Improving Health, Nutrition, and Population Outcomes in Sub-Saharan Africa

The Role of the World Bank
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The Role of the World Bank
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THIS REPORT AIMS TO SET A NEW STRATEGIC DIRECTION FOR THE World Bank’s work in health in Africa. It is now more than 10 years since we issued the “Better Health in Africa” report, and much has changed in Africa, not always for the better. Some of that report’s findings and recommendations still hold, as do some from the World Development Report 1993: Investing in Health (World Bank 1993b), but most have yielded to the new health realities of Africa, including the devastating AIDS epidemic.

Many of our African client countries are searching for the right strategic answers to address their long-term health challenges and are requesting the Bank’s support in those efforts. While this report provides a comprehensive overview and analysis of the challenges, it sometimes raises more questions than it answers by presenting a range of strategic options that will need to be tailored to the circumstances of each country or region. The report is intended to assist in setting a strategic agenda for finding the right answers through country-level analytical work and evaluation of global and regional experiences. It summarizes and consolidates a multiyear effort begun in 2002 by the Africa Region’s Health, Nutrition, and Population Family (World Bank 2002f) to strengthen the knowledge base and consensus on critical challenges in health development in Africa and to focus lending and analytical work around critical strategic challenges where the Bank has a comparative advantage. It also seeks to encourage efforts to organize operations and staff to more efficiently and effectively support client countries and to complement efforts by other organizations to improve health outcomes among the poor in Africa.

With the Bank’s commitment to the Millennium Development Goals, the impact of our work is also measured in terms of life expectancy, child and maternal mortality, malnutrition, access to reproductive health care, and reduction in the spread of HIV. This has implications for both Poverty Reduction Strategies and Country Assistance Strategies.

Although notable successes have been realized in some areas and some countries, progress in health outcomes in Africa overall is not
making the gains needed to achieve economic growth and reduce poverty: in absolute numbers, household poverty has almost doubled over the last 20 years; illness, malnutrition, high fertility, and premature death have become increasingly important and central determinants of poverty; infant mortality remains the highest in the world; under-five mortality has worsened in a quarter of African countries; nutritional status has not improved over the past two decades; and the majority of African countries still have high fertility and population growth rates. An overarching challenge is AIDS, which affects Africa more than any other region and is demonstrating how disease can dramatically undermine macroeconomic outcomes in addition to having devastating human costs.

At the same time, there is a divergence between the health, nutrition, and population (HNP)\(^1\) strategic priorities of the least developed countries of the world (most of the countries in the Africa Region, plus some 20 outside Africa\(^2\)) and the issues receiving attention from international development institutions. The systemic, financial, and behavioral challenges to improving health care in Sub-Saharan Africa are not prominent on the agendas of academic and research institutions, and the bulk of the work on health systems over the past decade has focused on high- and middle-income countries. Recently, international attention to communicable diseases, specifically AIDS, tuberculosis, and malaria, has surged. Nutrition and population issues in Africa deserve similar attention, because poor nutritional status and high rates of fertility contribute to deaths from communicable disease, impede higher educational attainment, and reduce economic growth.

The overall goal of the health group in the Bank’s Africa Region is to help client countries to achieve sustainable improvements in their health outcomes, particularly for the poor. This report, prepared by a large cross-section of the health staff of the World Bank’s Africa Region, recognizes that macroeconomic development and progress in health are linked, and that having a sustainable impact on communicable disease, nutrition, and population objectives requires sound human and institutional capacity in Africa’s health sector. World Bank interventions should therefore aim to strengthen the economic, institutional, and human capacity of client countries to identify and prioritize their health concerns, design locally appropriate policies that build on global and regional knowledge and experience, mobilize domestic resources and international development assistance, implement effective economic and
health reform strategies, and monitor and evaluate the impact of those strategies on health outcomes among the poor.

Three areas are identified as strategic priorities for Bank interventions: integration of macroeconomic policies and health policies; multisector policies and actions outside the health sector that have major health effects (female literacy, water, electricity); and health system strengthening, including equitable and sustainable health financing, health economics, and health insurance modalities. Three mechanisms for intervention are also highlighted: resource transfer, knowledge transfer and policy advice, and monitoring and evaluation. Resource transfer, primarily health investment operations, already receives the most attention. This report proposes ways to better position the health staff in Africa to support knowledge transfer through lending and nonlending tasks and by strengthening partnerships to ensure complementary activities.

Poverty Reduction Strategies, the Highly Indebted Poor Countries (HIPC) Initiative, the Comprehensive Development Framework, and a greater appreciation for regional approaches and regional collaboration are all changing the environment in which development interventions are occurring. This new environment provides unique opportunities to address longstanding constraints on health objectives, but it also challenges us to ensure that the health sector contributes to poverty reduction through these new approaches.

The report is not intended to be the Health, Nutrition, and Population Strategy for Africa. Health sector strategies need to focus on the country level, and while Bank-defined strategies may influence and guide staff, partners, and client countries, they do not directly translate into operations on the ground. Thus the report offers a range of strategic options for clients, improves the quality of knowledge and advice to clients, and strengthens the ability of Bank staff to respond to the specific needs of each client country in the Africa Region.

The Africa Region has initiated separate working groups for several critical areas identified in the report:

- Health economics and financing
- The public-private mix and partnerships
- The health workforce crises
- Pharmaceutical challenges
- Malnutrition risks
- Population and reproductive health perspectives
Each group is headed by senior Africa Region HNP staff and addresses such issues as health insurance and community financing, contracting out, decentralizing and privatizing through partnerships, the crisis in health personnel, high fertility and low contraceptive prevalence, the challenges of providing the right drugs at the right time and place, and how to reverse the trends of stunting. Working groups are also being established for macroeconomics and health and for multisector approaches.

While these areas reflect the core of the strategic work program, they are flanked by two equally important undertakings that will help to illuminate the key health challenges in Africa. One is the comprehensive analysis of death and disease problems across Africa, under the Disease and Mortality in Sub-Saharan Africa (DMSSA) project. The last similar overview was performed almost 15 years ago. The DMSSA will be the first comprehensive treatise on death and disease in Africa since the onset of HIV/AIDS changed the continent’s epidemiology. The work is being carried out mostly by African scientists, and the results are expected to be published next year. This work should provide a solid evidence base to guide the efforts of African countries, the Bank, and others.

The second is the Bank’s Africa Region’s Country Status Reports (CSRs), which have been expanded to include HNP issues. Health CSRs, guided and informed by DMSSA evidence and the “strategic options” products of the working groups, are essential tools for translating regional findings and options to the country level and subsequent lending operations.

This report also identifies strategic areas in which we need to acquire new skills and expertise and considers how most effectively to employ new instruments and staff. As such, this work is intended to guide Bank sector managers and country directors in the deployment of HNP staff in Africa and to inform the relationship between the Bank-wide Human Development Network and the Africa Region.

Much of the Africa HNP strategic options work program (2002–2007) is carried out thanks to the generous financial support of the Netherlands Government under the Bank-Netherlands Partnership Program (BNPP), complemented by Bank budgets for the Africa Region. While all tasks are managed by senior World Bank health staff, this report highlights the importance of engaging both African national partners and international partners in this effort. The report is quite clear on the importance of limiting the Bank’s role to health sector reform areas in which the Bank has
a comparative advantage. Where it does not, its international and national partners (particularly the World Health Organization, the United Nations Children’s Fund, the Global Fund to Fight AIDS, Tuberculosis and Malaria, African universities and health research institutes, and the private sector) are critical to a comprehensive and consistent effort to assist African client countries in developing strategies to improve the health outcomes of the poor.

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Africa Region
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Abbreviations and Acronyms

AAI  Uganda’s Accelerating Access Initiative
ACT  Artemisinin-Based Combination Treatment
ADDO  Accredited Drug Dispensing Outlet
APL  Adaptable Program Loan/Credit
APOCH  African Programme for Onchocerciasis Control
ARI  Acute Respiratory Infection
ARV  Anti-Retroviral
AU  African Union
BCC  Behavior Change Communication
CBO  Community-Based Organization
CDC  U.S. Centers for Disease Control and Prevention
CDD  Community Driven Development
CESAG  Centre Africain d’Etudes Superieures en Gestion
CHAM  Christian Health Association of Malawi
CMH  Commission on Macroeconomics and Health
CMS  Central Medical Stores
CPIA  Country Policy and Institutional Assessment
CPR  Contraceptive Prevalence Rate
DAH  Development Assistance for Health
DALE  Disability-Adjusted Life Expectancy
DALY  Disability-Adjusted Life Year
DDT  Dichlor-diphenyl-dichloroethane
DEC  Development Economics Vice Presidency
DHS  Demographic and Health Survey
DOTS  Direct Observed Treatment Short course
DPO  Drug Procurement Office
DRA  Drug Regulatory Authority
ECA  UN Economic Commission for Africa
ECD  Early Child Development
ECOWAS  Economic Community of West African States
EPI  Expanded Programme on Immunization
FAO  Food and Agriculture Organization of the United States
FRESH  Focusing Resources on Effective School Health
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<tr>
<td>GAIN</td>
<td>Global Alliance for Improved Nutrition</td>
</tr>
<tr>
<td>GAVI</td>
<td>Global Alliance for Vaccines and Immunization</td>
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<tr>
<td>GDP</td>
<td>Gross Domestic Product</td>
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<tr>
<td>GFATM</td>
<td>Global Fund to Fight AIDS, Tuberculosis and Malaria</td>
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<tr>
<td>GMP</td>
<td>Good Manufacturing Practices</td>
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<tr>
<td>GNPH</td>
<td>Gross National Product</td>
</tr>
<tr>
<td>GTZ</td>
<td>Deutsche Gesellschaft für Technische Zusammenarbeit</td>
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<td>HIPC</td>
<td>Heavily Indebted Poor Countries Initiative</td>
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<td>HNP</td>
<td>Health, Nutrition and Population</td>
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<tr>
<td>ICB</td>
<td>International Competitive Bidding</td>
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<td>ICR</td>
<td>Implementation Completion Report</td>
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<td>IDRC</td>
<td>Canadian International Development Research Center</td>
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<td>IFC</td>
<td>International Finance Corporation</td>
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<td>IMCI</td>
<td>Integrated Management of Childhood Illness</td>
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<td>IMF</td>
<td>International Monetary Fund</td>
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<td>IMR</td>
<td>Infant Mortality Rate</td>
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<td>IPC</td>
<td>Interagency Pharmaceutical Coordination Group</td>
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<tr>
<td>IRD</td>
<td>Institut de Recherche Pour Le Développement</td>
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<td>ITN</td>
<td>Insecticide Treated Net</td>
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<td>JLI</td>
<td>Joint Learning Initiative</td>
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<td>MAP</td>
<td>Multi-Country HIV/AIDS Project</td>
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<td>MDGs</td>
<td>Millennium Development Goals</td>
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<td>MICS</td>
<td>Multiple Indicator Cluster Survey</td>
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<td>MOH</td>
<td>Ministry of Health</td>
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<td>MTEF</td>
<td>Medium-Term Expenditure Framework</td>
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<td>NEPAD</td>
<td>New Partnership for Africa’s Development</td>
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<td>NGO</td>
<td>Nongovernmental Organization</td>
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<td>NHA</td>
<td>National Health Account</td>
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<td>NHIF</td>
<td>National Health Insurance Fund in Tanzania</td>
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<td>OAU</td>
<td>Organization of African Unity</td>
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<tr>
<td>OECD</td>
<td>Organisation for Economic Co-operation and Development</td>
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<td>OED</td>
<td>Operations Evaluation Department</td>
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<td>ORS</td>
<td>Oral Rehydration Salts</td>
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<td>ORT</td>
<td>Oral Rehydration Therapy</td>
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<tr>
<td>PER</td>
<td>Public Expenditure Review</td>
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<tr>
<td>PhRM</td>
<td>Pharmaceutical Research and Manufacturers of America</td>
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<tr>
<td>PPP</td>
<td>Public-Private Partnership</td>
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<tr>
<td>PRSC</td>
<td>Poverty Reduction Support Credit</td>
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<tr>
<td>Abbreviation</td>
<td>Full Form</td>
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<tr>
<td>PRSP</td>
<td>Poverty Reduction Strategy Paper</td>
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<td>PRS</td>
<td>Poverty Reduction Strategy</td>
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<tr>
<td>R&amp;D</td>
<td>Research and Development</td>
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<tr>
<td>RBM</td>
<td>Roll-Back-Malaria Partnership</td>
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<tr>
<td>SADC</td>
<td>Southern African Development Community</td>
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<tr>
<td>SARS</td>
<td>Severe Acute Respiratory Syndrome</td>
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<tr>
<td>SEAM</td>
<td>Strategies for Enhancing Access to Medicines</td>
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<tr>
<td>SSA</td>
<td>Sub-Saharan Africa</td>
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<tr>
<td>SSATP</td>
<td>Sub-Saharan Africa Transport Policy program</td>
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<tr>
<td>STD</td>
<td>Sexually Transmitted Disease</td>
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<tr>
<td>STI</td>
<td>Sexually Transmitted Infection</td>
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<tr>
<td>SWAp</td>
<td>Sector-Wide Approach</td>
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<tr>
<td>TA</td>
<td>Technical Assistance</td>
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<tr>
<td>TB</td>
<td>Tuberculosis</td>
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<tr>
<td>TBA</td>
<td>Traditional Birth Attendant</td>
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<tr>
<td>TDR</td>
<td>Special Program for Research and Training in Tropical Disease</td>
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<tr>
<td>TFDA</td>
<td>Tanzanian Food and Drugs Authority</td>
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<tr>
<td>TFR</td>
<td>Total Fertility Rate</td>
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<td>UN</td>
<td>United Nations</td>
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<td>UNAIDS</td>
<td>Joint United Nations Programme on HIV/AIDS</td>
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<td>UNDP</td>
<td>United Nations Development Program</td>
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<tr>
<td>UNESCO</td>
<td>United Nations Educational, Scientific and Cultural Organization</td>
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<tr>
<td>UNFPA</td>
<td>United Nations Population Fund</td>
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<tr>
<td>UNICEF</td>
<td>United Nations Children’s Fund</td>
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<tr>
<td>USAID</td>
<td>United States Agency for International Development</td>
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<td>WARDA</td>
<td>West African Rice Development Association</td>
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<td>WBI</td>
<td>World Bank Institute</td>
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<td>WDR</td>
<td>World Development Report</td>
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<td>WFP</td>
<td>World Food Program</td>
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<td>WHO</td>
<td>World Health Organization</td>
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<td>WTO</td>
<td>World Trade Organization</td>
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<tr>
<td>ZEDAP</td>
<td>Zimbabwe Essential Drugs Action Programme</td>
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Executive Summary

Health improvements have come about more slowly in Africa than in other regions of the world, and some African countries are even experiencing reversals. Where health is improving, poor people are not necessarily benefiting. While the burden of noncommunicable disease is growing, communicable diseases remain the greatest burden among poor people. The number of malnourished children is rising, and population growth and reproductive health will be priorities for at least the next decade. Attacking those priorities will not be easy because Sub-Saharan Africa faces unique constraints on its ability to improve health outcomes for the poor, including weak institutional capacity; the heavy influence of external partners; a poor social, political, and geographic environment; and the unprecedented burden of HIV/AIDS.

Today’s realities

Many health indicators for Sub-Saharan Africa improved significantly in the latter decades of the 20th century, including life expectancy, infant and child mortality, nutrition, and (to some extent) fertility. As in other regions, this was due to the introduction of modern health care and medical science, the elimination of some diseases, and broader coverage of antibiotics, salt iodization, immunization, vitamin A, and family planning. Over the past 10 to 15 years, however, many of these positive trends have slowed or even reversed. Life expectancy declined in the 1990s, falling in countries such as Zambia and Zimbabwe to below 1950 levels. African Development Indicators 2003 (World Bank 2003a) shows that under-five mortality rates are worsening in 18 of the 38 countries where data are available, in stark contrast to the marked improvements made by countries in South Asia that had under-five mortality rates comparable to Sub-Saharan Africa only 30 years ago. Failing health systems contribute as much to these alarming statistics as do HIV/AIDS, malaria, and other communicable diseases.

AIDS has devastated many African economies. Estimates suggest that annual per capita growth has come down by 0.5 to 1.2 percentage points in
half of Sub-Saharan countries. Those hardest hit could lose as much as 8 percent of per capita gross domestic product (GDP) by 2010, and as much as 20 percent by 2020. Public health spending on AIDS alone exceeded 2 percent of GDP in 1997 in 7 of 16 African countries, where health expenditures from public and private sources on all diseases accounted for 3 to 5 percent of GDP. Zambia lost 1,300 teachers to HIV/AIDS in 1998—about two-thirds of the number of teachers trained each year.

The significantly lower health gains in Africa over the last 10 to 15 years seem to also be due to a very low level of progress among the poor. Poorer socioeconomic groups appear to suffer more in many Sub-Saharan countries, systematically exhibiting higher infant and child mortality, higher malnutrition, and higher fertility than richer groups. Their coverage by health activities is also systematically low: they are less likely to be immunized, they use fewer antenatal and delivery services, and their children are less likely to use services when ill. Evidence also suggests that the poorer groups have benefited less from any gains. In Uganda, for example, under-three mortality fell by only 3 percentage points for the poorest quintile, but fell by almost 50 percentage points for the richest quintile between 1988 and 2000. Such findings suggest that formulating national health strategies on the basis of aggregate mortality will not improve health, nutrition, and population outcomes for the poor.

Africa is not one place, and there are exceptions to every generalization, but relative to other regions Africa faces specific challenges in improving the state of health, nutrition, and population among the poor:

- Geography, environment, culture, and conflict have distinctive effects on the prevalence of disease and on the supply of and demand for health services.
- Institutional capacity in Africa is limited.
- Donors influence the health sector in Africa more than they do in any other region.
- AIDS puts an insupportable burden on health systems, in ways both quantitatively and qualitatively different from those evident in other regions.

While all other regions in the world are expecting better health services and outcomes over the next 20 years, Sub-Saharan Africa alone is anticipating further deterioration in its health services and a stagnation or worsening of its health outcomes, especially among the poor. The few
successes in disease control (vitamin A, river blindness, fertility reductions) or health policy (new WTO rules on pharmaceutical patents) are insufficient to meet the unique challenges facing Africa: severe institutional and human capacity constraints and adverse geographical, political, and cultural circumstances.

Health, nutrition, and population challenges in Africa have grown so quantitatively different from other regions that they have become qualitatively different as well. Many indicators relate to challenges outside of the health sector, such as availability of clean water, education for women, and access to food and markets. The following sections address what the World Bank’s response should be to this situation and where the Bank might have a comparative advantage in responding to the health, nutrition, and population crisis in Africa.

Why and how the World Bank should be involved

The Bank cannot address all determinants of better health outcomes, and so should focus on its areas of comparative advantage over the many other development assistance agencies working in the region. Client countries, development partners, and staff suggest that the Bank should use its capacity to advocate and to influence policymakers, and that it should continue to transfer resources to support investments in health, nutrition, and population. They also indicate that it should focus its non-lending work on four broad areas: macroeconomic and fiscal policy, multisector action, health systems, and health financing.

Because poor health, malnutrition, and high fertility perpetuate poverty, and because the Millennium Development Goals (MDGs) incorporate health, nutrition, and population outcomes, the World Bank has to be involved in improving health, nutrition, and population outcomes among the poor. However, outcomes are determined by many factors, and they interact in ways not yet well understood. There are no simple solutions to improving outcomes or to organizing and financing health systems to best contribute to those improvements. The World Bank can help client countries find locally appropriate solutions that build upon global knowledge and experience.

The Bank needs to make strategic choices in determining where to focus its limited staff and operating budget in addressing the many deter-
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ominants of health, population, and nutrition outcomes. Within the Bank, agreement on what the institution should not try to do regarding health, nutrition, and population in Sub-Saharan Africa is extremely difficult to attain. The immense scale and scope of the region’s needs can compel staff and management to take on a seemingly infinite list of issues: household behavior, community-based interventions, quality of care, medical education, disease control, surveillance, health information systems, and so on. But to have an impact, the Bank should resist the urge to become engaged in areas outside its comparative advantage, however compelling.

The Bank has a comparative advantage over the many development assistance agencies working in Sub-Saharan Africa’s health sector and should focus its knowledge transfer, policy advice, analysis, appraisal, monitoring, and evaluation on four areas:

- Influencing macroeconomic and fiscal policy as it relates to health, nutrition, and population (chapter 3)
- Ensuring that policies and investments outside of the health sector have a positive impact upon health outcomes (chapter 4)
- Helping client countries to develop effective service delivery systems (chapter 5)
- Ensuring that resources are effectively mobilized and employed in ways that achieve the greatest impact and protect households from impoverishment due to illness (chapter 6)

**Improving health, nutrition, and population outcomes through economic and fiscal policy**

Clear opportunities exist to improve health, nutrition, and population outcomes among the poor through fiscal and economic policy. Taking advantage of these opportunities at the country level will require a sustained dialogue within and among the relevant government, ministries, and agencies, as well as between the government and its international development partners. Improved operational and policy dialogue at the country level and stronger linkages between the social sectors and the central ministries (finance, economics, planning, local government, treasury) can change the functioning of the health sector. To ensure added value for client countries, the dialogue must be rooted in solid sector knowledge and understanding.
The share of public spending allocated to health and the way poverty reduction strategies address health, nutrition, and population suggest that decisionmakers do not appreciate that better health and nutrition and lower fertility can reduce poverty.

