perspective from the short term to the long term may be risky.

Even where health departments do begin to think long term, they still face the difficulty of convincing presidents and finance ministers that their investments will bear fruit. Other sectors, such as education, have many more success stories to present to those holding the purse strings. The spread of primary education, for example, has contributed to growing rates of literacy in Africa, while many African health departments have little to show for their efforts but increasingly sick populations. A vicious circle is thereby created, where poor performance in the past makes obtaining resources to improve performance in the future more difficult.

A further constraint is the general lack of financial resources available to African governments. Africa is the world's poorest continent. Many of its people work in and make their purchases in the informal sector, and therefore pay no taxes. Low-income nations mobilize just 14 percent of GNP in tax revenues, compared with 31 percent in high-income countries (CMH 2001). Moreover, huge debt burdens mean that much of this limited tax revenue goes to creditors rather than to health departments. According to the CMH (2001), the poorest countries spend the least (in absolute terms) on health care, even though their populations are generally the sickest. The report estimates that countries need to spend $30 to $40 per person per year for "essential health interventions" to protect against the major communicable diseases and maternal and perinatal conditions. Currently, spending in low-income countries is $23 per person per year. In the least developed countries it is just $11. Attaining the $30 to $40 level, however,

would mean spending more than 10 percent of the least developed countries' GNP on health, which is more than they receive in taxes.

These huge resource constraints have left many African health systems in a beleaguered state, and reforming them will be a mammoth task. Their facilities and technology are out of date, their staff are unmotivated and poorly paid, and the brain drain has reduced the supply of doctors and other medical staff.

The social framework in many African countries also hinders progress on health. In many nations people do not trust their governments. Corruption, violent conflict, and a lack of democratic representation mean that societies' desires are often in direct opposition to those of their leaders. Civil society is also weak: the NGOs that are so crucial for reaching poor communities are underfunded and sometimes repressed, and curbs on press freedom hamper the media's ability to report on health crises (Bloom, Weston, and Steven 2004). Social collapse also makes establishing a reliable health system difficult: Africa witnessed 14 civil wars between 1987 and 1997, many of which spilled over into neighboring countries (UNDP 2001). As well as fragmenting society, exacerbating health problems, and making it dangerous for health professionals to operate, conflict also diverts resources away from health toward arms (Bloom, Weston, and Steven 2004).

The final major hindrance to improving health in Africa is the complexity of the issues that decisionmakers face. The question of whether to invest limited resources in preventing or treating disease, for example, has no easy answers. Similarly, choosing what proportion of a health budget to spend on medicine and what proportion on public health is not a simple task. At the same time, deciding which aspects of health care should be administered at the central government level, which should be administered locally, and which should be delegated to the private and nongovernmental sectors is a challenge that has perplexed most rich countries with far greater resources than Africa has. Clearly Africa can take some shortcuts by learning from other regions' experiences, but the wholesale importing of others' health policies is unlikely to fit the entire gamut of local conditions even if it is useful in some areas.

Opportunities

Despite the difficulties, recent global developments are promising in some respects. First, international interest in health is greater than it has ever been. Recent recognition of the links between health and wealth by the United Nations, international financial institutions, and international aid agencies means that more, albeit still insufficient, funds are now available for health in Africa. The Global Fund to Fight AIDS, Tuberculosis, and Malaria exemplifies this new commitment. More than $3 billion has so far been pledged to the fund, which aims to tackle these three diseases through public-private partnerships. To date it has awarded $2.1 billion to programs, of which 60 percent has gone to Sub-Saharan Africa.[6]

Clearly developing countries' own resources will be insufficient to provide for essential health needs. What a country considers to be essential will depend on its particular circumstances, but by protecting people against infectious diseases and nutritional deficiencies, it is possible that eight million lives per year could be saved (CMH 2001). The CMH calls on wealthy industrial countries to make up the funding gap by providing an additional $22 billion per year of development assistance for health by 2007, of which $14 billion should go to the least developed countries, the vast majority of which are in Sub-Saharan Africa.

This rise in donor funding for health would mark a significant increase compared with current levels of overall assistance, which stand at roughly $60 billion per year. However, relative to rich countries' GNP, the increase for health is small, just 0.1 percent of donor GNP. In the long term, moreover, poor countries' resource needs would diminish as they achieved higher per capita incomes that would further boost their ability to make improvements in health.

Second, we are now witnessing a crucial step in boosting the likelihood of international aid: the mobilization of support for health within countries. The rise of civil society in recent years, often supported by international donors, has given a greater voice to poor and marginalized groups and, in theory at least, has made them easier to reach with government programs. As noted earlier, business too has begun to acknowledge the importance of health for its employees and customers. These new partners could play a critical role in any successful effort to reverse Africa's health

[6] See http://www.theglobalfund.org/en/.

decline. At a highly influential global level, the World Economic Forum has focused attention on the importance of businesses becoming involved in the fight against HIV/AIDS in their own countries (Bloom and others 2004a). Recommended activities include participating in both prevention and treatment campaigns.