The health sector would benefit from working more closely with the central ministries on decentralization, civil service reform, taxation, and financial management. Sector-specific knowledge and policy advice will be required to develop policy frameworks, inform agendas for reform, and monitor implementation to ensure that economic and fiscal policy, public sector reform, and civil service reform have an impact on achievement of the MDGs.

**Increased spending or economic growth alone will not improve health outcomes**

Without better policies, resource allocation, and implementation, increased health expenditures will not improve health outcomes for the poor, and debt relief will not reduce poverty. In Sub-Saharan Africa, as in the rest of the world, health outcomes are related to income and to spending, but the relationship is far from linear. Ghana has been producing significantly better outcomes than Côte d’Ivoire despite its lower income, and Madagascar better than Malawi. These examples highlight the tenuous link between inputs and outcomes. In the poorly performing countries, there is substantial risk that any additional resources—such as the Heavily Indebted Poor Countries (HIPC) Initiative—would produce inadequate results if they were simply poured into health and education systems as these currently operate. Improving health outcomes among the poor will require significant improvements in allocative and technical efficiency, as well as more effective targeting of services. Policy reforms and strategies for resolving constraints to effective service delivery are required if expenditures are to be converted to outcomes.

**Better intrasector allocations can improve the impact of public expenditure**

Each country will require individual support to get the most from new resources and new development approaches. No formulas or simple ratios (salary/non-salary, primary/tertiary, recurrent/investment) will allow the IMF or macroeconomists in the Bank to assess whether health
expenditures are allocated and disbursed in a manner that will best reduce morbidity and mortality—or whether such intrasector allocations are pro-poor. Moreover, reallocating expenditures within the sector is not a simple budget exercise.

Conditions or triggers on allocations of public expenditure—as incorporated in many Bank structural adjustment and investment loans and more recently in adaptable program loans—can have the wrong effect. Why? Because of weak budget and accounting systems, a lack of knowledge about public expenditures, and poor appreciation of the real constraints facing many African governments. A budget overrun by the tertiary hospital, a nurses’ strike, or a civil service’s decision to raise salaries must be financed—there is little political choice, even if that means reallocating resources previously set aside to procure drugs or maintain facilities as agreed.

A large proportion of public expenditure on health, sometimes as much as 60 percent, is still allocated to the national teaching hospital in the capital city, which tends to serve the rich disproportionately and to provide less cost-effective services. Reallocation of resources away from tertiary care toward primary care has been a common ambition, but it is not straightforward and generally will not occur unless alternative sources of financing are found. Tertiary care facilities are always protected politically; reducing their budgets in order to increase those of primary facilities can result in shortages that are very visible because of the facilities’ location in the capital city, and reducing their size or level of operations is an unlikely option.

Only in the most unlikely circumstances is it politically and socially feasible to close or downsize national referral hospitals or other prominent hospitals or medical institutes (whether in Accra, Dakar, Nairobi, Washington, or Sydney). The unit costs of hospital services are greater than those of primary services. Many hospitals serve as teaching centers or national laboratories, and some deliver primary care (albeit often not efficiently) to local populations. Conditions and triggers may be helpful in holding governments accountable to commitments, but specific experience and knowledge of the situation are required in the design of such conditions to ensure that they have impact.

Health strategies that will reduce poverty must be distinguished from those that respond to the needs of the poor(est); these are overlapping, but different, objectives. Most Poverty Reduction Strategy Papers
(PRSPs) promote the former at best. PRSP drafts so far show little focus on either targeted or focused pro-poor services, posing the risk that debt relief will support expenditure patterns that will not benefit the poor. Improving health outcomes in Sub-Saharan Africa will require the development and support of targeted social sector policies to accompany growth in income.

Progress toward the MDGs could be achieved either through a pattern that primarily benefits the better-off while largely bypassing the poor, or through strategies that focus on gains by the poor, reducing poor-rich differences. There is thus a strong case for modifying the way health and poverty goals are defined in order to focus policies, strategies, and investments on resolving conditions prevalent among the poor. If countries are encouraged to stratify measurements by income and residence, this could help refocus the attention of health and development planners on the needs of the disadvantaged.

**The need for health sector expertise**

Taking full advantage of opportunities to support national health objectives through macroeconomic instruments and dialogue requires a solid understanding of the health sector—its performance, sources of inefficiencies and inequities, and options for improvement. That understanding, to be shared by the World Bank, the International Monetary Fund (IMF), and the government, should extend beyond simply looking at aggregate spending on health. Constructive health sector analysis includes examining how resources are actually used and managed, as well as what is achieved. As a critical first step, analytical work—including public (and private) sector expenditure reviews and benefit-incidence analysis—is necessary to guide investment in health by government and its partners. To ensure success, Bank staff will need to monitor whether increasing resources through debt relief and adjustment lending (in particular, Poverty Reduction Support Credits [PRSCs]) is improving health, nutrition, and population outcomes and contributing to achievement of the MDGs.

Health sector expertise is required to ensure that economic and fiscal policy and governmentwide reforms contribute to efforts to improve health outcomes. The role of the World Bank in health, nutrition, and population cannot be reduced to resource transfers such as PRSCs alone.
Policy advice, knowledge transfer, and monitoring remain critical and require sector expertise. Early experience with debt relief under the HIPC Initiative shows that government decisions may not always respond to the conclusions of sector analysis or reflect stated commitments to reduce poverty. Several HIPC countries have used the initial proceeds of debt relief to invest in hospitals or high-tech treatment for higher-income groups. In 2000 Mauritania invested most of its additional allocation in equipment for its tertiary hospital. Senegal allocated HIPC funds to build a secondary hospital, although the Ministry of Health had proposed allocating the funds to meet the recurrent costs required to enable the existing primary-level infrastructure to deliver services.

Coordinating sudden or large increases in resources with the expansion of capacity is delicate. Health specialists can work with the Bank’s country economists to ensure that programs anticipate and deal adequately with such problems. While some of the resources should be used to build public sector capacity over the long term, effective management of the influx of resources will require improving short-term capacity as well. In many cases, health specialists can work with the ministry of health to outsource central government responsibilities to a variety of local government or nongovernment parties, including private sector institutions and contractors. Such approaches are becoming more accepted in Sub-Saharan Africa.

Even if strategies and expenditure programs build on global knowledge and experience and appear to maximize both public and private sector capacity to improve health outcomes among the poor, implementation will have to be closely monitored. Experience with sectorwide health programs has demonstrated the importance of monitoring activities, processes, expenditures, and impacts to ensure accountability for stated aims. In many cases, monitoring by the government, working with World Bank health specialists and other partners, can ensure that obstacles are readily addressed and facilitate dialogue with external financiers when unintended results call for revisions in strategy.

Early PRSP lessons have highlighted areas that would benefit from greater coordination between the IMF and World Bank macroeconomists and World Bank and other agency health specialists:

- Allocating appropriate budgets to the health sector
- Understanding the impact of slow economic growth, political instability and cultural factors on human development indicators
Reducing disparities in the allocation of public subsidies for health care by region and income groups

Analyzing the benefit incidence of public spending on health

Addressing civil service and wage policy constraints that hold back health sector reform

Highlighting the effects of taxes, tariffs, and pricing policies on pharmaceuticals, medical equipment, and other health consumables

Reforming budgets, including decentralizing and instituting performance-based budgeting

Medium-term expenditure frameworks can help to address concerns in the distribution of funds between investment and recurrent costs and to ensure that sector specialists and macroeconomists work together. Unsustainable investment continues to be a glaring problem in much of Sub-Saharan Africa’s health sector. It has often proceeded without an appreciation of the recurrent cost implications or an appraisal of government’s ability to afford such costs in the future. Hospitals may be built without a full appreciation of the required personnel, operating, and maintenance costs. Analytical efforts often lack economic and fiscal expertise, and the ministry of health’s reassuring response that such costs will be accommodated is routinely accepted. For example, Bank-supported investment operations suggest that the responsible Bank staff (task managers/task team leaders) do not critically assess the government’s long-term financial, procedural, and human capacity to support statements of commitment to supply staff, drugs, or materials to support newly constructed health facilities.

Nor is all investment accounted for in the national development program. In many countries, the health sector receives donations or supports projects without the central ministries having oversight or even being aware of special agreements between a donor and a district, hospital, or local community. The Bank can better assist client countries to prepare pro-poor medium-term expenditure frameworks (MTEFs) based on a careful, analytical strategic planning process in which health and finance expertise work hand-in-hand.

**Multisector action to improve outcomes**

Many determinants of health outcomes lie outside the health sector. The World Bank, usually active in many sectors in a country, is considering
how to work effectively across sectors, recognizing the potential synergies of multisector action. As one of the leading health sector partners in Sub-Saharan Africa, it has a unique opportunity to foster multisector action in a way that could improve health, nutrition, and population outcomes among the poor.

**Actions across sectors can affect health, nutrition, and population outcomes**

Despite country variations, almost all government agencies have some responsibilities that have potential health consequences. Occasionally these responsibilities encompass health programs for which the ministry of health does not commonly take the lead, such as school health, water quality, food safety, or road safety. Particularly challenging for the health sector are the non-health public programs with large potential negative health consequences, such as hydroelectric water and irrigation schemes that foster the parasites responsible for a number of communicable diseases (malaria, schistosomiasis), or unexploited positive health consequences (electricity provision to rural villages increases healthy behavior). In addition to improving health, multisector cooperation can support improvements in the functioning of the health sector. In Uganda, for example, cooperation between the Ministry of Health and the Ministry of Energy determined that access to electricity would result in better water pumps, more communication through radio, more effective vaccine storage, and improved sterilization practices.

Multisector action for better health outcomes puts a premium on cooperation across ministerial departments, across professions, and across widely varied institutional cultures. Yet cooperation is frequently difficult because of differences in professional training and values, and because people working in large bureaucratic institutions tend to be responsive up and down but have few incentives to work collaboratively on a horizontal basis. The Bank and its partners need to work with African countries to overcome these barriers and to facilitate the introduction of incentives for multisector action. While there is much room for better interaction across all ministries, selectivity requires focusing on areas promising the greatest impact, including HIV/AIDS, nutrition, malaria and other vector-borne diseases, water supply and sanitation, school health, road safety, energy provision, and tobacco.

Client countries and development partners expect the Bank, as the only global multisector institution, to address health, nutrition, and pop-
ulation objectives across all the sectors of its operations. If the MDGs are to measure the success of the World Bank’s portfolio, staff have to be concerned with how the various specific investments, strategies, and actions in each sector affect the prevalence of hunger, the incidence of child deaths, the health of mothers, and the impact of disease (HIV/AIDS, malaria, water-borne illness, and others). Sector specialists in the Bank need to build on the insights and knowledge of overall inter-sector correlations—how girls’ education, electricity generation, rural electrification, water and sanitation, the construction of dams and roads, and the approaches to rice cultivation can affect morbidity and mortality.

**Environmental impact assessments can incorporate health impacts**

The environmental impact assessments required for all Bank-financed investment projects also offer opportunities to consider the potential impact on health outcomes. Some regional development banks promote health impact assessments separately from environmental assessments. For the World Bank, health specialists would need to work with other sector specialists to devise strategies for mitigating risks or fully exploiting potential benefits identified by such assessments.

Efforts have been made along these lines for HIV/AIDS; all the Bank’s projects in Sub-Saharan Africa across all sectors have been challenged to identify how they might contribute to reducing HIV/AIDS. Such an approach, applied more broadly, could greatly enhance the extent to which Bank-supported investments contribute to achievement of the MDGs in Sub-Saharan Africa. Work under way on universal access projects for the provision of rural water supply, sanitation, energy, and telecommunications—in Mauritania, for example—offers a possible entry point for multisector cooperation to assess health impacts and improve health.

**Effective systems for delivering health, nutrition, and population interventions**

Why should the World Bank focus on health systems? Because they affect health outcomes. Each specific intervention or package of interventions is of course critical to those outcomes, but they need to be well executed in a larger context to be effective. The *World Health Report*
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2000 (WHO 2000d) asserts that “the differing degrees of efficiency with which health systems organize and finance themselves, and react to the needs of their populations, explain much of the widening gap in death rates between the rich and poor, in countries and between countries, around the world” (p. xii).

Bringing global knowledge and experience to strengthening systems and institutional capacity is the World Bank’s contribution to sustainable health system development. The Bank’s focus is on building the capacity of client countries to identify and continually reevaluate priority health concerns, set national health policies, design and implement effective local strategies built on global knowledge and experience, mobilize domestic resources and foreign assistance, and monitor and evaluate the impact of policies and strategies.

The Bank needs to address the institutional and organizational frameworks, the critical human and physical inputs, the role of the private sector, and the importance of building effective demand for health services. It needs to recognize the range of actions taken by African ministries of health as they work to strengthen service delivery and to highlight challenges they face in improving the effectiveness, efficiency, and coverage of health, nutrition, and population interventions:

- Overcoming workforce-related problems
- Getting the institutional and organizational frameworks right
- Making pharmaceuticals accessible and affordable
- Strengthening the private sector
- Increasing household and community demand for effective services

The effectiveness of interventions to prevent and treat disease and malnutrition and improve reproductive health depends on mitigating or even removing systemic weaknesses more than on any other factor. The Bank has a comparative advantage in its ability to support client countries in identifying strategies that can strengthen the delivery capacity of their health systems.

**Health workforce limitations pose the greatest challenges to health care delivery**

Health workforce constraints are the single greatest challenge to improving service delivery in Sub-Saharan Africa today. Access to health
service providers is lower in Sub-Saharan Africa than in any other region of the world. The size of the workforce is affected by production, enrollment, and the rate of attrition, which is affected by migration and by AIDS. Poor deployment of staff exacerbates the problem. In Ghana, Guinea, and Senegal more than 50 percent of physicians are concentrated in the capital city, home to less than 20 percent of the population.

Countries are implementing a range of strategies to cope with the crisis. The Bank is well positioned to assist by advancing the policy dialogue, convening critical players in the health workforce policy arena, and mobilizing the resources needed to revitalize the health workforce and help develop the analytical capacity applicable to the economics of labor markets for health.

**Access to and use of pharmaceuticals must be improved**

Pharmaceuticals consume the largest share of expenditures on health services after manpower, and the share of expenditures on pharmaceuticals in Sub-Saharan Africa (20 to 50 percent of total health care expenditures) greatly exceeds the share in developed countries (where OECD countries average only 12 percent). Most countries face difficulties in ensuring that essential drugs are available and physically accessible, affordable, of high quality, and used rationally. Because foreign exchange is often required, up to 30 percent of Bank financing for health in the region supports pharmaceuticals. Bank support is required in the areas of budgeting, planning, procurement, pricing, registration, and regulation, as well as production.

**New public sector institutional frameworks and private sector partnerships are emerging**

Client countries are beginning to shift away from the direct provision of services toward a stewardship role. Combined with decentralization and calls for greater multisector action, this shift is affecting changes in the institutional and organizational frameworks of ministries of health in the region. Increasingly, client countries are seeking the Bank’s support in making hospitals autonomous, delinking medical staff from the civil service, and engaging in contracts and grant agreements with districts and with private health care providers. With these changes, new capabilities and capacities in the public sector are required, such as those related to contract management regulatory frameworks.
Household and community factors also affect system effectiveness

Lack of effective demand is one of the greatest challenges to increasing coverage with cost-effective interventions. Many Africans never encounter the formal health care system during their lives, and the failure to use essential health services suggests that general economic assumptions regarding supply and demand do not apply. People do not demand needed care because they lack knowledge of when to seek care, because they hold superstitions about the causes of disease, because they place little value on preventive services, and because they lack confidence in the system. The World Bank does not have a comparative advantage in education, training providers, or behavior-change communication strategies, but it can help client countries consider how different institutional and organizational frameworks, system capacities, and regulatory interventions—as well as financing and payment mechanisms—can foster appropriate care seeking, increase demand for services, and affect supply-side provider behavior. The Bank can also encourage clients to seek support from partners who have comparative advantage and credibility at the local and community levels in developing strategies that will affect household behavior and engage communities in improving health systems and health outcomes.

Neither the World Bank nor the global health community has simple solutions to these many challenges, but African health systems are themselves trying to identify local solutions. The World Bank and other partners can help ensure that those local solutions are informed by global and regional experiences, that they build on a solid analytical base, and that they are closely monitored and evaluated so that approaches are modified when desired outcomes are not obtained and successes are shared across the region.

Sustainable financing of health, nutrition, and population interventions

African client countries and international development partners expect the Bank to contribute global knowledge and policy advice related to financing health, nutrition, and population services, and to influence resource allocation decisions through analyses such as expenditure
reviews. The challenges are significant. Most African countries lack adequate financing for health. No global or regional consensus exists on which resource allocation and purchasing strategies best protect households from impoverishment while improving health outcomes, nor is available financing allocated efficiently, effectively, or equitably. Even so, countries in the region are moving to sectorwide approaches (SWAs), conducting health account and sector expenditure reviews, contracting with large networks of religiously affiliated providers, and forging partnerships with other countries to improve economies of scale.

**Spending on health, nutrition, and population is lower in Africa than anywhere else**

Total health expenditures in Sub-Saharan Africa (excluding South Africa) average 6.0 percent of GDP and $13 per capita per year, compared with 5.6 percent and $71 per capita per year in other developing countries, and 10.2 percent and $2,735 per capita in developed countries. Health, nutrition, and population goods and services are primarily financed by households, central government revenues, the private sector, and external development assistance (grants, loans, in-kind goods, or technical services) and channeled through the ministry of health, other ministries, local government, or formal and informal pooling mechanisms. A large share of spending is not managed by any intermediary; households spend directly in the formal private sector and the informal sector or for user fees at public sector facilities.

The HIPC Initiative could significantly increase public spending on health. In return for debt relief, it obligates beneficiary countries to adopt sound economic management and poverty reduction policies, with an emphasis on basic social services (health and education). An explicit expectation is that additional public resources will be allocated to these priority sectors. There is, however, a significant risk that additional resources may not achieve their potential under existing inefficient and inequitable budget allocations and service delivery systems. There is an additional risk, supported by early experience, that ministries of health will not be able to quickly absorb the large additional resources made available and that finance ministries will then redirect resources elsewhere. The Bank has a responsibility to propose solutions to these problems, track allocations to the sector, and assess the results of HIPC financing in the social sectors.
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A lack of financing for key recurrent costs has often undermined the aims of development assistance for health in Africa, as investments in capital or training generate recurrent cost requirements (new clinics and medical equipments will need staff, maintenance, and supplies, new or more highly trained staff must be paid, and piloted initiatives raise expectations that all will eventually benefit). The high level of investment financing supported by development assistance can generate unsustainable recurrent cost requirements. This is one of the explanations for the trend toward pooled financing and budget support under SWAs for very poor countries.

Strategies to manage financing for health, nutrition, and population services

The Bank has a critical role to play in supporting African client countries in the development of sustainable and effective health financing strategies. The evidence for which health financing strategies will best maximize efficiency and effectiveness and respond to the needs of the poor in Africa is limited. Global consensus is weak on the best health financing practices for very poor, low-capacity countries, but some lessons have been learned and consensus exists on some basic principles. Bank health staff working in Sub-Saharan Africa can bring global and regional experience to client countries and ensure that initiatives are closely monitored and evaluated to inform technical and political decisionmakers and their constituencies.

For the majority of the rural population in Africa, insurance options are simply not there. Formal and informal risk-pooling and prepayment schemes that can provide “consumption smoothing,” protecting households that encounter unexpected and insurmountable medical costs, do not exist. The absence of health insurance or other risk-pooling approaches (especially for catastrophic care) contributes to impoverishment, as poor African households have to draw down their assets, go into debt, or rely on transfers from other households to pay for costly hospitalization. The absence of insurance is the implicit rationale for highly subsidized (or fully subsidized) public hospital services.

The Bank has paid little attention to risk sharing, social insurance, and structured third-party payment mechanisms in health. Instead, it has been focusing on user fees, which have been accused of being an “illness tax” on the poor. Although the Bank has done much analysis of health
financing issues, it has given less attention to the institutional challenges of implementation, and it has generally failed to address the political and cultural dynamics that underlie inequalities in resource allocation to protect the poor.

Most African countries have some form of fee system for government facilities. Although fees are not the preferred option for sharing risk, generating revenues, improving resource allocation, or benefiting the poor, they can ensure the provision of basic health services in settings where financing is uncertain. Even at very low levels, fees (especially for drugs) can provide a scarcity signal to consumers, improving management of commodities and supplies—as with the Tanzania community health funds and the many cases under the Bamako Initiative. If fees remain where they are collected, they can also generate resources, enhance quality, improve efficiency, and empower communities.

Charging fees for health care in the region generally represents an effort to capture household health expenditures and pool them with government financing to finance publicly provided services. Fees can also be used to direct care-seeking behavior; fee structures can discourage bypassing the first level of care or promote desirable interventions with less demand, such as immunization.

Fees are not a solution to sustainable financing, because they amount to only a modest fraction of the total recurrent costs of government health services—from less than 1 percent to at most 20 percent. But they can cover a much larger portion of recurrent expenditures at the local level. In a study of primary health care centers in eight West and Central African countries, fees for the health care given to patients accounted for between 50 and 200 percent of nonsalary recurrent costs. Since the expense of operating local health centers is a small fraction of total public health spending, revenue generation may have a significant impact on these centers.

**Addressing efficiency and equity**

The allocation of public expenditures remains a powerful way to influence household behaviors and expenditures, other sources of domestic and international financing, and the actions of providers (both public and private). The World Bank is in a position to inform and influence decisions on public expenditures for health, to monitor expenditures, and to
compare the impact of different expenditure patterns. Many international partners and client countries expect the Bank to contribute from these perspectives. It is important to recognize that no consensus exists on how to identify a quality health sector expenditure program, and, as described in chapter 5, the knowledge base is still weak on how to resolve the systemic constraints on improving outcomes.

Many simple ratios have been used in health sector expenditure reviews: recurrent to investment, hardware to software, salary to non-salary, primary health care to tertiary medical care. However, such formulas are often not sufficiently informative. Budget analysis is further constrained by the effects of donor financing and nontraditional budgeting. Donor contributions—including those of many new foundations—are not tracked consistently and are often maintained off budget. That can complicate budget analysis, though most donors can provide financing information when asked. Deriving and disseminating lessons on public and private expenditures for health and employing national health accounts should be a priority for the Africa Region of the Bank.

Much of the disproportionate expenditure on the nonpoor is explained by the location of health infrastructure, particularly hospitals, which consume far more resources than lower-level facilities. Infrastructure drives costs, captures recurrent expenditures, and thus restricts how readily budgets can be reallocated to benefit the poor. Skewed expenditures are also explained by the location of staff (the highest proportion of health professionals is in urban areas), the care-seeking behavior of poorer, less educated families, and the revenue-maximizing attitudes of many medical providers.

The nonpoor would presumably benefit more from universal public financing of a package of cost-effective medical interventions. Wealthier households are often willing to purchase private health insurance (or community health funds) when the option is available. All this means that much more consideration and better analytical foundations are required to formulate solid health policy frameworks—ones that will maximize allocation efficiency and effectively target public finance to improve the health of the lowest-income quintiles.

Investment in infrastructure (capital investments) without concomitant allocation of funds for trained staff, supervision, behavior change, and drugs (recurrent expenditures) will provide tangible outputs and perhaps the illusion of achievements from a political or community perspective, but is unlikely to affect health outcomes. In fact, 30 fully supplied health facilities with trained and well-paid staff will have a greater
impact on outcomes than 300 newly constructed health centers with unmotivated staff and no drugs. This line of reasoning is extremely difficult for governments and communities to accept, and it undermines targeted investments by many external financiers.

Ensuring the financing of nonsalary recurrent expenditures is especially important because, without pharmaceuticals and medical supplies, health care is severely compromised. A large part of Bank financing has traditionally been channeled to capital investment, but the Bank has not been effective in ensuring the provision of funds for concomitant recurrent costs. Recurrent expenditures are subject to fundamentally different risks and institutional constraints than capital expenditures because they are continuous and driven by economic and demographic factors. Changes in recurrent expenditures are important indicators of the functioning of a health sector but need to be well understood. For example, a decreasing share of the recurrent budget going to salaries may actually indicate an inability to fill staff positions, rather than greater priority being given to nonsalary inputs.

The World Bank has a comparative advantage—and opportunity—to support the rational and long-term planning of clinical infrastructure and equipment. Specific investment requests can be conditioned on acceptable plans, and the appraisal of health sector investment strategies can review the rationale for new facilities—the location, population served, referral patterns, and demand, as well as the likelihood of medical and nursing staffing, pharmaceutical supply, and maintenance of new clinical infrastructure and medical equipment. Detailed geographical mapping of health facilities (private and public) justifying the construction of new health facilities and firm commitments to the provision of complementary inputs (equipment, electricity, water supply, trained personnel, and maintenance) should be preconditions to any new public sector construction. The procurement of new medical equipment should be tied to establishing or updating inventories, drafting equipment standards, and specifying requirements for long-term maintenance contracts (life-cycle contracts).

Implications for World Bank operations

The objectives of the health, nutrition, and population (HNP) staff in the World Bank’s Africa Region are to support efforts by Bank client countries to achieve sustainable improvements in health outcomes, particu-
larly for the poor, and to protect households from impoverishment due to illness. To have a sustainable impact, the institutional and human capacity in Africa’s health sector must be able to lead long-term efforts. Bank operations thus aim to:

- Strengthen the capacity of client countries to identify and set priorities for their health concerns
- Design locally appropriate policies that build on global and regional knowledge and experience
- Mobilize domestic resources and international development funding
- Implement effective strategies
- Monitor and evaluate their impact on health outcomes for the poor

**Lending operations and resource transfers**

New ways of doing business include changes in the way the Bank and others transfer resources to contribute to health outcomes in Africa. The Bank’s approach to resource transfers to Africa is shifting from free-standing projects toward programmatic lending. What the Bank finances at the country level will be a part of the overall health sector budget of that country, or even a part of its total public expenditure program. What the Bank will have to appraise, monitor, and evaluate thus expands in scope far beyond the traditional project. Because Bank financing actually supports all inputs in the sector or public expenditure program, the entire expenditure program for health becomes more important than the specific inputs against which Bank financing may be disbursed.

For the health and education sectors in Sub-Saharan Africa, the norm is quickly becoming the sectorwide approach (SWAp or sector program). This approach is consistent with the Comprehensive Development Framework and the Bank’s Africa Region’s commitment to the use of nationally developed and owned poverty reduction strategies as the framework for development assistance. Although many different perspectives exist on what constitutes a sector-wide approach, key characteristics are:

- The government is in the driver’s seat.
- Partnership between development partners and government results in a shared vision and priorities for the sector.
- A comprehensive sector development strategy reflects all development activities in order to identify gaps, overlaps or inconsistencies.
The entire sector is considered when conducting sector analysis, appraisal, monitoring, and evaluation.

- Development works toward, or from, an expenditure framework to clarify sector priorities and guide all sector financing and investment.
- Development assistance agencies partner to reduce transaction costs for government.

This approach can provide the Bank and other development partners with a mechanism for assisting African governments with their overall health development strategies in a way that builds capacity and ownership, recognizes the interactions among development initiatives, and encourages other development partners active in the health sector to work in a coordinated and complementary fashion. The sectorwide approach in Ethiopia, Ghana, Guinea, Lesotho, Mali, Mauritania, Senegal, Tanzania, Uganda, and Zambia, despite challenges inherent in transitioning to this new way of operating, has brought a much more comprehensive approach to the sector, reducing the number of fragmented donor projects, each with its own agenda, constituency, and priorities. It has improved the extent to which key systemic constraints to achieving outcomes are identified and prioritized and has sharpened the focus on national capacity and strengthened coordination among the multiple agencies concerned.

This approach will allow the Bank to focus on areas where it has a comparative advantage: macroeconomic and fiscal policy, multisector action, health systems, and health financing. However, in order to appraise and monitor operations and provide relevant knowledge and effective policy advice, Bank task teams need to be aware of the leading health concerns in the country and able to tap complementary technical knowledge and expertise (such as that on interventions). If Bank financing is to have an impact, staff must ensure that clients are continually receiving the best possible technical support and refer them to other partners as necessary.

In sectorwide approaches appraisals of comprehensive health sector development strategies replace appraisals of projects. These appraisals demand a different perspective and a broader range of skills. They are not one-time events; indeed, they may be undertaken annually during joint health sector reviews as countries update their strategies based on the previous year’s experience.

Today it is recognized that the poorest are not necessarily benefiting as much as they should from public expenditure or from public sector
services. Benefit-incidence analysis can reveal to government and its partners how much the poor now benefit from health services at different levels, provoke assessment of existing health strategies, and promote actions that will ensure that they do benefit. As described in chapter 4, analysis of behavior, accessibility, and perceptions of quality may also be required to inform and guide national health sector reform strategies so that they respond to the needs of the poor.

Lending for such programs may also suggest different norms and standards from the traditional cross-sector Bank norms in the region. For example, disbursements of financing for health sector programs may more appropriately be “back-loaded.” That is, only small outlays may be needed initially for the required “software” implementation, while large expenditures for the envisaged “hardware” come more toward the end of the reform program. Significant Bank contributions in knowledge transfer and policy dialogue are required not only in advance of implementation, during preparation, and preceding the formal Board approval, but also through the years of implementation as countries refine their health sector strategies and learn from early experiences. The Bank’s 2004 Strategic Framework for Assistance to Africa (World Bank 2004d) recognizes that staff time on health reform policy dialogue and implementation support will increase, while staff time on preparation and project management of traditional procurement and disbursement components will decline.

The Bank’s support for sector strategies should explicitly complement the technical and financial support provided by other international development partners in ways that will strengthen the country’s implementation capacity rather than undermine or overwhelm it. This suggests that separate project implementation or management units should be avoided, and common implementation procedures should be an objective. Promoting the employment of local consultants in preparation, analysis, and specific implementation tasks can help to build domestic capacity, provide opportunities that might dissuade qualified individuals from emigrating, and create links between public and private institutions.

The choice of lending instruments, drafting of legal agreements, and development of legal covenants should support streamlined implementation procedures. Because implementation strategies will be continually revised or refined on the basis of experience, lending agreements need to be flexible. Onerous legal covenants should be avoided, and disbursement schedules should be simplified. The Adaptable Program Loan/Credit
(APL) is a newer instrument intended to support long-term commitments to sector programs. Adjustment lending—as in PRSCs or Sector Adjustment Loans/Credits—is preferred if the recipient government has the systems, procedures, and track record to convince its development partners that prior review of individual expenditures is no longer required and that ex post facto accounting and auditing are reliable and effective.

The foundation for a PRSC, which can support several priority sectors, should be a compilation of multiple sector strategies and expenditure programs. This is highlighted in the World Bank’s 2004 *Assistance Strategy for Africa*, which outlines a progression from projects (weak country capacity) to sectorwide approaches (better capacity) to budget support (strong capacity). It recognizes that budget support cannot be provided in the absence of country capacity to design and implement sector programs. Disbursements through PRSCs may become the main instrument for resource transfers to the health sector at the country level, but generally the PRSC would continue to support the sectorwide program (or SWAp).

In some settings, strengthening the Bank’s presence in the sector through more targeted subsector operations may be required before engaging the country in discussions of a sectorwide approach (for example, in post-conflict situations, as in Burundi, Somalia, Sudan, and the Central African Republic). But the sector-level dialogue should continually and explicitly work toward the long-term sectorwide objective, and some basic tenets of SWAps should be retained, including donor coordination, analysis of key sector constraints, and consideration of linkages outside the sector.

**Addressing health, nutrition, and population outside the sector**

Even in countries where the Bank is absent from the health sector, it can contribute to achievement of the MDGs for health through its work in other sectors. Although all projects are assessed for their potential environmental impact, their potential to affect health is not explicitly considered. Incorporating health impact assessments into the mandated environmental assessment process, as the Asian and African Development Banks already do, could mobilize multisector action for health and strengthen the Bank’s contribution to reaching the MDGs.

Bank-supported public sector reform and civil service reform programs can address organizational frameworks, institutional capacity,
public-private partnerships, human resources, and the civil service in the health sector. Given the international demand for health workers, sector specialists should be integral members of the Bank’s team working on civil service reform programs. They should ensure, in close conjunction with IMF colleagues and their country dialogue, that evolving policies and strategies are appropriately and solidly guided by health sector needs and constraints.

**Improving health outcomes through poverty reduction strategies**

HNP staff need to increase their involvement with PRSPs, public expenditure reviews, and medium-term expenditure frameworks to ensure that the synergies among all the various policy interventions are identified and fully exploited. If HNP staff can work closely with Bank and IMF staff engaged in public sector reform and fiscal management, then analysis, policy advice, and conditions related to PRSCs and HIPC allocations are more likely to serve the health-related MDGs and strengthen access of the poor to health services.

The Bank, working with the IMF, has a unique role in the relationship between fiscal and macroeconomic policy and the health sector. Opportunities for coordinated action are exemplified in medium-term expenditure frameworks, privatization and employment policies, taxes and tariffs, financial management and information systems, and the financing of health care, nutrition services, and family planning provision.

**Strengthening the knowledge and evidence base**

Sub-Saharan health systems, and the often very poor environments they endeavor to operate in, differ significantly from those of middle- and higher-income countries. Much of the strategic work undertaken inside and outside the Bank on health system organization and finance relates to middle- and higher-income countries. Analysis and evaluation targeting Sub-Saharan Africa and other very-low-income countries are required to build the knowledge base and to guide the Bank’s health policy advice in Africa. Multicountry analysis of experience, empirical analysis appended to country operations, and sector studies related to the following issues will be priorities for the HNP staff in the Bank’s Africa Region:
EXECUTIVE SUMMARY

- Separating the public sector role of health service delivery from its responsibilities for policymaking, planning, financing, purchasing, monitoring, and regulating
- Defining sustainable financing strategies, including user fees, community-based insurance schemes, risk-pooling, national health insurance, and public expenditure
- Resolving issues of retention, deployment, and performance of the health workforce
- Strengthening the role of private health providers (regulatory frameworks, accreditation, franchising) and outsourcing to districts, missions, NGOs, and other private organizations or companies
- Improving the financing and purchasing of pharmaceuticals and medical equipment

**Monitoring and evaluation**

The development of systems to rigorously monitor and assess the impact of unproven strategies provides opportunities to build the knowledge and evidence base and to ensure that strategies are guided by experience. Some basic standards could make an immediate difference. All investment projects (even PRSCs) should include a list of key indicators with baseline data. No operation should be permitted to proceed to appraisal without baseline data or a process for collecting it. This is a fairly simple requirement that clients can outsource. The potential impact of knowing whether strategies are having the intended effect and helping governments communicate with stakeholders is immense.

Nutrition information also needs to be used in decisionmaking. In most African countries the collection, analysis, and use of nutrition indicators in particular deserve more attention at all levels to generate awareness, track the impact of poverty strategies, create demand for services at local level, and command public sector resources. Indicators in the health sector have been refined for many years, and most ministries of health know how to assess the impact of an immunization, malaria, tuberculosis, or child health program, but few African governments have considered how to measure the effects of changes in financing, institutional arrangements, public-private partnerships, or staffing on health outcomes. There is a need—not limited to Sub-Saharan Africa—to develop appropriate models for monitoring health reform.
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The importance of country-level and global partnerships

More than 250 international development assistance agencies are working in the health, nutrition, and population sectors in Africa, including NGOs, bilateral agencies, UN agencies, and three development banks. Mozambique has more than 100 development partners in its health sector, Ethiopia 85, and Senegal and Mali more than 75 each. Many of these partners provide financial resources and technical advice and push for certain policy reforms. Such assistance is increasingly being coordinated around locally designed and locally owned sector development programs.

In SWAps and PRSCs, the Bank and its staff rely much more heavily on development partners (WHO, UNICEF, bilaterals, NGOs) to provide support and pursue the biomedical, scientific, and household and community-based dimensions of the country’s health goals and objectives. Recognizing the comparative advantages of Bank partners is as important as focusing efforts and contributions around the Bank’s institutional comparative advantage.

At a minimum, Bank sector specialists in Africa should pursue partnerships with regional and national offices of the African Development Bank, the World Health Organization (WHO), the United Nations Children’s Fund (UNICEF), the United Nations Population Fund (UNFPA), the Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM), UNAIDS, and the Food and Agriculture Organization (FAO) and with bilateral agencies working in respective countries. WHO’s Regional Office for Africa is a particularly important partner for the Bank. Staff in each institution require a better understanding of the other’s expertise and modes of operating, and consistent efforts to bring the two agencies together would clearly benefit client countries. The Bank’s Africa Region affirmed its commitment to the New Partnership for Africa’s Development (NEPAD) at the African Development Bank’s Annual Meeting (May 2002) and at the 35th Session of the Conference of African Ministers of Finance, Planning and Economic Development (October 2002).

The role and function of each type of partnership need to be considered ahead of the actual contribution from the Bank’s Africa Region. Some partnerships will not involve more than the stated commitment of the Bank to a common objective, approach, or way of operating. Other partnerships will ensure that the Bank remains aware of global knowledge standards and recommendations and will allow Bank staff to
contribute the Bank’s experience, expertise, or perspective to the global knowledge base around a specific set of issues.

More demanding are partnerships in which the Bank makes an explicit commitment to contribute through its operations and nonlending activities (as with GFATM in Lesotho and Swaziland), or where the Bank’s convening power is expected to contribute to certain objectives. The Bank’s Africa Region must budget for staff time and travel and adjunct nonlending work in these partnerships (as it has done for HIV/AIDS). If it does not, the Bank will be viewed as reneging on its commitments. Finally, there are the important partnerships that focus on addressing specific diseases, such as the lymphatic filariasis and the onchocerciasis program, where the Bank acts as the trustee or coordinating agency. These partnerships can be highly productive when accompanied by significant administrative funds and explicitly embedded in the overall operational health sector involvement of the Bank at the country level. As such, they need to be considered in the context of the Bank’s Africa Region’s strategic orientation and priorities.
Today’s Realities

Health improvements have come about more slowly in Africa than in other regions of the world, and some African countries are even experiencing reversals. Where health is improving, poor people are not necessarily benefiting. While the burden of noncommunicable disease is growing, treating communicable diseases remains a priority for poor people. The number of malnourished children is rising, and population growth and reproductive health will be priorities for at least the next decade. Attacking those priorities will not be easy because Sub-Saharan Africa faces unique constraints on its ability to improve health outcomes for poor people, including weak institutional capacity, the heavy influence of external partners, a challenging social, political and geographic environment, and the unprecedented burden of HIV/AIDS.

Health, nutrition, and population outcomes are advancing too slowly to reach the Millennium Development Goals

To reach the Millennium Development Goal (MDG) of reducing infant and child mortality by two-thirds of their 1990 levels by 2015, Sub-Saharan Africa would need to reduce its average infant mortality rate to 34 deaths per 1,000 live births and its under-five mortality rate to 52. The average infant mortality rate only decreased from 116 deaths per 1,000 live births in 1980 to around 105 in 2002. At this rate Sub-Saharan Africa will not reach the target for infant mortality until at least 2144. It is the only region in the world unlikely to meet the infant mortality goal. “The projected infant mortality rate could reach half its 1993 level in the best case scenario; for all other scenarios the infant mortality rate remains at
about 60 percent of its 1993 level. These projections do not take into consideration the full impact of AIDS” (Hanmer and others 1999).

Africa has had the smallest global gains in human development indexes, and few countries are on track to attain the MDGs for infant and child mortality or for malnutrition (figure 1.1). Six of 40 countries are currently on track for halving child malnutrition by 2015, but 39 countries are seriously off track, and only 1 of those registered any improvement between 1990 and 2000. Malnutrition rates have worsened in more than 50 percent of African countries, and more than 25 percent of children show signs of chronic malnutrition in 34 of 41 countries on which data were collected.

**Health improvements occur more slowly in Sub-Saharan Africa than in other regions**

Many health indicators for Sub-Saharan Africa improved over the last 50 years, including life expectancy, infant and child mortality, nutrition, and (to some extent) fertility. As in other regions, this was due to the introduction of modern health care and medical science, the elimination of some diseases (smallpox, yaws, river blindness) and broader distribution of antibiotics, salt iodization, immunization, vitamin A, and family planning.
However, over the last 10 to 15 years many of these positive trends have slowed or even reversed in Sub-Saharan Africa. Failing health systems have contributed as much to this alarming trend as HIV/AIDS, malaria, and other communicable diseases. In 2001 communicable diseases were still the main causes of mortality, with five conditions accounting for more than half of all deaths: HIV/AIDS, lower respiratory infections, malaria, diarrheal diseases, and childhood illnesses, all preventable with low-cost interventions (box 1.1) (WHO 2002e).

Some health indicators have improved in Sub-Saharan Africa, if slowly. The average infant mortality rate has come down from 116 per 1,000 live births in 1980 to about 105 in 2002 (World Bank 2002d). However, for 19 African countries the under-five mortality rate has risen (table 1.1) By contrast, starting at nearly the same place, South Asia reduced under-five mortality much faster (figure 1.2).

Life expectancy in Sub-Saharan Africa fell between 1980 and 2000 (World Bank 2002d). Major decreases in Zambia and Zimbabwe have nearly brought these countries back to their 1960 levels of life expectancy (figure 1.3). With immunization coverage declining between 1994 and 1998, fewer than half of the region’s children are fully immunized by 24 months of age (UNICEF 2001).

**Health outcomes are even worse for the poor**

Recent work employing DHS² and MICS³ data in about 20 African countries show that the poorer socioeconomic quintiles appear to suffer more (figure 1.4). These quintiles exhibit systematically higher infant mortality rates.

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**Box 1.1 Five conditions account for more than half of all deaths**

Communicable diseases continued to be the main causes of mortality, with five conditions accounting for more than half of all deaths:

- HIV/AIDS
- Lower respiratory infections (pneumonia and tuberculosis)
- Malaria
- Diarrheal disease
- Childhood illnesses

*Source: WHO 2002b.*
and child mortality, higher malnutrition, and higher fertility than the richer groups. Their coverage by health activities is also systematically low: they are less likely to be immunized, they use fewer antenatal and delivery services, and their children are less likely to use services when ill (Gwatkin and others 2000).