Third, health improvements are achievable at lower cost than in the past. Scientific advances mean that many of the infectious diseases from which Africa suffers so severely are now either treatable, preventable, or both. In addition, the globalization of communications means that knowledge can be gathered from elsewhere at minimal cost, and the increasing speed of technological and pharmaceutical development means that prices of equipment and medicine are falling more quickly.

Finally, plenty of evidence suggests that health can be a vote winner. In the Gallup International Millennium Survey of 50,000 people from around the world for the United Nations, health emerged as what matters most in life, well ahead of such economic factors as having a job and maintaining a high standard of living. Thus, concerted efforts to improve a nation's health are likely to bear fruit at the ballot box. If people also view that effort as having economic benefits, an impetus may be built around a virtuous spiral whereby health improvements trigger economic gains, which in turn lead to further progress in health.

Reversing the decline

The logical extension of arguing the economic case for investment in health is to direct resources toward actions that have large economic benefits. This is controversial, because it leaves some parts of the health sector, such as illnesses whose economic effects are slight, bereft of funds. However, it is important, particularly with limited resources, to prioritize, and triggering and publicizing the economic gains that health interventions promote may create a vital momentum among key stakeholders, including businesses, government ministries, and the many NGOs concerned with poverty reduction.

Research identifying the economic benefits of particular health interventions is limited. Economists advising governments traditionally use rate of return analysis as a tool for ranking competing demands for resources. This technique calculates which activity has the highest

economic benefit compared with its costs and allocates resources accordingly. However, rate of return data on health interventions are not widely available, although work on HIV/AIDS in Thailand suggests that tackling lethal pandemics, while a daunting task, is likely to have huge economic benefits. Bloom and others (2004b) estimate the rate of return on Thailand's investment in AIDS prevention, when taking into account savings in medical expenditures and averted income losses, at between 37 and 55 percent. This compares with a return of 29 percent for the global guinea worm eradication program, for example, and a rate of 6 to 17 percent for the eradication of river blindness. Indeed, the World Bank considers rates of return above 10 percent to be acceptable, so action on AIDS is a highly efficient intervention.

More research on the economic benefits of health interventions is urgently needed to help health departments prioritize their activities. Rate of return analysis is not infallible and is sometimes controversial, because the total return on an investment is often difficult to measure in financial terms. Nevertheless, it is a useful indicator of the impact of an intervention. Some countries lack the capacity to carry out sophisticated rate of return analysis and may benefit from working with donors to improve their technical capacity for such research. Alternatively, as many African countries are in a similar situation, they might be able to cooperate in carrying out such research.

Complicating such analysis is the problem that investments in health (other than in an AIDS crisis type of situation) can generally be expected to yield large economic returns only when they are accompanied by sound macroeconomic policies, a well-functioning government, and other measures geared toward paving the way for economic growth. Health investments are not an economic panacea.

African governments will need a massive injection of funds from donors to help them tackle their health problems. Undoubtedly industrial countries could invest more money in the world's health and they themselves would probably benefit from doing so; however, their governments would likely be better able to persuade their citizens of the merits of such investment if the perception was that funds would be deployed effectively. Donors are increasingly demanding evidence that their investments will be used well, and a call for more funding will continue to fall on deaf ears if funds are squandered.

The economic results of health interventions may serve as an important means of buttressing the case for such investments in Africa. The principal concern of 21st century donors is poverty reduction. Donors need to be persuaded that by dramatically reducing poverty, investing in Africa's health will save them money in the long term. A pan-African research body could take some responsibility for arguing this case and disseminating news of successful African health interventions to skeptical donors.

Even without a huge increase in funds, however, African governments can do a great deal with existing resources. Governments as a whole—not just health departments or finance ministers—might benefit by reassessing their allocation of resources. As noted earlier, to date the economic benefits of health care have been given less weight than those of education, infrastructure, or technology. A new drive for improved health, centered on its economic effects, would have several effects. First, it would make the rest of government more aware of the importance of health to a country's development, and therefore make it more likely that health ministries could obtain more funds. Second, it would help maximize government resources by emphasizing the importance of coordination; for instance, agriculture ministries could take the effects of their work on nutrition and health into account and work with health ministries to ensure that their policies are complementary rather than duplicative or contradictory. Finally, such a drive would help to guard against unintended consequences; for example, infrastructure departments investing in new roads should be made aware of the risk that such projects can increase the prevalence of HIV/AIDS, because transport routes are significant conduits for the virus and large building projects can attract sex workers to cater to the workers' needs (Bloom and others 2004b). Once aware of this risk, they can guard against it by educating workers about the dangers of HIV/AIDS and by making condoms available.