The significantly lower health gains in Africa over the last 20 years seem to be largely accounted for by the very low level of progress among the poor (Delamonica 2001). The under-five mortality of the poorest income quintile in Africa is still more than 200 per 1,000, significantly higher than the level for the same quintile in South Asia, which is about 140 per 1,000. Africa’s health improvements appear to have occurred mainly among the higher income groups, with the disparity between poor and rich increasing between

Table 1.1 Under-five mortality rates worsened in many African countries, 1997–2002

<table>
<thead>
<tr>
<th>Worsening</th>
<th>Stable</th>
<th>Improving</th>
</tr>
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</table>

Note: No data or weak data for Liberia, Somalia, and Sudan.


Figure 1.2 Under-five mortality has declined more slowly in Africa than in South Asia

Figure 1.3  Life expectancy at birth declined in the 1990s

Figure 1.4  Poor and rich experience big differences in under-five mortality

Sources: UN 2003a, 2003b.

Source: Gwatkin and others 2004.
the 1980s and the 1990s. The largest gap is for child mortality, which is much less sensitive than infant mortality to biological and genetic variations.

In Uganda, under-three mortality fell by only 3 percentage points for the poorest 20 percent but by almost 50 points for the richest 20 percent between 1988 and 2000 (Gwatkin and others 2000). The rich also benefited more than the poor between 1980 and 1990 in Burkina Faso, Cameroon, Ghana, Senegal, Tanzania, and Zimbabwe. Disparities were less pronounced in Niger, Zambia, and to some extent Kenya.

A similar study of trends in under-three mortality rates in nine African countries found that the poorer quintiles experienced less progress than the richer quintiles in five of nine countries, with mortality among the poor increasing significantly in Kenya (figure 1.5). Only in Mali, Senegal, and Zimbabwe did child mortality decrease more among poorer groups than among wealthier ones. In Tanzania, the worsening in under-five mortality has been accompanied by a widening of the disparity between poorer and richer quintiles (Sahn, Younger, and Genicot 2003). These findings suggest that formulating national health strategies on the basis of aggregate mortality will not improve health, nutrition, and population outcomes for the poor.

Figure 1.5 Poor and rich experience big differences in under-three mortality

Source: Stifel, Sahn, and Younger 1999.
Communicable diseases remain the priority, especially among the poor

Over time, countries experience an epidemiological transition, a shift in patterns of causes of mortality from predominantly communicable diseases, mostly among children, toward chronic and noncommunicable diseases. Although noncommunicable diseases (including diabetes, hypertension, alcoholism, mental illness, and some cancers) are on the rise in Sub-Saharan Africa, the epidemiologic transition is not on the near horizon for most countries in the region. Communicable diseases will continue to account for the majority of deaths in Sub-Saharan Africa for at least the next 15 to 20 years. Today, the leading causes of disability-adjusted life years (DALYs) lost are respiratory infections, diarrheal diseases, malaria, tuberculosis, HIV/AIDS, and measles.⁴

Immediate causes of death are not the only concern. For example, about one-third of African children suffer from malnutrition, yet malnutrition does not appear as a major problem in many burden-of-disease studies. Many communicable diseases that are less fatal, such as schistosomiasis, leprosy, filariasis, trachoma, onchocerciasis, polio, Buruli ulcer, and hepatitis, as well as some noncommunicable chronic illnesses such as anemia, diabetes, and trauma, result in a heavy burden of disability, striking the poor in rural areas and the urban periphery. In fact, the mortality-plus-disability gap between Sub-Saharan Africa and wealthy countries of the world is even wider than the mortality gap (figure 1.6).

Figure 1.6  The mortality-plus-disability gap is even wider than the mortality gap

<table>
<thead>
<tr>
<th>Years</th>
<th>Life expectancy</th>
<th>Disability-adjusted life expectancy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>OECD countries</td>
<td>Sub-Saharan Africa</td>
</tr>
<tr>
<td>77</td>
<td>47.4</td>
<td>38.6</td>
</tr>
</tbody>
</table>

Disability-adjusted life expectancy in Sub-Saharan Africa is now below 40 years

Source: Mathers and others 2000.
African countries with low AIDS prevalence suffer from four major problems: malaria, respiratory infections, HIV/AIDS, and the childhood disease cluster (figure 1.7). For countries with high AIDS prevalence, HIV/AIDS accounts for three times the death and disease burden of any other single cause, and diarrheal disease often accounts for greater mortality than the childhood disease cluster.

**Sub-Saharan Africa bears the greatest HIV/AIDS burden**

AIDS killed 2.4 million Africans in 2002. With 3.5 million new infections, 29.4 million people were living with the disease (table 1.2). The national prevalence of HIV ranges from under 1 percent of the adult population in some West African countries to 30 percent or more in Southern Africa (UNAIDS and WHO 2002). There are signs that the incidence of HIV may be stabilizing (3.5 million new infections in 2002, down from 3.8 million in 2000 and 4.0 million in 1999), but the incidence of the disease among adults continues to rise in many countries. Where
the virus has hit hardest—in southern Africa—prevalence has not only not begun to decline, but it has risen higher than thought possible, to 38 percent in Botswana, 31 percent in Lesotho, and almost 34 percent in both Swaziland and Zimbabwe. Low prevalence rates in West Africa are expected to begin rising; for example, in Cameroon the prevalence rate among pregnant women doubled between 1998 and 2000 (UNAIDS and WHO 2002).

AIDS has reduced life expectancy in Botswana, Malawi, Zambia, and Zimbabwe to 40 years or less. Without AIDS, it is estimated that life expectancy in Sub-Saharan Africa would be 62 years, not the current 47. AIDS has also reversed past reductions in child mortality: in Zimbabwe it is estimated that 70 percent of child deaths under five now are related to AIDS (MAP Secretariat 2000).

AIDS has devastated many African economies. Estimates suggest that annual per capita growth has come down by 0.5 to 1.2 percentage points in half of the Sub-Saharan countries. Those hardest hit could lose as much as 8 percent of per capita GDP by 2010 and as much as 20 percent by 2020 (Lewis and Arndt 2000; UNDP 2002a). Public health spending on AIDS alone exceeded 2 percent of GDP in 1997 in 7 of 16 African countries, where health expenditures from public and private sources on all diseases accounted for 3 to 5 percent of GDP.

<table>
<thead>
<tr>
<th>Region</th>
<th>Adults and children living with AIDS (thousands)</th>
<th>Adults and children newly infected with HIV (thousands)</th>
<th>Adults living with AIDS (prevalence rate, %)</th>
<th>Percent of HIV-positive adults who are women (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sub-Saharan Africa</td>
<td>29,400</td>
<td>3,500</td>
<td>8.8</td>
<td>58</td>
</tr>
<tr>
<td>South and South-East Asia</td>
<td>6,000</td>
<td>700</td>
<td>0.6</td>
<td>36</td>
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<tr>
<td>Latin America</td>
<td>1,500</td>
<td>150</td>
<td>0.6</td>
<td>30</td>
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<tr>
<td>East Asia and Pacific</td>
<td>1,200</td>
<td>120</td>
<td>0.1</td>
<td>24</td>
</tr>
<tr>
<td>Eastern Europe and Central Asia</td>
<td>1,200</td>
<td>250</td>
<td>0.6</td>
<td>27</td>
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<tr>
<td>North America</td>
<td>980</td>
<td>45</td>
<td>0.6</td>
<td>20</td>
</tr>
<tr>
<td>Western Europe</td>
<td>570</td>
<td>30</td>
<td>0.3</td>
<td>25</td>
</tr>
<tr>
<td>North Africa and Middle East</td>
<td>550</td>
<td>83</td>
<td>0.3</td>
<td>55</td>
</tr>
<tr>
<td>Caribbean</td>
<td>440</td>
<td>60</td>
<td>2.4</td>
<td>50</td>
</tr>
</tbody>
</table>

Sub-Saharan Africa is the only region in the world where both the number and the proportion of malnourished children are rising

Forty-seven million African children under age five showed signs of chronic malnutrition in 2000 (Measham 2001). The proportion of underweight children was reported at 27 percent in 1990 and 29 percent in 2000 (UN ACC Sub-Committee on Nutrition 2000). Also important is the prevalence of stunting (an indicator of chronic malnutrition): half of the 25 African countries with more than one Demographic and Health Survey show a rise in the prevalence of stunting, which leaves the region poised to account for more child deaths than all the world’s other regions combined (figure 1.8).

Poor nutrition is the single biggest risk factor contributing to the global burden of disease, and malnutrition is a direct or indirect cause of 56 percent of child deaths (McGuire 1996). It increases case-fatality rates

Figure 1.8 Africa’s share of child mortality is rising

Source: Jonsson 2002.
from communicable diseases and increases the risk and rate of progression of HIV/AIDS. Many nutrition problems—from micronutrient deficiencies to chronic moderate malnutrition—remain hidden because they do not result in visible symptoms. Malnourished children are less likely to enroll in school, and those who do enroll perform less well than other children.

About 50 percent of pregnant women, 5- to 14-year-olds, and preschool-age children in Sub-Saharan Africa are anemic (partly due to iron deficiency), which makes them more susceptible to infection. Africa also has the highest global prevalence of vitamin A deficiency: more than 20 percent of all deaths among children under five could be prevented with adequate vitamin A (Schiøler 1998).

With high population growth and essentially stagnant incomes per capita, food consumption per person is falling. Growth in the volume of food imported has slowed, as has growth in domestic food production. On average, households spend 64 percent of their income on food (1991–97, excluding South Africa), with some countries spending much more (75 percent in Mali). Still, a third of African children suffer from hunger; by 2020, without concerted action, that proportion will likely reach 40 to 50 percent (Rosegrant and others 2001).

Reaching the MDG of halving the proportion of people who suffer from hunger by 2015 is not simply a matter of higher food availability; it is also a matter of good nutritional practice. Household behavior is often a more important determinant of malnutrition in children than food availability, and malnutrition will often persist even when food is available, due to inappropriate feeding practices. Appropriate breastfeeding alone has the potential to prevent up to 10 percent of deaths among children under five (Jones and others 2003). Assuring adequate and timely doses of iron, vitamin A, and other micronutrients is crucial to reducing growth retardation and ill health, and better hygienic practices in handling, storing, and disposing of water and food are essential to the nutritional well-being of the entire household.

**Population and reproductive health will remain high on Africa’s agenda for at least the next decade**

**Dependency.** In 2003, 44 percent of the population of Sub-Saharan Africa was below the age of 15 years, the world’s youngest population (Population Reference Bureau 2003; UN 2001). Figure 1.9 reflects the
This population structure has given Sub-Saharan Africa the highest dependency ratio\(^7\) in the world, about 90 percent for the last two decades, much higher than East Asia’s 50 percent and South Asia’s 70 percent (World Bank 2002d). The effect of this high dependency ratio can be seen in Niger, where the dependency ratio will not permit an increase in personal savings until 2035 (box 1.2). The higher the dependency ratio, the greater the pressure on households, communities, and governments to provide basic needs for dependents and to invest in social services and infrastructure such as health care. Children under 15 years require the greatest investment.
Box 1.2 Rapid population growth in Sub-Saharan Africa leads to high dependency ratios

The population of Sub-Saharan Africa was estimated at about 650 million in 2000. According to the 2002 population projections of the United Nations (medium assumption), the population of the continent will grow rapidly to reach 1.8 billion people by 2050 (figure 1.10).

The populations of Niger and Liberia could increase fivefold before 2050. The Democratic Republic of Congo, Angola, Burkina Faso, and Somalia could see their populations multiplied by four or more by 2050. South Africa, well on its way to achieving the fertility transition, could attain replacement fertility (2.1 live births per woman) in 2020–25.

These projections do not take the HIV/AIDS epidemic into account. They are also based on very optimistic assumptions about the decline of fertility. In the UN medium assumption, the total fertility rate (TFR), or the average number of children per woman, is assumed to drop from 5.8 to 4 in 25 years, and then to reach 2.4 in 2050. This appears too ambitious in the light of the most recent data and evidence. Indeed, at the end of the 1990s, 24 countries worldwide—13 in Sub-Saharan Africa—were still classified as high fertility countries (TFR of 6 or above) that had not started their fertility transition.

The sustained population growth in Sub-Saharan Africa has had a considerable impact on age structure. In 2000, 43 percent of the population (excluding South Africa) was below age 15, and only five countries had more than 60 percent of their population above age 15, making the overall population the world’s youngest. One of every four persons is 10 to 19 years old (a statistic that highlights the needs of adolescents).

This very young population structure has given Africa the highest dependency ratio in the world, about 90 percent, compared with 50 percent in East Asia. Because this adds to the difficulties of providing much-needed human capital investments, population and reproductive health will remain high on the Sub-Saharan agenda for at least the next two decades.

Sources: UN 2003a; World Bank 2002d.

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**Figure 1.10 Will Africa have 1.8 billion people in 2050?**

Source: UN 2003a.
**Fertility and contraception.** Historically, countries have experienced mortality declines followed at varying intervals by a fertility decline. In almost all African countries, however, women still have more children than they would actually like to have. That is reflected in the slow fertility transition over the last three decades and the population growth rate, which remains high despite rising education and urbanization. Although the region’s average total fertility rate (TFR)\(^8\) came down from 6.6 in 1982 to 5.9 in 1992 and 5.3 in 1999, 13 countries (including three of the big four—Nigeria, Ethiopia, and the Democratic Republic of Congo) still have TFRs of 6.0 or higher, and an additional 18 countries have TFRs between 5.0 and 6.0 (World Bank 2002a).

African women are exposed to the risk of becoming pregnant from adolescence, when many become sexually active or are married, to menopause. Family planning (with female education and female employment) is the most effective way of preventing unwanted pregnancies and limiting the number of births, but until recently family planning programs have been weak in most countries, with only a few exceptions (Kenya, Zimbabwe, Botswana, and South Africa). In Central and West Africa, national programs remain particularly weak or nonexistent. The proportion of women using modern contraception is only 4 percent in Central Africa, 8 percent in Western Africa, 16 percent in Eastern Africa, and 52 percent in Southern Africa (figure 1.11). Nigeria, with a contraceptive prevalence rate of only 15 to 20 percent and a TFR of 6.2, is among the top five contributors to world population growth, adding almost three million people every year (figure 1.12) (World Bank 2002a).

The differences in contraceptive use are directly related to the intensity and duration of efforts to increase access to family planning services. Kenya, with its well-established family planning program, has a modern contraceptive prevalence rate of 41 percent, around twice that of neighboring Uganda (22 percent) and Tanzania (18 percent) (Ross and Stover 2001). In Western and Central Africa, serious large-scale efforts by governments to improve family planning services are still in their infancy.

Against the tide of demand for reproductive health in Africa, global funding for family planning has declined considerably since the 1994 Cairo Conference on Population and Development. UNFPA estimated a shortfall of US$2.1–3.8 billion between the estimate at Cairo and actual deliveries (table 1.3) (UNFPA 1997). The shift in attention of many major donors and African governments to HIV/AIDS prevention at the expense
Figure 1.11 Not many married women use modern contraception


Figure 1.12 Sub-Saharan Africa has the highest fertility rates

of family planning will further undermine family planning programs, possibly erasing the gains made in the 1980s.

**Maternal health and safe motherhood.** Maternal deaths in Sub-Saharan Africa account for about half the world’s total. Women in the region face a 1 in 16 chance of dying in childbirth, compared with about a 1 in 3,500 chance in industrialized countries (Demeny and McNicoll 2003). In addition, for every woman who dies, about 30 endure injuries, infections, and disabilities in pregnancy or childbirth (UNICEF 2003). A 1999 review of the Safe Motherhood Initiative (launched in Nairobi in 1988) concluded that in Africa the situation had actually worsened (Safe Motherhood Inter-Agency Group 2003): while the availability of skilled care at delivery has improved in all other regions over the past decade, it has remained stagnant in Africa (WHO, UNICEF, and UNFPA 2001). It is recognized that access to essential obstetric care is required to reduce maternal deaths, but national data on its availability and use remain scarce and experience tells us that progress is marginal at best.

Two of the leading contributors to maternal mortality are unsafe abortions and anemia (much of it caused by malaria). Others are hemorrhage, sepsis, obstructed labor, eclampsia, and tetanus. Unless family planning programs can respond to the unmet demand for contraception (figure 1.13), induced abortion and resulting maternal mortality will continue to increase. Unsafe abortion now accounts for about 13 percent of the region’s maternal deaths, with higher rates in West Africa (FCI and IAG 1998). In Nigeria, where contraceptive use is low, an estimated 20,000 maternal deaths each year are due to abortion (Raufu 2002), and even in Ghana’s capital, Accra, abortion is the leading cause of maternal death (INFO 2001; Srofenyoh and Lassey 2003).

Some 50 percent of pregnant African women are anemic, mostly due to malaria, a major contributor to maternal deaths and low birth weights.

### Table 1.3 All scenarios project a shortfall in resources for population and reproductive health (billions of US$)

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Donor flows</th>
<th>Domestic flows</th>
<th>Total resources</th>
<th>Shortfall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant growth in GDP</td>
<td>3.6</td>
<td>11.3</td>
<td>14.9</td>
<td>2.1</td>
</tr>
<tr>
<td>Intermediate growth</td>
<td>2.8</td>
<td>11.3</td>
<td>14.4</td>
<td>2.9</td>
</tr>
<tr>
<td>Low growth in GDP</td>
<td>3.6</td>
<td>9.6</td>
<td>13.2</td>
<td>3.8</td>
</tr>
</tbody>
</table>

*Source: UNFPA 1997.*
Sexually transmitted disease also contributes to maternal mortality and disability, with an estimated 69 million new cases of curable sexually transmitted infections in Africa every year, or 257 new cases for every 1,000 people between the ages of 15 and 49 (WHO 2001a). The presence of such an infection multiplies the risk of HIV transmission two to nine times. Both the medical causes of maternal mortality and the interventions for treatment are well known, yet women in Africa continue to suffer complications and die in large numbers.

**Africa’s health sector faces special challenges**

Africa is not one place, and there are exceptions to every generalization, but relative to other regions, Africa faces unique challenges in improving the state of health, nutrition, and population among the poor:

- Geography, environment, culture, and conflict have distinctive effects on the prevalence of disease and on the supply of and demand for modern health services;
- Donors influence health sector investment in Africa more than they do in any other region;
Institutional capacity in Africa is still very limited;

AIDS places an insupportable burden on health systems, in ways both quantitatively and qualitatively different from the ways it affects other regions.

**Geography, environment, culture, and conflict have distinctive effects**

Sub-Saharan Africa covers nearly 12 million square miles and is divided into 47 countries. More than 800 languages are spoken. Two-thirds of the region is desert or dry land, experiencing frequent and severe droughts.

The continent harbors the world’s most virulent and deadly diseases, many of them specific to Africa. It is home to *Anopheles gambiae*, the most efficient subspecies of the mosquito that transmits the malaria parasite; *Plasmodium falciparum*, the most deadly of all malaria parasites, is prevalent mainly in Sub-Saharan Africa. The region is also home to the tsetse fly, which transmits trypanosomiasis (sleeping sickness), three of the five parasites that cause schistosomiasis (bilharzia), and the black fly, which transmits onchocerciasis (river blindness).

The fact that almost 45 percent of the population is under 15 years of age is another special challenge (May 1999). This demographic makeup, added to the epidemiology of childhood illness and the lack of access to effective services, produces the large proportionate burden of childhood illness and death, demanding continued emphasis on child and adolescent health. Many of the poorest people are in sparsely populated areas, which raises the unit cost of services and affects access to services, placement of staff, and the potential for the private sector.

Much of the region’s limited expressed demand for modern and preventive services is due to a complicated web of factors, including poor quality, formal and informal fees, and high opportunity costs, as well as traditional beliefs and culture. Feeding practices, care-seeking behavior, gender inequalities, traditional beliefs about disease, and a continuing demand for large families deter the use of available health, nutrition, and population services. More attention also needs to be given to how households make spending and investment decisions: the limited information available to households (compounded by high illiteracy rates), the interaction of resource and time constraints, the power relationships within households, and cultural influences on preferences all shape decisions on the use of services (Haddad, Adams, and Harnett 1995).
Governance plays a part, too, affecting both the interest of policymakers in improving health outcomes among the poor and their capacity to make changes that will improve those outcomes. The World Bank’s country policy and institutional assessments rate countries on a scale of 1 (low) to 6 (high), encompassing 20 variables in economic management, structural policies, policies for social inclusion, and public sector management and institutions. The Africa region (averaged across countries) scores the lowest of all regions, with only five countries in the region rating 4 or better.

One-third of the countries scoring three points or below on Transparency International’s Corruption Perceptions Index in 2001 were in Sub-Saharan Africa (9 of the 15 Sub-Saharan countries evaluated) (Lambsdorff 2001). This perception of corruption in the region—along with experiences of payment delays and difficulties in adhering to contractual agreements—discourages the private sector. It also affects competitive offers for pharmaceutical and medical supplies and for consulting and civil work, because fewer contractors bid on tenders and those that do set prices to cover perceived risks.

There is also the challenge of conflict. Between 1963 and 1998, 26 wars or significant conflicts erupted in Africa, affecting around 450 million people, more than 60 percent of the continent’s total population (White and others 2001). Social services were—and in many cases continue to be—disrupted in Angola, Chad, the Democratic Republic of Congo, Ethiopia, Liberia, Mozambique, Rwanda, Somalia, and Sudan. Ethiopia was engaged in one of the longest civil wars in Africa, with resolution only in 1991 and the independence of Eritrea in 1993. Ethiopia and Eritrea resumed conflict between May 1998 and June 2000, with a peace accord in December 2000. Despite the peace accord, militaries remain in place and political tensions continue. Similar patterns exist in many other African countries.

Conflict has indirect and direct effects on health: indirectly it diverts resources away from the sector, and directly it deters services from reaching displaced populations and disputed territories and destroys health infrastructure. In Mozambique, Renamo targeted health posts, and in Angola the civil war left much of the population inaccessible by the Ministry of Health. Displaced populations, though more vulnerable to malaria, tuberculosis, and other communicable diseases, are less likely to receive preventive health services. Conflict and rapid population movements are also associated with an increase in sexually transmitted infections, particularly HIV/AIDS, and tuberculosis.
Donors heavily influence health sector investment

A particular challenge faced by African countries in their health, nutrition, and population development efforts is the balance of power in dialogue and negotiations around development strategies given the level of dependence on external financiers. This external support may not always represent a large share of total health, nutrition, and population expenditures, but it often represents what can readily be mobilized for investment financing and some nonsalary expenditures.

Sub-Saharan Africa receives the largest share of total worldwide donor support for health, nutrition, and population (38.5 percent), and accounts for the highest support per capita (US$2.45) (World Bank 2001a). Across the region, 10 percent of health expenditures—$1.2 billion—is financed by external sources, five times the proportion in Latin America and Asia (Michaud and Murray 1993). In the lowest-income countries (for instance, Burkina Faso, Cape Verde, Liberia, Mozambique, São Tomé and Príncipe, Somalia, and The Gambia), 20 percent or more is financed (WHO Commission on Macroeconomics and Health 2002b). In Mozambique in 2000, external funding accounted for 70 percent of the total health budget (WHO 2002e).

Even though almost 90 percent of all health expenditures in Africa as a whole are domestic, donors have more than proportional clout because of their number, because of their influence over investment decisions (little discretionary financing remains in government hands), and because they provide much needed foreign exchange. In addition, individual donors such as France and the United Kingdom sometimes enjoy significant informal political, financial, and professional power in their former colonies.

Although donors bring much needed support, they also burden government staff with demands for meetings, parallel accounting and reporting requirements, individual agency procedures and documentation, and the need to host visiting missions. Also, health, probably more than any other sector, elicits a compassionate response from the global community (box 1.3). This can result in the donation of drugs that are not relevant to the local situation or are already expired, visits by ad hoc teams of doctors, construction of facilities by international NGOs that expect government to assume responsibility when they depart, and donations of equipment that may be inappropriate or lack any maintenance support.

UNAIDS, Stop TB, Roll Back Malaria, GAVI, the Tobacco Free Initiative, the Polio Partnership, the Micronutrient Initiative, the Global Fund to
TODAY’S REALITIES

**Box 1.3 “Feel good” risks**

The risk of substituting a desire to “do good” for rigor and pragmatism is especially high in [the health] sector because of . . . the empathic response to the tragedy of preventable disease and early death. But a desire to do good can even produce harm when, for instance, untested or only partially considered policy alternatives produce unintended consequences . . . . Decisionmakers involved in setting and implementing policies governing the amounts, forms, and flows of development assistance for health need to be sensitive to these “feel good” risks, given the many technical and practical problems of policy evaluation in the sector.

*Source: WHO Commission on Macroeconomics and Health 2002b, pp. 26-7.*

Fight AIDS, Tuberculosis and Malaria, and many other global efforts were initiated between 1996 and 2003. Each has its own secretariat, targets, approach, missions, conditions, and modes of financing. African governments are asked to design strategies, produce plans, write budgets, set and monitor targets, submit information, incorporate approaches, form national committees, undertake reviews, allocate staff, and send senior officials to international meetings on each of these global priorities.

Working groups of the Commission on Macroeconomics and Health have acknowledged the challenges of using health budgets in Africa efficiently and using additional external financing effectively and sustainably (Health Care in Poor Countries 2002). Even so, the Commission’s summary report urges a manifold increase in development assistance for health, nutrition, and population, from US$6 billion a year today to US$27 billion a year by 2007 (WHO Commission on Macroeconomics and Health 2001).

**Institutional capacity is limited**

Most African nations, independent only since the 1960s, are still constrained by their colonial past (box 1.4). Most have small populations, more than one-third of them having five million or less. National and regional institutions lack experience. The health, nutrition, and population sector in most sub-Saharan countries is still dominated by the public sector, with the private sector only beginning to emerge and regulatory frameworks still nascent. The frequent nondemocratic
changes and upheavals in governments and bureaucracy have also impeded the development of institutions in Africa.

Capacity differences may explain the variations between African and Asian or Latin American health systems development—as well as health outcomes—better than differences in GNP per capita. Capacity is also affected by the small size of many nations and economies. India and China, with their huge economies and populations, have per capita GNPs similar to those of many countries in Sub-Saharan Africa, but much greater institutional capacity and much better health outcomes. Indeed, within Sub-Saharan Africa, the larger countries of South Africa and Nigeria do have more developed research and training institutions and universities and greater private sector engagement.

A clear relationship also exists between educational attainment and institutional and systems capacity. Excluding South Africa, 70 percent of women and 48 percent of men above the age of 15 in Sub-Saharan Africa are illiterate. The gross secondary enrollment rate is 26 percent, compared with 49 percent in India and 53 percent across Latin America (UNESCO Institute for Statistics 1999). Sub-Saharan Africa has fewer human and physical resources than any other region of the world. Even rapid infusions of financial resources cannot rapidly redress these imbalances, because it takes time to establish the infrastructure and develop the manpower (for example, 8 to 12 years on average after secondary school to produce a practicing physician).

The severe discrepancies in physicians per capita reflect Africa’s difficulties in producing and retaining enough individuals with sufficient education (figure 1.14). They also reflect ready opportunities abroad and
the lack of incentives to remain in the region. Only about 4,000 pediatricians reside in all Sub-Saharan Africa, 500 of them in Nigeria (still only 1 pediatrician per 100,000 Nigerian children) (Schaffer 2002).

**HIV/AIDS places an insupportable burden on the health sector**

The impact of HIV/AIDS on the continent’s human resource base is of crisis proportions, primarily affecting the economically active and productive groups—educated people and urban dwellers, including civil servants, teachers, and medical personnel. For example, Zambia lost 1,300 teachers to HIV/AIDS in 1998—about two thirds of the number of teachers trained each year (UNAIDS 2000). The resulting limits on availability and quality of human resources make it more difficult to provide social services. HIV/AIDS also increases demand for care for diarrheal disease, skin disease, and tuberculosis, escalating the demand on routine health services.

HIV/AIDS has revealed how poorly African health systems and health services are equipped and organized to respond to a crisis. This has dramatically increased the attention national and global leaders give to health. However, HIV/AIDS is now overwhelming the capacity of most
countries’ health systems to deal with the disease burden and also reducing the availability of development assistance for other health problems.

HIV/AIDS is the single most important factor determining the increased incidence of tuberculosis in Africa, where 1.5 million additional cases of tuberculosis a year have been reported for the last 10 years (figure 1.15) (WHO 2002c). WHO’s list of 22 high-burden countries includes nine countries in Sub-Saharan Africa. Estimates for 2001 ranged from 628 cases per 100,000 population in Zimbabwe to 235 in Nigeria (WHO 2003a).

Of the 13.2 million children under the age of 15 globally who had lost one or both parents to HIV/AIDS at the end of 1999, 12.1 million were Africans (figure 1.16). Orphans are more disadvantaged than the average child because they do not get the household resources that nonorphans do (Case, Paxson, and Ableidinger 2003), and they miss much of the parent-to-child transmission of knowledge and skills. A WHO study in Zimbabwe found that nearly 81 percent of orphans resided with grandmothers and older aunts. This places a strain on older people, who are under physical and emotional stress and must bear the stigma for the disease, including negative attitudes from health staff (WHO 2002a). They also suffer financial hardship in trying to pay for school fees and health services.

![Figure 1.15: Tuberculosis cases are rising fast in Sub-Saharan Africa](source: Elzinga 2003.)
Conclusion

While all other regions in the world are expecting improvements in health services and health outcomes over the next 20 years, Sub-Saharan Africa alone anticipates further deterioration in its health services and a stagnation or worsening of its health outcomes, especially among the poor. The few successes in disease control (vitamin A, river blindness) or health policy (for example, new WTO rules on pharmaceutical patents) are insufficient to meet the unique challenges facing Africa: the severe institutional and human capacity constraints and the adverse geographical, political, and cultural circumstances.

Health, nutrition, and population challenges in Africa have grown so different quantitatively from those in other regions that they have become qualitatively different as well. Many indicators relate to challenges outside...
the health sector, such as availability of clean water, education for women, and access to food and markets. The following chapters will address what the Bank’s response should be to this situation and where the Bank might have a comparative advantage in contributing to improved health, nutrition, and population outcomes in Sub-Saharan Africa.
Why and How the World Bank Should Be Involved

If the World Bank is to achieve its mission of poverty reduction, it will have to achieve improvements in health, nutrition, and population outcomes in Sub-Saharan Africa. Poor health contributes to households becoming or remaining poor, whereas improved health can lead to higher household incomes. High dependency ratios and continuing high fertility rates deter economic growth in the region. However, poverty is no longer recognized only in economic terms, as improving health, nutrition, and population outcomes is required to attain the Millennium Development Goals (MDGs).

There is no simple formula for improving health, nutrition, and population outcomes among the poor, for those outcomes are affected by a wide range of determinants, many of them influenced by policies, expenditures, and programs outside the health sector. The Bank cannot address all of the many determinants of better health outcomes and so should focus on its areas of comparative advantage. Client countries, development partners, and staff suggest that the Bank should use its capacity to advocate with and influence policymakers, and that the Bank should continue to transfer resources to support investments in health, nutrition, and population. The Bank’s comparative advantage also suggests that it should focus its knowledge transfer and policy advice, analysis, appraisal, and monitoring and evaluation work on four broad areas: macroeconomic and fiscal policy, multi-sector action, health systems, and health financing.
Poverty and health in Sub-Saharan Africa are interrelated

Poorer households have more health problems, worse nutritional status, and higher fertility rates than wealthier households. Ill health, malnutrition, and high fertility reduce income and can impoverish non-poor households. Poverty and health are interrelated in Sub-Saharan Africa (figure 2.1), and poverty reduction efforts will thus also need to address health and income growth.

Higher incomes lead to better health, but, even more, better health leads to higher incomes

A variety of studies at the individual and national levels estimate the effect of income on health outcomes. One that is particularly compelling in its methods and findings concludes that half a million infant deaths could have been averted in 1990 if Africa’s growth rates in the 1980s had been higher.

Figure 2.1 Health and poverty are linked in a cycle

<table>
<thead>
<tr>
<th>Characteristics of the poor</th>
<th>Poor health outcomes</th>
<th>Diminished income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inadequate service utilization, unhealthy sanitary and dietary practices, and so on</td>
<td>Ill-health</td>
<td>Loss of wages</td>
</tr>
<tr>
<td>Caused by:</td>
<td>Malnutrition</td>
<td>Costs of health care</td>
</tr>
<tr>
<td>Lack of income knowledge</td>
<td>High fertility</td>
<td>Greater vulnerability</td>
</tr>
<tr>
<td>Poverty in community social norms, weak institutions and infrastructure, bad environment</td>
<td></td>
<td>to catastrophic illness</td>
</tr>
<tr>
<td>Poor health provision—inaccessible, lacks key inputs, irrelevant services, low quality</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Excluded from health finance system—limited insurance, copayments</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

WHY AND HOW THE WORLD BANK SHOULD BE INVOLVED

been 1.5 percentage points higher than they actually were (Pritchett and Summers 1996). But economic growth is not a prerequisite for improvements in health status, as evidenced in Latin America and South Asia, where improvements have been observed in countries with very low levels of economic growth. In addition, in some parts of Africa, infant mortality has declined even when per capita income was not growing.

The correlation between better health and faster economic growth may also hold up when one accounts for cross-country patterns (Barro and Sala-i-Martin 1995; Bloom and Sachs 1998). Generally, each 10 percent improvement in life expectancy at birth is associated with a rise in economic growth of 0.3 to 0.4 percentage points a year, holding all other growth factors constant, so the difference in annual growth accounted for by life expectancy between a typical high-income country (77 years) and a typical least-developed country (49 years) is about 1.6 to 2.2 percentage points a year (WHO Commission on Macroeconomics and Health 2001). A recent econometric study found that more than half of Africa’s growth shortfall relative to the high-growth countries of East Asia could be explained more by disease burden, demography, and geography than by the traditional variables of macroeconomic policy and political governance (Bloom and Sachs 1998).

Evidence from the latter part of the 20th century shows that health has often improved before income increased, and improved health appears to contribute to economic growth. All the newly industrialized economies of East Asia had greatly reduced their infant mortality rates before their economic takeoff. Sri Lanka and Mongolia are examples of countries with limited economic development that have achieved significant improvements in health status through effective social sector policies. This suggests that economic takeoffs have not been responsible for dramatic improvements in health status, but rather that improvements in health lead to economic growth, as a growing body of literature suggests (Barro 1997; WHO Commission on Macroeconomics and Health 2002b).

Numerous studies have sought to isolate the effects of health and nutritional status on per capita incomes. The data are strongest for the effect of nutrition on worker productivity and income (Strauss and Thomas 1998). Body size and food supply have been shown to be critical to long-term labor productivity, a finding of particular importance in Africa, where the majority of the population relies upon earnings from physical labor (Fogel 1991, 1997, 2000). Other studies have noted the similar positive impact of control of schistosomiasis on workers’ produc-
Recent studies from Latin America also show that health status has a significant, if modest, impact on earnings (Savedoff and Shultz 2000). Africa loses twice as much labor to illness as the second most afflicted region (Gelb 2000). Of course, the increased productivity of individuals may not translate into better economic welfare if employment and market opportunities are not favorable. A 1990s analysis of the changes in life expectancy in 94 developing countries attributed half of the improvement to the provision of preventive and curative health services (Asian Development Bank 1999). In short, health and productivity alone are not sufficient to produce economic growth, but they are necessary precursors to it.

On the negative side, recent studies taking into account not only productivity but also all other potential impacts of ill health, including reduced investment, highlight the potential of disease to diminish the rate of economic growth (Christiaensen, Demery, and Paternostro 2003; Deininger and Okidi 2003). A high prevalence of a disease such as malaria is associated with persistent and significant reductions in rates of economic growth. Growth in per capita income from 1965 to 1990 for countries with severe malaria transmission was estimated to be only 0.4 percent a year, far less than the 2.3 percent in countries with fewer malaria infections (Breman, Egan, and Keusch 2001). Malaria is estimated to reduce GDP per capita growth by at least 0.25 percentage points a year in about one-quarter of sample countries (McCarthy, Wolf, and Wu 2000). The loss of Sub-Saharan GNP due to malaria between 1992 and 1995 was estimated at 20 percent (Gallup and Sachs 2000).

The potentially severe effect of illness and death from HIV/AIDS on agricultural production has been recognized clearly. In West Africa, AIDS is associated with reduced cultivation of cash crops or food products (including market gardening in two provinces in Burkina Faso, and cotton, coffee, and cocoa plantations in parts of Côte d’Ivoire). Some companies in Africa have already experienced the impact of HIV/AIDS on their balance sheets (Macan-Markar 2000). Managers at a sugar estate in Kenya noted higher absenteeism, lower productivity, and higher overtime costs for workers obliged to work longer hours to fill in for sick colleagues (UNAIDS 2000). The costs of social benefits related to HIV infection have risen sharply in the same company due to funerals and health-related needs. In South Africa, which has the world’s highest number of HIV-infected people, legislation considered in 2003 would have required companies to report the prevalence of HIV/AIDS among
their workers as part of their annual reports and their listings on the Johannesburg Securities Exchange (AIDS and South African Business 2002; Wessels 2003).

As HIV prevalence rates rise, both national income and income growth decrease significantly. African countries in which less than 5 percent of the adult population is infected are expected to experience a modest impact on GDP growth rate, but as the HIV prevalence rate rises to 20 percent or more (already the case in much of Southern Africa), GDP growth rates may decline significantly. A recent study estimated that Africa’s income growth per capita is being reduced by about 0.7 percentage point a year due to HIV/AIDS (UNAIDS 2000). If the prevalence of HIV had not reached 8.6 percent in 1999, Africa’s per capita income could have grown at 1.1 percent a year, or nearly three times the 0.4 percent a year achieved between 1990 and 1997 (Ainsworth and Over 1997). Levels of GDP per capita in Southern Africa are expected to decline significantly over the next 20 years; for example, the expected decline is 5 percent in Mozambique and 13 percent in Botswana, due mainly to a decline in human capital (Haacker 2001).

**Continuing high fertility rates and high dependency ratios deter economic growth in Sub-Saharan Africa**

Rapid population growth and the rising proportion of the 0–15 age group in the total population have had a measurable negative impact on economic growth (Solow 1956). A review of the evidence from 1960 to 1995 concluded that rapid population growth and the resulting demographic structure appear to have exerted a fairly strong adverse effect on the pace of economic growth (Kelley and Schmidt 1994). Africa’s fertility rates, population growth, and resulting dependency ratios are not conducive to growth (table 2.1). Conversely, demographic changes—especially the increase in the share of the working age population and the increase in savings induced by positive changes in the dependency ratio—can be associated with as much as one-third of the 6 percent per capita income growth in East Asia over the last 35 years. This effect was shown to be even more important for very low income countries: the lower the initial per capita income, the greater the net positive impact of demographic changes, especially fertility decline. Between 1965 and 1990 this change occurred in all regions of the world except Africa.
Improving Health, Nutrition, and Population Outcomes in Sub-Saharan Africa

Table 2.1 Population indicators are high in Africa (selected countries)

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Niger</td>
<td>8.0</td>
<td>8.0</td>
<td>3.5</td>
<td>20</td>
<td>108%</td>
</tr>
<tr>
<td>Uganda</td>
<td>7.1</td>
<td>7.1</td>
<td>3.0</td>
<td>23</td>
<td>108%</td>
</tr>
<tr>
<td>Mali</td>
<td>7.0</td>
<td>7.0</td>
<td>2.6</td>
<td>27</td>
<td>101%</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>6.9</td>
<td>6.8</td>
<td>2.8</td>
<td>25</td>
<td>93%</td>
</tr>
<tr>
<td>Nigeria</td>
<td>6.5</td>
<td>5.6</td>
<td>2.8</td>
<td>25</td>
<td>92%</td>
</tr>
<tr>
<td>South Africa</td>
<td>3.4</td>
<td>2.9</td>
<td>1.7</td>
<td>41</td>
<td>60%</td>
</tr>
</tbody>
</table>

Source: WHO 2002e.

An analysis of economic and demographic data in 45 African countries estimates that high fertility pushes up absolute levels of poverty (Eastwood and Lipton 1999). As countries move through the demographic transition of falling mortality followed eventually by falling fertility, they first experience rising child dependency ratios and then falling ratios as a larger proportion of the population reaches working age. Africa has not yet experienced this second phase (figure 2.2) (Birdsall, Kelley, and Sinding 2001).

Figure 2.2 Africa’s window of opportunity is still decades away as dependency rates remain high

Reductions in fertility can, under favorable policy circumstances, have a strong effect on economic growth, both directly in association with lower mortality, and indirectly by bringing countries to a window of opportunity or “demographic gift” in which the dependency ratio stays very low for a few years due to an increase in the share of people of working age in the population. When one considers the effects of population growth on economic growth, growth of the population in general must be distinguished from growth in the working age population (Bloom and Williamson 1998). If the rate of growth of the working age population exceeds that of the population as a whole, the economic growth rate will exceed the rate for the steady state population.

In addition to contributing to faster income growth, rapid declines in fertility have been shown to make a quantitatively relevant contribution to reducing the incidence and severity of poverty. Female participation in the labor force made possible by decreasing fertility can be important. Evidence also exists that decreases in fertility and infant mortality help to create a virtual cycle of growth by increasing investments in children’s education and modifying the dependency ratio. The increase in the working age population and the increase in savings induced by changes in dependency have been associated with as much as one-third of the per capita growth rate (Williamson 2001).

However, a major acceleration of growth in the very low income countries of Sub-Saharan Africa is unlikely without a dramatic improvement in human capital. Better health and nutrition and lower fertility, together with primary education, are crucial elements of this equation. Better health and nutrition will increase labor productivity, critical to achieving Africa’s potential for growth (Gelb 2000). The potential impact of the demographic transition, with the related benefits of low dependency ratios and increased access to education, is yet to be seen in the region, except in South Africa. In addition, reducing the spread of AIDS and controlling the impact of malaria on breadwinners will be essential elements in encouraging investment, ensuring sustainable health care costs for employers, and keeping skilled workers and breadwinners alive.