Health ministries also need to ensure the cost-effective use of their time and finances. They can consider delegating responsibility to actors from outside government in cases where private provision of care will work well and where it is consistent with achieving equity in access to health care. Nevertheless, in many situations, governments will clearly be the only possible provider for the poor.

In general, government investments in health are most appropriate when the net social benefits from the investments are positive and

compare favorably with alternative uses of the funds, and when individuals and private providers do not have sufficient incentives or abilities to undertake the socially desirable level of investment themselves. With regard to the first point, recent research provides a powerful and compelling body of evidence of positive social benefits resulting from investments in health with rates of return that compare favorably with estimated rates of return to education and with the World Bank's acceptable threshold of 10 percent. Concerning the second point, private actors will not address equity or health care issues in rural areas (which account for 66 percent of Sub-Saharan Africa's population), nor can private actors deal with the market failures and negative community spillovers associated with infectious diseases. Finally, private actors need a rational and consistent governance framework within which to operate, and that is also lacking.

In a world undergoing an explosion in new knowledge and health technology, losing sight of the basics is easy. Building expensive tertiary care medical facilities has often taken precedence over protecting children against fatal diseases or tackling the HIV/AIDS pandemic via prevention messages. Many countries ignored the spread of HIV/AIDS until it was much too late for millions of Africans,[7] and longstanding diseases such as malaria and tuberculosis have had an untroubled existence in Africa, even while the rest of the world has been wiping them out.

Governments can maximize their resources in a cost-effective way by acting as conveners. Mobilizing all available resources is critical. Businesses, civil society, and local communities can all be engaged in improving the continent's health. Governments have a powerful influence with all these stakeholder groups and are well placed to bring them together to work out strategies and share good practices. Bringing all stakeholders on board is especially important for communicating a long-term vision for health. If a government undertakes activities that focus on the poor, it will need to answer difficult questions from better-off citizens concerned about their own economic and health status.

[7] This problem is not confined to Africa, nor to HIV/AIDS. The spread of the SARS virus exposed major flaws in China's health surveillance system and its poor integration with the global public health system. Such flaws are likely to have serious, long-term, adverse consequences for the country, as the virus spread further than it would have done had the problem been acknowledged early on and addressed appropriately. China's international reputation also suffered. Africa's governments can learn from others' mistakes.

Conclusion

Improving health in Africa is a daunting task and progress will likely be slow. The urgent need to improve populations' health calls for determined, concerted action on the part of governments, private health care providers, and NGOs. Four considerations can guide governments and health ministries as they strive to reorient spending and catalyze more effective and efficient delivery of health care services.

First, all actors must explicitly recognize the moral, ethical, and humanitarian motives that should underlie any effort to improve health. The deterioration of health in Africa, starting from what was already a perilous situation, requires that governments use all tools at their disposal to reinvigorate health systems, and both local populations and international agencies can be enlisted in this effort. Governments should not shrink from such a task. The fundamental underlying motive—rescuing extremely vulnerable societies from further debilitation—provides a substantial ideological umbrella under which they can take action.

Second, social equity demands that a higher share of health resources be devoted to the poor. Of course, in countries where the vast majority of the population is poor, difficult struggles over resource allocation will be inevitable, and targeting only the poorest would not be just. An essential element of the solution to this dilemma will involve aid from the industrial countries and from international organizations. Health ministers, and governments as a whole, must hone their arguments, in part by showing that they can make good use of whatever resources they can marshal.

Third, health ministers can capitalize on the political advantages that will accrue to them by pursuing programs that have popular support. Genuine improvements in health facilities and health status, along with credible evidence that such improvements will continue, could engender significant popularity for governments. Moreover, success in this field, even if modest, may serve as a society-wide springboard for holding other ministries accountable for similar advances. If other ministries can successfully respond to such pressures, all can benefit. This could boost government stability, a clearly desirable outcome.

Fourth, health ministers have a new arrow in their quiver: the argument that focusing on health can spur economic growth and help alleviate poverty. This argument does not replace the moral and humanitarian

arguments, but it allows advocates of increased spending on, and attention to, health to credibly link progress in this sphere to goals that are even more broadly shared and sought. One of the most acute problems that has arisen as countries liberalize and integrate their economies into the world economy has been the negative effects on the social sector, including health. By focusing on health as an instrument of economic growth and poverty reduction, countries can take action to prevent some of the negative consequences of global integration.

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