**Poor health contributes to households becoming or remaining poor**

In *Voices of the Poor: Crying Out for Change* (Narayan, Chambers, and others 2000), an in-depth poverty analysis of 14 countries including
Ghana, Malawi, and Nigeria, poor people generally identified ill health as both a primary cause and a consequence of poverty. Africans noted ill health more frequently as a consequence of poverty than participants in any other region. The importance of good health care for poor people cannot be overstated: their livelihood and survival depend on their good health. Often, those most exposed to health risks are those least able to bear the burden of health care expenses.

A study conducted in Namibia by the Food and Agriculture Organization (Engh, Stloukal, and du Guerny 2000) concluded that the impact of AIDS on livestock management was considerable, with a heavy gender bias. Households headed by women and children generally lost their cattle, which jeopardized the food security of the surviving members. In Zimbabwe, households affected by AIDS have been shown to significantly reduce their agricultural production (table 2.2). According to a study in Côte d’Ivoire (UN OCHA 2001), income in AIDS-affected households was half that of the average household, and that diminished income was further constrained by increasing costs for care, transportation, and medical expenses. Spending on health care doubled for adults who became infected, with anecdotal evidence that sick children were not treated in households spending most of their money on medicines for an adult suffering with AIDS.

Poor households can be devastated by expenditures linked to illness. In *Voices of the Poor* (Narayan, Patel, and others 2000), illness was identified as a major cause of impoverishment. While most families manage the cost of a minor illness through forms of self-insurance such as selling livestock or seeking assistance from relatives, few poor families can afford a serious illness that requires a hospital stay or the prolonged use of costly drugs. Catastrophic illnesses often push poor households into major economic difficulties (Narayan and others 1999). Studies have shown that up to 50 percent of financial crises in poor families are

<table>
<thead>
<tr>
<th>Crop</th>
<th>Reduction in output (%)</th>
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<tbody>
<tr>
<td>Maize</td>
<td>61</td>
</tr>
<tr>
<td>Cotton</td>
<td>47</td>
</tr>
<tr>
<td>Groundnuts</td>
<td>40</td>
</tr>
</tbody>
</table>

*Source: Institute of Social Studies 1998.*
triggered by catastrophic illnesses, including tuberculosis, AIDS, and severe malaria. In Africa the most important trigger for downward mobility was illness and injury; every illness was dreaded by poor people (Dercon 2000).

Certain factors aggravate the situation of poor households in Africa relative to other regions. The cost of drugs for both the government and the users is higher on average in Africa than elsewhere. Transportation is a very large component of out-of-pocket health-related expenditures in Africa due to poor infrastructure, sparse population distribution, and poorly functioning markets. In Côte d’Ivoire, for example, the demand for health services was found to be influenced more by transportation than by the price of service (Dor and van der Gaag 1987).

The so-called transitory poor move in and out of poverty as they experience and deal with illness. AIDS triggers higher household expenditures; data from Tanzania and Côte d’Ivoire show its impoverishing effect. A World Bank study in Tanzania showed that households affected by HIV experienced a drop in their income for approximately two years before recovering (Ainsworth and Semali 2000). This is partly why the HIV/AIDS epidemic has been so devastating: it hits the income-earning age group the hardest.

Out-of-pocket expenses are a significant burden on the budgets of African households, accounting for 33 percent of total health expenditures. Evidence from a few countries suggests that the African poor spend less on health than the rich, yet household expenditures on health represent between 5 and 10 percent of their overall income. Risk-pooling (insurance or medical aid programs), which could cushion households from the financial impact of unanticipated medical costs, remains negligible except in South Africa. Policies that protect households from the impoverishing effects of ill health, malnutrition, and high fertility, such as subsidies to essential services, health insurance, fee waiver schemes, and other safety nets, are thus likely to reduce losses in earning and the resulting income poverty.

**Poverty is not measured only in economic terms**

Health is now widely recognized as a facet of poverty. The appreciation that poverty is multidimensional suggests that it can no longer be assessed simply in income terms (World Bank 2000e). Fully half of the MDGs refer to health, nutrition, and population outcomes that cannot be
achieved without reducing malnutrition and child mortality, improving maternal health, and combating AIDS, malaria, and other diseases (box 2.1). A study of the feasibility of the MDGs suggests that a two-thirds reduction in the infant mortality rate by 2015 is likely to be met by all regions except Sub-Saharan Africa. In the best-case scenario, the projected infant mortality rate for the region could reach half of its 1993 level; this assumes no additional impact from HIV/AIDS. Sub-Saharan Africa is also unlikely to meet the targets for reductions in income poverty and hunger (Hanmer and others 1999).

**Health outcomes are affected in complex ways by a broad set of determinants**

Health outcomes are the result of complex and poorly understood interactions among households, communities, health services, other sectors, and the environment (box 2.2). The various determinants that affect outcomes include environment; knowledge; behavior; the availability, quality, organization, and regulation of services; and human, financial, and physical resources (figure 2.3).

A strong technical foundation exists for assuming the relationships between outputs and outcomes; for example, greater availability of contraceptives reduces fertility, and increased immunization coverage reduces measles deaths. For this reason, programs in Africa have generally been evaluated against a common set of output indicators

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**Box 2.1 The Millennium Development Goals**

1. Eradicate extreme poverty and hunger
2. Achieve universal primary education
3. Promote gender equity and empower women
4. Reduce child mortality
5. Improve maternal health
6. Combat HIV/AIDS, malaria, and other diseases
7. Ensure environmental sustainability
8. Develop a global partnership for development

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WHY AND HOW THE WORLD BANK SHOULD BE INVOLVED

Box 2.2 Households are the main producers of health

Households. Households produce health through their consumption of food, their sanitary, sexual, injury-preventive, and educational practices and behaviors, their consumption of health-damaging commodities (unhealthy food, cigarettes), and their use of preventive and curative health services. Some households obtain health care when ill and consume a healthy diet; others do not. Poor households, because of their poverty, invariably fall behind better-off households. The values and social norms a community shares can also make a big difference to health outcomes. Involving communities in the management of health services can improve social accountability and empower the poor.

Health services. The accessibility and availability of appropriate health services are keys to affecting health outcomes. Important issues include whether services are close enough to the population they serve, whether the infrastructure is good enough to enable access, how the poor are served by outreach health care workers (vaccinators or midwives), and the proportion of women among health care workers. Ensuring that facilities have supplies of key inputs—drugs, vaccines, medical supplies—is crucial. Other important dimensions include organizational quality, technical quality, and efficiency. Equally essential is the financing of health care: how much do different groups pay out-of-pocket? Who is covered by some form of insurance (public or private) and for what risks?

Other sectors. Some examples of the role of other sectors in HNP outcomes are the market for food, the education of women, the supply of potable water and sanitation, and the availability of roads and a transport system. Sometimes other sectors can have a harmful impact on health outcomes—for instance, through pollution, workplace health hazards, and traffic accidents.

Governments. Governments can influence the provision of health services in the public sector as well as in the private and charitable sectors. Their interventions can affect the financing of health services, the participation by sectors, and the behaviors of households (for example, by improving the education of girls and women) and communities (for example, by facilitating community planning and management of health facilities).


(proximate determinants of outcomes). However, even these assumptions need to be better understood. For example, targeting the leading communicable diseases in isolation will not necessarily improve child mortality rates. Malawi’s immunization program has been praised for reducing deaths from measles, and the country has achieved gains in many other indicators, but total child mortality has worsened (box 2.3). Africa has a higher proportion of births attended by skilled health personnel (46 percent) than Asia (32 percent, excluding China and India). Yet its maternal mortality rate is 940 per 100,000 live births, compared with 610 in Asia (WHO 2000a). Studies in Uganda demonstrated a high level of knowledge of how to prevent HIV transmission, yet new infections continued to rise.

The leading causes of child mortality in Sub-Saharan Africa today are malaria, pneumonia, and diarrheal disease. The incidence of these illnesses can be reduced by reducing exposure to indoor air pollution, using treated bednets, providing access to clean water, and observing
**Box 2.3 The Malawi paradox: Health services alone do not determine outcomes**

The “production function” of health outcomes varies over time and between countries. The relationship between the uptake of health interventions and the resulting outcomes is not always direct. For example, Malawi, a Sub-Saharan country with a GDP of US$160 per capita, has shown remarkable performance in delivering immunizations—consistently over 90 percent—and fairly high use of clinical services. Public expenditure reviews show fairly well functioning primary care services and higher use of treated bednets than elsewhere. Malawi also changed its treatment of malaria in response to resistance early. Yet under-five mortality has been increasing in recent years. Clearly, improvements in service delivery indicators (such as immunization coverage) alone will not always achieve desired outcomes.

The health system appears to be effective in services that can be controlled, contracted, and monitored, and ineffective in those that are highly discretionary and mostly under household control, such as use of condoms, feeding practices, and hand washing. The capacity of a government to influence what is going on in a home is much less than its capacity to control and monitor its own performance on immunization, a well-established health intervention.
proper sanitation practices. In order to significantly reduce these deaths, parents, teachers, and other caretakers must recognize symptoms and take the child to a facility promptly, and the child must then be correctly diagnosed and treated.

However, mothers often do not know when to seek care, and malnourished children can die very quickly from these diseases. Appropriate care is often too far away or unaffordable, or mothers may prefer traditional medicine. Care-seeking is affected not only by the location of infrastructure, but also by the mother’s education, household beliefs, pharmaceutical availability, care quality, provider effectiveness, out-of-pocket expenses, and staff attitude.

If a mother does get to a facility, in many settings she is unlikely to find help because of severe shortages in medical staff. If she does find staff, they may not have been properly trained or they may not apply what they know due to a lack of supervision or poor morale. If the child is appropriately diagnosed, the antimalarial, antibiotic, or rehydration solution may not be available or affordable, or its quality may be suspect. Children who contract malaria but do not die may subsequently die of pneumonia, so one avoided death might not reduce the mortality rate.

If current trends in mortality are to be reduced, the ways in which the range of determinants relate to one another to affect outcomes must be understood. The challenge of modeling the way in which a range of inputs produces health outcomes is widely recognized and accepted. Although Africa’s systems may be less complex than those in place elsewhere, it can be argued that the model of determinants in Africa needs to be understood better than models used in settings with fewer breakdowns and stronger underlying institutions and staffing.

Forty years of investment in health development in Africa have not produced the envisioned outcomes, which suggests that the relationships between determinants and outcomes are either not well understood or not well managed (box 2.4). Many development initiatives, however successful in achieving stated output objectives, have made incorrect assumptions about how those outputs would contribute to improved health outcomes, especially among the poor. Use of logical frameworks, establishment of baseline data, and monitoring and evaluation are important for understanding and tracking the intermediate factors leading to outcomes, as well as the outcomes themselves. There is a clear need for better monitoring and evaluation to understand where the models are incorrect and where they are not functioning as they should.
The World Bank should focus its work on its areas of comparative advantage

The range of determinants that affect health outcomes is much broader than the scope of Bank influence. From 1982 to 2001 the Bank committed US$2.8 billion for health, nutrition, and population in Africa, about US$142 million a year and only 1–2 percent of total health expenditures in Sub-Saharan Africa. The extent to which improvements in health indicators can be attributed to the Bank’s direct financial involvement in health is thus limited. That is why Bank influence—financial resources, analysis, knowledge transfer, and policy advice—should be positioned strategically.

The Bank cannot do everything

To be strategic, the Bank will have to recognize its comparative advantage relative to the many other development partners operating in the health sectors in Africa. The Bank’s health, nutrition, and population specialists cannot provide quality advice on all of the issues that affect the immense range of determinants of outcomes. The Bank has limited staff and limited operating budgets, and its institutional framework inhibits an effective contribution on certain issues, such as working directly with health providers, households, or communities. At the same time, the Bank as an institution has advantages that other partners do not.

Development partners and client countries recognize that the Bank’s comparative advantages intersect with the key challenges facing Africa’s health sector in four broad areas (figure 2.4):
Macroeconomics and health: influencing macroeconomic and fiscal policy as it relates to health, nutrition, and population.

Multi-sector action: ensuring that policies and investments outside the health sector have a positive impact upon health outcomes.

Health systems: helping client countries to develop effective service delivery systems.

Health financing: ensuring that resources are effectively mobilized and employed in ways that achieve the greatest impact and protect households from impoverishment due to illness.

The World Bank, guided by the region’s health, nutrition, and population staff, has four mechanisms for contributing to health, nutrition, and population outcomes in Africa:

- Advocacy at the country and global levels.
- Resource transfers (loans, credits, and grants).
- Knowledge transfers and policy advice.
- Analysis, appraisal, monitoring, and evaluation.

These are not independent areas for action. The Bank’s analytical work, together with its monitoring and evaluation efforts, is intended to strengthen the quality and usefulness of its knowledge transfer and policy advice and to continually improve the structuring and impact of the Bank’s resource transfers. In addition, the Bank’s advocacy for action in

**Figure 2.4 The Bank’s institutional comparative advantage overlaps with the most critical strategic HNP issues faced by client countries in Africa today**
Priority areas might be supported by preferential resource transfers, as for the Multi-Country HIV/AIDS Projects.

**Bank advocacy for health, nutrition, and population investments can influence those focused on economic growth**

World Bank health staff need to know which arguments will support investments in health, nutrition, and population, and translate those to country directors and client countries. HIV/AIDS has demonstrated to an unprecedented extent that advocacy by the World Bank can educate national leaders and decisionmakers and persuade them of the benefits of investing in efforts to reduce illness and death. The Bank’s analyses of the deleterious effect of HIV/AIDS on the economy and social welfare, together with direct engagement in dialogue by the Bank’s Africa Region vice president, country directors, and macroeconomists, have dramatically improved the understanding and commitment of government leaders and finance and economic planning ministers across Sub-Saharan Africa. The Bank’s commitment to the MDGs and indicators suggests that similar advocacy could now be brought to bear on malnutrition, child and maternal mortality, and the burden of other diseases that affect poverty.

Malnutrition warrants special advocacy by the Bank. With income per capita, it is one of the two Millennium Development Indicators of poverty, and Africa is the only region where malnutrition is increasing. More than any other sector issue, nutrition is multi-sectoral in nature and demands action at the national policy level in trade, food and agriculture, finance, social welfare, and education, as well as health.

The Bank, with the IMF, is in a good position to use advocacy and policy advice to address fiscal, macroeconomic, and budgetary constraints crucial to the performance of the health sector in Sub-Saharan Africa. As part of its macroeconomic dialogue, it can use information to quantify the consequences of ill health, malnutrition, or high fertility on economic growth, highlighting the role of the MDGs. Client countries, development partners, and many NGOs expect the Bank to contribute evidence on the impact of certain diseases and health interventions on poverty reduction and economic growth. There is much scope to perform this role better for population and nutrition—and for the poverty focus of health interventions.
The Bank is well positioned to pursue the issue of disparities in health and in access to services. Achieving the MDGs might mean little for the poorest people in Sub-Saharan Africa if the objectives are achieved through improvements among higher income groups. The Bank can advocate for the targeted strategies required to produce better outcomes for the poor. The Bank’s voice at the highest levels of government, with analytical work that demonstrates how reducing ill health, fertility, and malnutrition among the poorest is beneficial to the economy, can influence national policies, strategies, and financial commitments.

What clients do not want from the Bank is advocacy on behalf of numerous global programs and initiatives. The mushrooming of global public health initiatives presents a challenge for client countries in responding, managing, and effectively deriving advantages from them. Many countries have indicated that the Bank is the one partner that works with them to set overall priorities within their existing resource constraints (financial, human, and implementation capacity) and to release those resource constraints where possible, rather than advocating for an infinite number of priorities and initiatives. The feedback from clients is that they expect the Bank to support them in responding to these many initiatives and in ensuring that their own numerous competing development priorities are not crowded out by international demands. The Bank is also in a position to assist clients in determining how to use the financial resources and commitments associated with some of these initiatives, while ensuring that governments still recognize these priorities within their own budgets (box 2.5).

Resource transfers remain important for the Bank, but the mode of resource transfer is changing

Clients and partners value the Bank’s financial contributions (in loans, credits, and grants) to support African nations in improving health, nutrition, and population outcomes among the poor. Resource transfer will remain an important function for the Bank in Sub-Saharan Africa.

However, approaches to transferring resources to improve health outcomes have been moving away from project financing toward sector and budget support. Recognizing that money is fungible and that the absence of complementary financing by recipients can undermine the impact of targeted external financing, the World Bank (along with many other development partners) is moving toward sector-wide support
Box 2.5 How do global priorities respond to country priorities?

Growing numbers of global initiatives promote health, nutrition, and population priorities, including the Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM), the Global Alliance for Vaccines and Immunization (GAVI), Roll Back Malaria (RBM), Stop TB, the river blindness program (APOC), the International AIDS Vaccine Initiative (IAVI), the Global Alliance for Improved Nutrition (GAIN), and the Safe Motherhood Initiative, as well as initiatives on lymphatic filariasis, trachoma, polio, and measles. New initiatives are no doubt waiting in the wings.

African client countries are overwhelmed by the number of conferences, missions, strategy and planning workshops, and special directives related to global or regional health initiatives that require their input. They highlight the importance of coordinating earmarked financing and targeted technical assistance from these initiatives and developing an overall integrated national public and private health care program in support of reducing poverty.

At the global level most African countries can support disease initiatives as global public goods (for example, R&D funding for an AIDS or malaria vaccine is a global mandate). Even at the sub-regional level, shared functions and knowledge can benefit many (for example, the pooling of East African entomology expertise makes sense; epidemiological surveillance against meningitis at the sub-regional level in West Africa yields benefits beyond any national investments).

Most governments feel the disconnect between global and regional health initiatives and their need to develop an integrated health care program most severely at the district and local levels. Many initiatives have their own funding mechanisms and fiduciary requirements (disbursements, procurements, audits, reporting, fiscal years); staffing programs (category of workers, employment conditions and contracts, salary structures, incentive payments, training of staff); logistical arrangements (transportation, drugs, supplies); infrastructure (offices, separate health facilities); and management structure (national, regional and even local program managers). As a result, a country’s regular district medical officers and local health care and health post staff and nurses, not to mention the patients, feel bewildered by the chaotic array of specialized, uncoordinated, and often inconsistent services offered.

Client countries require support from the World Bank in managing and effectively benefiting from the complex array of global initiatives. The Bank can act as an interlocutor: at the global level it can promote harmonized approaches, and at the national level it can assist countries in integrating global initiatives into national frameworks.

Figure 2.5 The World Bank can help integrate the matrix of individual health care initiatives
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(funding for the health sector in total) or even budget support (financial support through the ministry of finance’s budget), as in Poverty Reduction Support Credits (PRSCs). The Bank and other development agencies recognize that, to achieve sustainable development, they must ensure that countries have the right health policies and priorities, adequate health sector implementation capacity, and sound health expenditure programs, not simply good health projects and the capacity to implement them. This means that, although the Bank will continue to transfer large amounts of external financing to Africa, the resources will be disbursed less often through specific health projects and more often as general systemic support to government-defined programs.

As the Bank moves toward sector programs and support for broader government poverty reduction strategies, the need for sector-specific engagement, knowledge, and expertise will not dissipate. As noted, greater resource transfers, while necessary, will not improve outcomes unless countries have effective strategies and adequate capacities to implement them. These challenges are currently evident in the heavily indebted poor country initiative (debt relief). Some countries have spent the additional resources in ways highly unlikely to contribute to poverty reduction and the improved health of their populations, while others have had difficulties disbursing the additional resources within the social sectors. A mandate for health sector specialists to appraise, monitor, evaluate, and conduct a professionally credible policy dialogue with the Bank’s health sector counterparts on sector strategies and implementation capacity, whether for sector investment financing or Poverty Reduction Strategy Papers (PRSPs), remains critical if the Bank is to ensure that its financing translates into better health outcomes for the poor.

Knowledge transfers and policy advice should focus on critical knowledge gaps and the Bank’s areas of comparative advantage

The international evidence is overwhelming and indisputable with regard to the most cost-effective interventions for addressing Africa’s burden of disease. Global knowledge of the ways in which prevention, diagnosis, and treatment can affect health outcomes is substantial. Both the World Development Report 1993 (World Bank 1993b) and the WHO Commission on Macroeconomics and Health (2001) state that the technical
knowledge base is more than enough to substantially reduce Africa’s burden of disease.

The Bank does not have the comparative advantage to advise on the technical content of health interventions, including household, community, and health service and public health measures. Other development partners—mainly WHO, UNICEF, and UNFPA, but also some bilateral donors and many research institutions—have the comparative advantage to conduct the analytical and evaluative work required to define the medical interventions that are most cost-effective in particular African circumstances. Nor does the Bank have the comparative advantage to advise or share knowledge on practical on-the-ground actions for communities, health facilities, or districts, although its policy advice and knowledge transfers can facilitate and enable effective actions at these levels.

The key constraints on improving HNP outcomes in Africa today are not the lack of knowledge or commitment to cost-effective interventions. Program managers within a ministry of health or a national food and nutrition commission, or agency staff working on immunization, tuberculosis, malaria, or even HIV/AIDS, generally do not lack knowledge of effective technical responses that could reduce the burden of disease if properly implemented. Instead, they identify key constraints as poor planning, confusion over decentralization, unclear decisionmaking, lack of autonomy, inappropriate allocation of limited resources, delayed drug delivery, unmotivated staff or the lack of staff, dilapidated facilities or equipment, lack of accessibility for rural or poor populations, the number of mothers near a facility who do not seek care for a child with fever, and poor compliance with prescribed treatment.

Many other competent actors are available to advise at the level of the household, community, health facility, and district, but few agencies are in a better position than the Bank to address the allocation of public sector resources, sustainable financing strategies, the organization and implementation capacity of the sector, and the ways policies and actions outside the sector affect health, nutrition, and population outcomes. Client countries expect the Bank to assist them in strengthening their health systems and capacities—manpower expansion, pharmaceutical provisions, and private sector involvement. They also expect the Bank to provide knowledge and policy advice in evaluating health sector financing strategies. They appreciate, in addition, that the Bank works across sectors and can identify opportunities and facilitate linkages.
The relationship among national policies, health system organization, resource allocation, and health outcomes is the least well understood

As noted, the interventions that could reduce the burden of illness and death in Africa are fairly well known. Significant work by WHO and other institutions better placed than the Bank to undertake such analysis continues to expand the knowledge base of the most cost-effective interventions. These agencies have also worked to identify better service delivery approaches, such as community-based distribution of contraceptives, directly observed short-course treatment for tuberculosis, community-directed treatment for onchocerciasis and lymphatic filariasis, and the publicity campaign for female condoms.

The least well understood determinants relate to health system organization, resource allocation, and health outcomes. No consensus exists among the OECD countries on best practices for the organization and financing of their countries’ health care. Witness the never-ending health reform politics of high-income countries. Health reforms in all regions of the world continue to test how the various policies related to the organization and financing of services can be employed most effectively.

In Sub-Saharan Africa the analysis of experience around these issues has been particularly weak. Peer-reviewed, published research on financing, efficiency, and system effectiveness in poor and constrained settings is scarce. The Africa region has limited capacity to contribute to its own knowledge base on health sector development, systems, and financing, as existing analytical capacity is often tapped to work outside the region. Support at the country level for health system research is limited. Few regional institutions can serve governments with multi-country analysis.

At the same time, Africa is coping with a new environment that asks governments to define their own priorities, address health within a broader poverty reduction and comprehensive development framework, and assume a leadership role in their relationship with external financiers. HIPC and PRSP initiatives support some diagnosis of the health sector, but assume that sufficient information exists to guide strategy development and the appraisal process.

The Bank can contribute much to closing the gaps in knowledge through its analytical work, through its appraisal process, and through ensuring that client countries undertake rigorous monitoring and evaluation of their strategies to strengthen health systems and health financing.
(Chapters 5 and 6 describe the challenges and highlight areas where analysis is required.)

**Conclusion**

Because poor health, malnutrition, and high fertility perpetuate poverty, and because the MDGs incorporate health, nutrition, and population outcomes, the World Bank has a vested interest in improving health, nutrition, and population outcomes among the poor. However, no simple formulas exist for improving outcomes or organizing and financing health systems to best contribute to those improvements.

The Bank needs to make strategic choices in determining where to focus its limited staff and operating budget in addressing the many determinants of outcomes. It is extremely difficult to reach agreement within the Bank on what the institution should *not* try to do regarding health, nutrition, and population in Sub-Saharan Africa. The immense scale and scope of the needs in the region can compel staff and management to take on a seemingly infinite list of issues: household behavior, community-based interventions, quality of care, medical education, disease control, surveillance, health information systems, and so on. However, to have an impact, the Bank should resist the urge to become engaged in areas outside its comparative advantage, however compelling. The Bank has a comparative advantage in relation to the many development assistance agencies working in Sub-Saharan Africa’s health sector and should focus its knowledge transfer, policy advice, and analytical, appraisal, monitoring, and evaluation abilities on:

- Influencing macroeconomic and fiscal policy as it relates to health, nutrition, and population (chapter 3).
- Ensuring that policies and investments outside of the health sector have a positive impact upon health outcomes (chapter 4).
- Helping client countries develop effective service delivery systems (chapter 5).
- Ensuring that resources are effectively mobilized and are employed in ways that achieve the greatest impact and protect households from impoverishment due to illness (chapter 6).
3

Improving Health, Nutrition, and Population Outcomes through Economic and Fiscal Policy

The share of public spending allocated to health, and the way poverty reduction strategies address health, nutrition, and population, suggest that decisionmakers often do not appreciate that better health and nutrition and lower fertility can reduce poverty. Without better policies, resource allocations, and implementation efforts, increasing health expenditures will not improve health outcomes for the poor, and debt relief will not reduce poverty.

The health sector would benefit from working more closely with central ministries on decentralization, civil service reform, taxation, and financial management. Sector-specific knowledge and policy advice will be required to develop policy frameworks, inform agendas for reform, and monitor implementation, in order to ensure that economic and fiscal policy, public sector reform, and civil service reform have an impact on the Millennium Development Goals (MDGs).
The Bank can help to ensure that public expenditure recognizes the role of health, nutrition, and population in poverty reduction

The Bank should ensure that the priority accorded to health, nutrition, and population in public expenditure programs and poverty reduction strategies is commensurate with the role these factors play in poverty reduction. The relationship between health and poverty reduction is complex and often indirect, but the share of public expenditure allocated to health, nutrition, and population in Sub-Saharan Africa today does not recognize the role of these services in reducing poverty.

African governments receive very little tax revenue compared with governments in other low-income regions, and tend to allocate less to the social sectors, particularly health. Despite the benefits of investing in health, most Sub-Saharan governments spend less than US$8 per capita and less than 10 percent of public expenditure on health, nutrition, and population activities. Of the 47 Sub-Saharan countries for which data were available for 2000, 14 spent 6 percent or less of their total government budget on health, and only 18 spent more than 10 percent (WHO 2002e).¹ One of the working groups for the WHO Commission on Macroeconomics and Health noted that:

Several recent reviews of experience with projects and programmes to support sectorwide reform note continuing gaps between the content of health policy (a relatively strong suit in the design of most sectorwide approaches) and the larger planning and budgeting framework for resource mobilization at the country level. (WHO Commission on Macroeconomics and Health 2002b, p. 38)

Facing tough decisions in times of economic crisis and reform in the 1980s and 1990s, countries made different choices for investing in the social sectors. Some increased their share of spending on health, while many others maintained low or decreasing shares. Average public allocations to health in Sub-Saharan Africa increased only slightly, from 5 percent of government expenditures in the early 1980s to about 6.5 percent by 2000 (figure 3.1).² Most government spending on health is thus no more than 4 percent of GDP (WHO 2002e).

Even in countries that have allocated a higher share to health, real per capita spending has been stable or even decreased due to population...
growth, the depreciation of local currency, and declining public budgets. In 2000 per capita government health expenditure (at average exchange rates) was US$4 or less in a quarter of all African countries (WHO 2002e).³

Despite the very large number of donors in the sector, donor assistance for health represents only 7–10 percent of official development assistance and 2 percent or less of total health expenditures in developing countries. Also, donor assistance has often been more effective in expanding services than in improving their effectiveness. It has financed capital improvements such as construction, equipment, vehicles, and the training of medical staff, but not many recurrent costs such as salaries and incentives for physicians and nurses, drugs and medical supplies, or transport and operating costs. At the same time, external funding for health investment may have adversely affected much-needed spending on recurrent costs, as ministries of finance perceive that donor attention benefits the health sector more than other sectors and reallocate resources accordingly. The result in much of Sub-Saharan Africa: despite the unmet needs for services, health infrastructure and equipment remain underused, and items such as drugs are badly underfunded.

It appears that many of the same decisionmakers and advisors—both at the country level and in the Bank, IMF, and other development agencies—believe that promoting economic growth alone will produce improvements in health outcomes. Some also believe that market forces alone should lead to socially optimal results with households wisely
investing in their own health, and that public sector action in health could stifle an appropriate market response.

Public spending on health is particularly important in Sub-Saharan Africa because of the poor’s inability to pay for health care, and because insurance and other risk-sharing approaches to financing catastrophic costs are generally not available. Even wealthier African households cannot afford catastrophic care. Without an insurance market, private for-profit providers are generally limited to the provision of simple clinical services to urban populations who can pay out of pocket. For the foreseeable future, public expenditure will function as insurance for both rich and poor households in a region where neither social insurance nor private insurance is generally accessible.

Perhaps more importantly, individuals and households do not demand many of the interventions that will affect Sub-Saharan Africa’s burden of disease: immunizations, information on HIV transmission, diagnosis and treatment of sexually transmitted diseases, vector control against malaria and other parasitic diseases, complete treatment for tuberculosis, antenatal care, or the provision of micronutrient supplements. All are crucial health interventions for which demand will remain low, even with economic growth, because even wealthy and highly educated populations do not value preventive health services. Without effective demand, little or no private sector and market provision will materialize, making sustained public expenditure on these activities crucial to improving health, nutrition, and population outcomes and reaching the MDGs.

The HIPC Initiative could increase domestic resources for health in many countries

Debt relief under the HIPC Initiative provides important opportunities to address some of the constraints on better performance in the health sector. By May 2002, US$2.26 billion had been committed to 23 Sub-Saharan countries, with US$1.36 billion disbursed (IMF 2003). HIPC resources are contingent on increased allocations to the social sectors. The 18 heavily indebted poor African countries initially approved for the HIPC Initiative were expected to increase their social expenditures from 4.4 percent of GDP in 1999 to an average of 5.1 percent in 2002, from 29.6 percent of government revenue to about 32.4 percent (Tan, Soucat, and Mingat 2001).

As a result of the HIPC Initiative, Cameroon, Ethiopia, Madagascar, Sierra Leone, Tanzania, and Uganda experienced increases in their social...
expenditure budgets overall and in their health budgets (table 3.1). For example, Uganda’s spending on primary health care through its Poverty Action Fund increased almost fivefold in 1998/99 and 1999/2000 over 1997/98 (USAID 2001). In Burkina Faso, HIPC resources financed new health infrastructure in 2001, including 7 clinics, 39 maternity facilities, and 36 essential generic drug depots (Burkina Faso 2002). For others, however, the potential benefit of HIPC on public expenditure may be undermined by poor economic conditions, as in Zambia (IMF 2002).

Observers have also expressed concern that recipient governments may allocate less than anticipated to health and redirect funds to other sectors. Finance and treasury officials in some countries (for example, Mauritania and Mali) divert funds because they see slow project implementation and conclude that the health sector is overfunded and lacks strategies and the capacity to absorb additional external funds (World Bank 2001d).

Compounding this problem is the political inclination of many African governments to use HIPC increases for health on highly visible projects that can absorb the resources quickly (making treasury officials happy), but have little or no impact on overall health status (for instance, state-of-the-art cardiology centers, diabetes hospitals, invasive radiology clinics, or a new neurosciences institute at the university). In 2000 Mauritania invested most of its additional allocation into equipment for its tertiary hospital. Senegal allocated HIPC funds to build a secondary hospital, although the Ministry of Health had proposed allocating the funds to meet the recurrent cost requirements of enabling the existing primary level infrastructure to deliver services (World Bank 2003b).

<table>
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<tr>
<th>Table 3.1 The public resources available for health following debt relief “decision points” increased in selected heavily indebted poor countries</th>
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<td><strong>Potential increase in health budget (%)</strong></td>
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Source: Soucat 2002.
The long-term impact of allocations to such projects is often worse than the short-term effects because they claim significant maintenance expenditures that displace cost-effective and much-needed allocations for health care to rural and poor populations. In other words, the opportunity costs of misguided HIPC health allocations can be huge, and these allocations can actually be counterproductive to improvement of the overall health status of the country concerned. To combat these tendencies, Bank health specialists, in close conjunction with their colleagues from partner agencies, may need to invoke the assistance of their management and macroeconomic colleagues in their country dialogue.

**Poverty reduction strategies can facilitate dialogue on the role of health, nutrition, and population in poverty**

Poverty Reduction Strategy Papers (PRSPs) outline a country’s policies for driving pro-poor growth and development (IMF and IDA 2003). They define the framework for broad policy reforms, the directions for future public spending, and the potential support from grants and loans.

The World Bank’s Poverty Reduction Support Credits (PRSCs) are intended to directly support a country’s PRSP. The IMF is supporting fiscal and budgetary policies linked to the poverty reduction strategies of African countries. Development assistance partners providing important levels of budget support to African countries, such as the European Union, are also placing their sector dialogue in Africa within a larger development framework, abandoning the earmarking of funds for specific activities. The combination of PRSPs and debt relief (HIPC) allows the Bank to place social sector issues—particularly health, nutrition, and population—at the core of its dialogue with countries on their development agenda. Social sector development can thus be at the forefront of external support discussion through the Bank and IMF Joint Staff Appraisal of the PRSP. Early experience suggests that PRSPs offer both a new approach to development and great opportunities for bringing it about. This movement toward a broader, more systemic approach may create implementation and monitoring challenges for government and development agency staff accustomed to working through subsector projects to improve health, nutrition, and population outcomes.

The initial set of PRSPs highlights the importance of improving health outcomes, particularly the mortality of children and women, as well as decreasing the burden of communicable diseases, particularly malaria.
and HIV. In addition, many countries (such as Burkina Faso, Mauritania, and Uganda) have recognized the role of the health sector in protecting the poor from impoverishment. Some of these countries also emphasize the importance of a poverty and health strategy that increases empowerment by focusing on users’ and communities’ participation, emphasizing the health sector’s demand side rather than the supply side. This includes options to direct financial subsidies to individuals, families, and local communities to pay for health care—for example, through voucher schemes or conditional cash transfers (box 3.1).

**Box 3.1 Conditional cash transfers improve health and nutrition**

Conditional cash transfers, implemented mainly in the Latin America region (Mexico, Brazil, Jamaica, Colombia, Honduras, and Nicaragua), have now spread to other parts of the world, including Turkey and Bangladesh. First attempted in Mexico in the wake of the crisis in 1995, the program transferred money directly to families on the condition that family members went for health check-ups, mothers went to hygiene and nutrition information sessions, and children attended school. Independent evaluations by the International Food Policy Research Institute found dramatically lower incidence of childhood illness, less malnutrition, and better school retention. Figure 3.2 shows the impact of the Mexican PROGRESA program on the incidence of illness in children 0–2 and 3–5 years old.

Because many of the Latin American programs reached the poor in remote rural areas, a similar mechanism might be useful in Sub-Saharan Africa, though transfers of food or vouchers might be more practical than cash there. As with the first attempts in Latin America, any attempts would need to be evaluated rigorously to ensure political credibility and practical feasibility.

**Figure 3.2 The incidence of illness was lower among children enrolled in PROGRESA**

![Graph showing the incidence of illness](image_url)

Source: Gertler 2000.
Many (and possibly most) PRSPs have not provided the evidence to justify many of the health strategies they describe (Dodd and Hinshaw 2002). Most PRSPs acknowledge that improving health is important in reducing poverty, but this understanding is rarely reflected in the ensuing program of action. While most link poverty to ill health, they describe ill health as a consequence of poverty rather than a cause, and refer to health not as an investment in producing human resources and economic growth, but as an obligation for the public sector. They tend to promote the status quo in a government’s health program, rather than reevaluate programs to ensure that they are indeed pro-poor.

Few PRSPs make the key links between health and economic growth—such as that between health status and worker productivity. Few discuss the impoverishing effects of health problems, especially out-of-pocket spending for health emergencies. Mozambique alone has recognized human development, including health, as a prime engine of its growth strategy, taking health outside the basic services niche and placing it—at the heart of the development agenda.

Understanding the two-way relationship between poverty and health is crucial to effective policymaking and to designing interventions. “The gap in analysis is particularly striking as many PRSPs contain the results of a participatory poverty assessment in which poor people themselves identify ill health as a cause of poverty” (WHO 2001b). The Bank and other partners can help to ensure that health is more appropriately addressed within the PRSP framework (box 3.2).

**Box 3.2 What is required to more effectively address health in PRSPs?**

- The PRSP process must undergo a conceptual change and understand health’s contribution to development.
- Ministries of Health need to be included and active in the PRSP process.
- Health programs must be adequately and equitably financed.
- The monitoring of health-related financial data needs to improve (including government and private expenditures and donor transfers); proceeds of debt relief must add to the flow of bilateral and multilateral assistance, not crowd out or replace official development assistance or previous budget allocations.
- Health outcomes should not be literally equated with health services inputs and outputs, and PRSPs should include monitoring and evaluation plans that measure outcomes for both the poor and the non-poor.
- More detailed analysis of the rationales for pro-poor strategies must be done in order to provide more specific guidance on methods of implementation. Sector-wide approaches for health (SWAPs) and PRSPs must be synchronized, with plans for PRSP implementation grounded in the sector-wide programming of the health sector.
A rapid review of early PRSPs highlights several challenges in the process (WHO 2001b). Too many were donor driven, and many were rushed in order to obtain the debt relief contingent upon them, without consideration of the time needed to secure full country ownership. In many countries, consultation was limited to a small group based in one of the key ministries (finance or planning), without seeking the views of parliament, the private sector, or, most important, poor people. Anecdotal evidence suggests that ownership is improving with the second round of PRSPs.

To be useful, PRSPs must be fiscally responsible and not wish lists. Rarely does a PRSP present a convincing case that additional money will accrue to the health sector in the post-PRSP period. It appears that many countries drafted the health components of their PRSPs based on their existing health plans, without any accompanying evidence that the interventions outlined would actually reach the poor. Few PRSPs include specific and measurable goals and targets for improving the health status of poorer groups, and few include plans for monitoring the impact of strategies on the health of the poor versus the non-poor. Yet, as noted in the previous chapter, improvements in national averages can mask declines among the poor. Other common omissions include health sector governance issues; cost recovery; the impact of decentralization on health services; the role of the private sector (often the main providers for the poor); financial barriers to seeking care; and the impoverishing effect of illness.

**Improved health outcomes and reduced poverty require more effective policies, implementation, and resource allocation within the sector**

Without better policies and more effective resource allocation and implementation, increased health expenditures will not improve health outcomes for the poor and debt relief will not reduce poverty. Assumptions about public expenditure and publicly financed health services have often proven incorrect. Bank staff need to appreciate how spending is allocated within the sector and to work with clients to monitor the impact of spending on health outcomes, particularly among the poor.
Increased spending or economic growth alone will not improve health outcomes

In Sub-Saharan Africa, as in the rest of the world, health outcomes are related to income and to spending, but the correlation is not perfectly linear. Ghana has been performing significantly better than Côte d’Ivoire despite its lower income, and Madagascar better than Malawi (figure 3.3). These examples highlight the complexity of the relationship between financial inputs and health outcomes. In poorly performing countries, pouring additional resources—such as HIPC—into existing health and education systems is unlikely to produce the desired results. Improving health outcomes among the poor will require significant

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**Figure 3.3 Public spending on health correlates with under-five mortality rates**

improvements in allocation methods and technical efficiency, as well as more effective targeting of services. Policy reforms and strategies to resolve constraints on effective service delivery will be required to convert expenditures to outcomes (Musgrove 1996).

African economies have responded to improvements in economic policies, but the continent has not done well at turning income growth into improved welfare indicators (White and others 2001). The Bank’s Development Economics Group finds that higher health expenditures do not necessarily translate into better health outcomes for the poor (Filmer, Hammer, and Pritchett 2000). Worse, in many countries higher health expenditures actually correlate with poorer health outcomes (figure 3.4). This phenomenon is partly due to the fact that the highest income

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**Figure 3.4 Higher expenditures on health do not always result in better health outcomes**

![Figure 3.4 Higher expenditures on health do not always result in better health outcomes](source: World Bank 2003h.)
quintiles capture the additional health funding, and this results in a more than proportional negative effect on health expenditures for the lowest income quintiles. At the same time, though, the Bank’s 2004 World Development Report (World Bank 2003h) highlights that targeted government spending on health care can be associated with reductions in child mortality (as in Iran, Costa Rica, and Cuba).

**Better intrasector allocations can improve the impact of public expenditures**

Each country will require individual support to get the most from new resources and new development approaches. No formulas or simple ratios (such as salary/nonsalary, primary/tertiary, recurrent/investment) will allow the IMF or macroeconomists in the Bank to assess whether health expenditures are allocated and disbursed in the manner that will best reduce morbidity and mortality, or whether such intrasector allocations are pro-poor. Moreover, reallocating expenditures within the sector is not a simple budget exercise.

Conditions or triggers on allocations of public expenditure, as incorporated in many Bank structural adjustment and investment loans and more recently in adaptable program loans, can have the wrong effect because of weak budget and accounting systems, a lack of knowledge about public expenditures, and poor appreciation of the real constraints facing many African governments. A budget overrun by the tertiary hospital, a nurses’ strike, or a civil service’s decision to raise salaries must be financed; there is little political choice, even if meeting the financial demands of such situations means reallocating funds originally set aside to procure drugs or maintain facilities as agreed when conditions for external funding were crafted.

A large proportion of public expenditures on health, sometimes as much as 60 percent, is still allocated to national teaching hospitals in capital cities, which tend to serve the rich disproportionately and provide less cost-effective services. Reallocating resources from tertiary care to primary care has been a common ambition, but doing so is not simple, and such reallocation generally will not occur unless alternative sources of financing for tertiary care are found. National teaching hospitals are always protected politically; reducing their budgets in order to increase those of primary facilities can result in shortages that are very visible because of the hospitals’ location in the capital city. Many national
referral hospitals also serve as teaching centers or national laboratories, and some deliver primary care (albeit not efficiently) to local populations. Closing or downsizing these institutions is politically and socially feasible only in the most unlikely circumstances. Conditions and triggers may be helpful in holding governments accountable to commitments, but specific experience and knowledge of the situation are required to prevent naïveté in the design of such conditions.

Serious regional disparities in the allocation of public expenditures for health persist in some countries, such as Mozambique, Kenya, Niger, Guinea, and Cameroon, although Malawi and Tanzania have made improvements. In many African countries, an overwhelming majority of health workers—sometimes as many as 90 percent of physicians, nurses, and other essential health workers—is concentrated in a few urban centers (figure 3.5). This urban bias and the district or provincial imbalances in health services, as reflected in health expenditures, are

**Figure 3.5  Few nursing staff are in rural areas**

![Bar chart showing nurse population per 10,000 people in rural and urban areas of Nicaragua, Bangladesh, and Tanzania.](source: Kurowski 2003.)
rooted in a variety of factors, especially the preference for supporting existing hospitals, clinics, institutes, and medical and nursing schools rather than responding to unmet needs. To improve expenditure patterns, many sector-specific issues need to be better understood.

**Not all spending on health, nutrition, and population is pro-poor**

Reallocating funds between levels of care, though necessary, is not enough. For instance, despite some successful efforts to channel resources to primary care, the access to maternal and child health and reproductive health services remains much lower among the poorest income quintiles, as well as in rural areas, in all African countries but one (Chad). Inequitable coverage of some key health, nutrition, and population interventions appears to be greater in Sub-Saharan Africa than in other regions. The rich-poor immunization gap, for example, is higher in Sub-Saharan Africa than in Latin America, despite the fact that immunization in Africa is publicly provided, exempt from user fees, and a focal point for outreach services (Gwatkin and others 2000).

Although primary care facilities benefit the poor in Africa more than tertiary facilities do, large shares of public spending on curative health services systematically favor the better off. Benefit-incidence analyses repeatedly demonstrate that publicly financed health services at all levels of care benefit the rich more than the poor. A review of available information on the benefit incidence of public spending on health in Africa (seven countries) conducted in 2000 suggests that public health spending in Africa is even less equitable than elsewhere (Castro-Leal and others 2000). In Vietnam, Indonesia, and India, hospital care, as anticipated, is used more by higher income groups, while primary care is strongly pro-poor. However, many African countries seem to exhibit the same pro-rich bias for both hospital and primary care. Among seven African countries reviewed, only Kenya, and to some extent Tanzania, exhibited a pro-poor pattern of primary service use. In the five other countries (Guinea, Ghana, Côte d’Ivoire, Madagascar, and South Africa) hospital care disproportionately benefited the better off, and primary care was also used by the richest income quintiles more than by the poor, though not to the same degree. Therefore, budget reallocations toward primary care might be an effective pro-poor strategy in Kenya and Tanzania, but not in Guinea, Ghana, Côte d’Ivoire, Madagascar, or South Africa.
Increasing use by the poor requires addressing the obstacles the poor face in using services. Additional strategies to address affordability, use, demand, perceptions of quality, distribution, gender attitudes of staff, medical supplies, and infrastructure, as well as the role of non–public sector facilities, will be necessary to improve health outcomes for the poor.

Health strategies that will reduce poverty must be distinguished from those that will respond to the needs of the poor(est); these are overlapping, but different, objectives (Dodd and Hinshelwood 2002). Most PRSPs promote the former at best. PRSP drafts so far show little focus on either targeted or focused pro-poor services, which poses the risk that debt relief will support existing expenditure patterns and will not benefit the poor. Improving health outcomes in Sub-Saharan Africa will require the development and support of targeted social sector policies to accompany growth in income. Progress toward the MDGs could be achieved either through a pattern that primarily benefits the better off while largely bypassing the poor, or through strategies that focus on gains by the poor, reducing poor-rich differences (Gwatkin 2002). There is thus a strong case for modifying the way health and poverty goals are defined in order to focus policies, strategies, and investments on resolving conditions prevalent among the poor. If countries were encouraged to stratify measurements by income and residence, this could help refocus the attention of health and development planners on the needs of the disadvantaged.

The health sector could benefit from working more closely with central ministries

Over the last 10 years, efforts at revitalizing health sectors in Africa have been based mainly on broad sector strategic frameworks, supported by international donors through sector-wide approaches. These approaches have produced positive results in defining national policies and strategies, elaborating national health development plans, and increasing the coordination of donors in countries such as Ethiopia, Ghana, Mali, Sierra Leone, Tanzania, and Zambia. However, the policy dialogue within sector-wide approaches often remains limited to the country’s ministry of health, which alone is unable to tackle many of the systemic constraints on improving service delivery and health outcomes.

Weak budgeting and financial management systems and a lack of financial information remain key constraints on defining effective strate-
gies in the health sector. Budget and financial management, as much as budget allocations, can directly affect the performance of the public health care system. Yet decisions by the treasury or the ministry of finance on budget structures, financial management, and disbursement generally do not take sector-specific requirements or perspectives into account.

For instance, a particular challenge for the health sector in many African countries is the procurement of pharmaceuticals, vaccines, and medical supplies, most produced outside Africa and thus requiring foreign exchange. While the typical budgeting process involves monthly releases in local currency, procuring pharmaceuticals through international competitive bidding requires access by the ministry of health to large amounts of foreign exchange at the beginning of the fiscal year. When the ministry of health does not have such access, it must make multiple small purchases on the local wholesale market, often at very high costs, rather than purchasing in bulk through international competitive bidding at a lower cost.

Financial information can also ensure that centrally defined systems support decisionmaking within the health sector. Hospital budgets should be organized and expenditures tracked in ways that allow managers to compare the performance of various clinical departments and diagnostic and treatment services. Similarly, planners need to know the consumption patterns for drugs and supplies at different levels of the system. Use of inappropriate cost centers or adherence to out-of-date reporting formats—often required and standardized by central ministries—does not support more efficient management of the health sector.

Fiscal decentralization can significantly improve the responsiveness of the health sector, but to be effective it requires regular and reliable flows of funds, financial management capacity, and the decentralization of financial authority and decisionmaking. In most Sub-Saharan countries these elements are still lacking, and this lack has created an increasing impediment to implementing effective programs that specifically address the health needs of the rural poor. Various aid programs across Africa illustrate how fiscal and budget implementation systems that are averse to decentralized options prevent assistance from reaching the poor and indirectly favor urban and upper-income populations.

Decentralization must be implemented carefully. Specialized functions and budgets such as blood banks, medical schools, and infectious disease surveillance should remain centralized, and centralized functions such as procuring pharmaceuticals and medical equipment
enable economies of scale that cannot be achieved by an individual district. Decentralization efforts such as those in Uganda, Senegal, and Burkina Faso may also be carried out without consideration of the specific need for some level of central authority on the financing and provision of public goods.

Decentralization can also result in fewer resources for essential health services if local government decisionmakers do not set priorities for health over other local demands. It can result in poor planning and budgeting if local staff are not trained and oriented to the needs of the sector, to national standards in service delivery, and to costs. Dialogue between the sector and the ministry can help ensure that critical health, nutrition, and population functions are well managed under decentralization and that decisions on resource allocation consider health needs. In Tanzania, for example, the ministry of health and the local government have worked together within a sector-wide program to ensure that decentralized planning systems, financing procedures, and resource allocations are informed by a sector perspective. The revised resource allocation formula takes health indicators into account.

Ministries of health can also achieve greater impact through collaboration on trade, import, and tax issues that affect their sector. Some countries have reduced or eliminated taxes and tariffs on health-related commodities such as drugs, vaccines, contraceptives, and insecticide-treated bed nets (box 3.3). Duties on imports of pharmaceutical and medical supplies or medical equipment by NGOs are another area where collaboration between the health sector and central ministries can be important.

Discouraging smoking by increasing cigarette prices is an example of the effect of tax policies on health outcomes (figure 3.7). The evidence suggests that demand for tobacco in Sub-Saharan Africa is highly elastic to price, so price increases should be particularly effective in reducing consumption. A 10 percent price increase leads to an estimated 8 percent reduction in cigarette consumption in low and middle-income countries (Jha and Chaloupka 1999). Increasing cigarette taxes has both public health and fiscal benefits, and cigarette prices could be raised significantly in Sub-Saharan Africa.

Generally, the prevalence of smoking is still lower in Africa than in other developing regions: 20 percent of men smoked in Malawi in 1996, and 15 percent in Nigeria in 1998. If African governments act now they can prevent the smoking epidemic that is causing disease and death elsewhere.
Box 3.3 Reducing taxes and tariffs on insecticide-treated bednets: How fiscal policy can affect health outcomes

Insecticide-treated bednets are a low-cost, proven, and practical tool to prevent malaria. If used properly, they can cut mortality due to malaria by a third. However, fewer than 10 percent of African children and pregnant women are sleeping under treated nets because of the cost. The World Bank, working as part of the Roll Back Malaria Global Partnership, has helped bring together the health and finance sectors to reduce taxes and tariffs on bed nets, netting material, and insecticide (figure 3.6). In Senegal and Tanzania the Bank was able to demonstrate to the Ministry of Finance that taxes and tariffs provided a significant barrier to scaling up the use of bednets and were bringing in very little revenue to the government (Simon and others 2001).

Figure 3.6 A number of African countries have reduced or waived taxes and tariffs on bednets, netting material, and insecticide

Empirical evidence suggests that the health sector and the fiscal sector have a common interest in taxing tobacco, since nearly all politically conceivable increases in tobacco taxes will generate increased revenues and provide a disincentive to smoking in most countries (Warner 2000). However, the goals of the two sectors differ: for the fiscal sector the goal is to maximize tax revenue, while for the health sector the goal is to minimize the number of smokers.

Actors working in the health sector need to understand where and how such fiscal decisions are made and how to influence them with cost-benefit and other economic information. World Bank staff are, in principle, in a position to assist in such efforts.

**Health sector expertise can help ensure that economic and fiscal policy contributes to health outcomes**

The role of the World Bank in health, nutrition, and population cannot be reduced to resource transfers alone. Policy advice, knowledge transfer, and monitoring remain critical and require sector expertise. As discussed above, early experience with debt relief under the HIPC Initiative shows that government decisions may not always be informed by sector analysis.
or reflect stated commitments to reduce poverty. Several HIPC countries have used the initial proceeds of debt relief to invest in hospitals or high-tech treatment for higher-income groups.

Coordinating sudden large increases in resources with the expansion of capacity is delicate. Health specialists can work with the Bank’s country economists to ensure that programs anticipate and deal adequately with potential problems. While a portion of the resources should be used to build public sector capacity over the long term, improved short-term capacity will be required to manage the influx of resources. In many cases, health specialists can work with the ministry of health to outsource central government responsibilities to a variety of local government or nongovernment parties, including private sector institutions and contractors. Such approaches are increasingly accepted in Sub-Saharan Africa.

Even if strategies and expenditure programs build on global knowledge and experience and appear to maximize both public and private sector capacity to improve health outcomes among the poor, implementation will have to be closely monitored. Experience with sector-wide health programs has demonstrated the importance of monitoring activities, processes, expenditures, and impacts to ensure accountability for stated aims. In many cases, monitoring by the government, working with World Bank health specialists and other partners, can ensure that obstacles are readily addressed and facilitate dialogue with external financiers when unintended results call for revisions in strategy.

Unsustainable ratios of investment to recurrent cost are often found in Sub-Saharan Africa, due to the ready availability of donor funding for investment (in, for example, a rural health clinic or training in malaria case management). Although significant investment is necessary to achieve development goals, these ratios are considerably worse than they are in middle-income countries. The lack of staff and operating funds for many facilities suggests that governments have overextended their health facility networks relative to what they can afford. A closer working relationship between individuals advising the government on public expenditure and investment programs and those with in-depth knowledge of the health sector could ensure that ministries of health and finance are fully informed when considering new investment.

Medium-term expenditure frameworks can help address concerns in the distribution of the budget between investment and recurrent costs, and can ensure that sector specialists and macroeconomists work
together. Unsustainable investment continues to be a glaring problem in much of Sub-Saharan Africa’s health sector. It has often proceeded without an appreciation of the recurrent cost implications or an appraisal of government’s ability to afford such costs in the future. Hospitals may be built without full appreciation of the required personnel, operating, and maintenance costs. Analytical efforts often lack economic and fiscal expertise, and the ministry of health’s reassuring response that such costs will be accommodated is routinely accepted. For example, Bank-supported investment operations suggest that the responsible Bank staff (task managers/task team leaders) do not critically assess the government’s long-term financial, procedural, and human capacity to support statements of commitment to supply staff, drugs, or materials to support newly constructed health facilities.

Nor is all investment accounted for in national development programs. In many countries, the health sector receives donations or supports projects without the central ministries having oversight or even being aware of special agreements between a donor and a district, hospital, or local community. The Bank can better assist client countries to prepare pro-poor, medium-term expenditure frameworks (MTEFs) based on a careful, analytical strategic planning process in which health and finance expertise work hand in hand.

Valid concerns about a country’s budget balance have often been addressed with too little attention to the health sector. For example, fiscal discipline has often focused on the wage bill and reducing its burden on the budget, while budget increases have been channeled into investments and nonsalary recurrent costs. Generalized salary to nonsalary ratios are not appropriate: caps on payroll expenditures need to be addressed differently in the social sectors than they are in agriculture, civil works, industry, or energy. Medical professionals and pharmaceuticals are essential elements of health services, and the salaries of specialized medical staff (globally marketable today) are higher than those of senior staff in other sectors, so the wage portion of the expenditure program must be higher than the norm.

Health and education are both labor-intensive services, but in most of Sub-Saharan Africa the wage bill of the health sector is significantly lower than that of the education sector, even though the health sector has a more educated workforce and the market reference point for salaries among health professionals is much higher than it is for education staff. Because physicians, pharmacists, and nurses are in high demand interna-
tionally and African civil service salary scales are not competitive, medical professionals are migrating out of Africa at an unprecedented rate (figure 3.8). Increased resources for salaries available under HIPC and PRSCs, among other measures, could mitigate this if those advising governments on their expenditure programs and pay reform were to work closely with sector specialists.

Early PRSP lessons have highlighted areas that would benefit from greater coordination between IMF and World Bank macroeconomists and World Bank and other agency health specialists (Tan, Soucat, and Mingat 2001):

- Allocating appropriate budgets to the health sector
- Understanding the impact of slow economic growth, political instability, and cultural factors on human development indicators
- Reducing disparities in the allocation of public subsidies for health care by region and income group
- Analyzing the benefit incidence of public spending on health
- Addressing civil service and wage policy constraints that hold back health sector reform
- Highlighting the effects of taxes, tariffs, and pricing policies on pharmaceuticals, medical equipment, and other health consumables
- Reforming budgets, including dimensions of decentralization and performance-based budgeting

![Figure 3.8 High proportions of health workers intend to migrate](image)

Conclusion

Opportunities to improve health, nutrition, and population outcomes among the poor are clearly available through fiscal and economic policy. Taking advantage of these opportunities at the country level will require a sustained dialogue within and among the relevant governments, ministries, and agencies, as well as between governments and their international development partners. Improved operational and policy dialogue at the country level and stronger linkages between the social sectors and central ministries can change the functioning of the health sector. To ensure added value for client countries, this dialogue must be rooted in solid sector knowledge and understanding.

Taking full advantage of opportunities to support national health objectives through macroeconomic instruments and dialogue requires a solid understanding of the health sector—its performance, sources of inefficiencies and inequities, and options for improvement. That understanding, to be shared by the World Bank, the IMF, and the government, should extend beyond simply looking at aggregate spending on health. Constructive health sector analysis includes examining how resources are actually used and managed as well as what is achieved. As a critical first step, analytical work, including public and private sector expenditure reviews and benefit-incidence analysis, is necessary to guide investment in health by government and its partners. To ensure success, Bank staff will need to monitor whether the increased resources provided through debt relief and adjustment lending (in particular, PRSCs) are improving health, nutrition, and population outcomes and attaining the Millennium Development Goals.
Many determinants of health outcomes lie outside the health sector (table 4.1). The World Bank, usually active in many sectors in a country, is considering how to work more effectively across sectors, recognizing the potential synergies of multisector action. As one of the leading health sector partners in Sub-Saharan Africa, the Bank has a unique opportunity to foster multisector action in a way that could improve health, nutrition, and population outcomes among the poor.

This chapter addresses how policies and actions in many other sectors relate to health, nutrition, and population. Every sector can contribute in some way toward achieving the Millennium Development Goals (MDGs) for malnutrition, child mortality, maternal health, and communicable disease. One immediate way to mobilize multisector action is to focus on health impacts in environmental assessments, both to mitigate potential harm and to identify opportunities to address health outcomes.

Work on HIV/AIDS over the past five years shows that the World Bank can foster a multisector response to illness and death among the poor in Sub-Saharan Africa. Malnutrition is a problem that, like HIV/AIDS, could benefit from a cross-sector effort. Actions in infrastructure, water, education, and roads, as well as effective use of taxation and public information, can reduce disability and death due to vector and water-borne disease, maternal and child health problems, injuries, and cancer.
Actions across multiple sectors can affect health, nutrition, and population outcomes

Despite country variations, almost all government agencies have some responsibilities that have potential health consequences (table 4.2). Occasionally these responsibilities encompass health programs for which the ministry of health does not commonly take the lead, such as school health, water quality, food safety, or road safety. Particularly challenging for the health sector are the public programs with potential for either extensive negative health consequences (for example, hydroelectric water
and irrigation schemes that foster parasites that transmit communicable diseases) or unexploited positive health consequences (for example, the provision of electricity to rural villages, which increases healthy behavior) (South Africa Medical Research Council 2003, pp. 35 and 59). In addition to improving health, multisector cooperation can support improvements in the functioning of the health sector. In Uganda, for example, cooperation between the Ministry of Health and the Ministry of

### Table 4.2 Government agencies other than ministries of health have responsibilities that relate to health outcomes

<table>
<thead>
<tr>
<th>Agency</th>
<th>Health concerns</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office of the prime minister</td>
<td>Overall coordination of government policy; responsibility for security concerns of the country and economy as a whole, including AIDS.</td>
</tr>
<tr>
<td>Ministry of finance</td>
<td>Mobilization and allocation of public recurrent budget resources for health; cooperation with ministry of health and ministry of planning on health finance strategies; customs enforcement; pricing health services; civil service policies and operations; alcohol and tobacco taxes; overall responsibility for insurance regulation.</td>
</tr>
<tr>
<td>Ministry of planning</td>
<td>Programming and financing of public investment in health; coordination of government policies and procedures on information and information systems, including household surveys; gender policies and programs with ministry of women's affairs; distributional dimensions of public resource allocation; poverty policy and income distribution; nutrition policy, with ministry of agriculture and ministry of health.</td>
</tr>
<tr>
<td>Ministry of labor</td>
<td>Occupational health standards; advocacy of labor-intensive development strategies and macroeconomic policies; promotion of female employment policies (with ministry of women's affairs).</td>
</tr>
<tr>
<td>Ministry of public service</td>
<td>Salaries of health staff, deployment, staff development, incentives, migration (brain drain) issues.</td>
</tr>
<tr>
<td>Ministry of social welfare, youth and sports</td>
<td>Financing and execution of social welfare programs; regulation of health insurance and welfare subsidies to the sick (with ministry of finance); youth and sports programs; orphans from AIDS.</td>
</tr>
<tr>
<td>Ministry of education</td>
<td>Education of AIDS orphans; education of women; tertiary education of health care providers (oversight of medical schools); school health education and services (with ministry of health).</td>
</tr>
<tr>
<td>Ministry of environment</td>
<td>Environmental health standards, regulation, assessment and enforcement; regulation of pesticides.</td>
</tr>
<tr>
<td>Ministry of agriculture</td>
<td>Food and nutrition standards and programs (with ministry of health); food inspection; tobacco production regulation; mitigating health consequences of irrigation.</td>
</tr>
<tr>
<td>Ministry of works and transportation</td>
<td>Water supply and sanitation; road safety; reduction of vector breeding sites.</td>
</tr>
<tr>
<td>Ministry of energy</td>
<td>Indoor and outdoor air pollution; hydroelectric and reservoir construction that creates large infectious disease breeding sites.</td>
</tr>
<tr>
<td>Ministry of interior and local government</td>
<td>Health dialogue with local authorities; management of decentralized health facilities; registration and regulation of domestic civil society organizations (in cooperation with ministry of health and other ministerial departments concerned).</td>
</tr>
<tr>
<td>Ministry of trade, commerce and industry</td>
<td>Tariff levels on pharmaceuticals and other imported health products (such as bednets); drug prices; trade policies and practices; tobacco and alcohol prices; stimulation and regulation of local pharmaceutical production; local medical equipment production.</td>
</tr>
<tr>
<td>Ministry of women's affairs</td>
<td>Gender strategy and programs (with ministries of planning, labor, and education).</td>
</tr>
<tr>
<td>Ministry of defense</td>
<td>Health of military personnel (especially AIDS); use and sometimes regulation of military medical facilities; employment of medical personnel.</td>
</tr>
<tr>
<td>Ministry of foreign affairs</td>
<td>Coordination of government policy affecting international health organizations and the World Trade Organization (drug patent rights); registration of international NGOs.</td>
</tr>
<tr>
<td>Ministry of justice</td>
<td>Pharmaceutical counterfeiting; medical profession regulation (autonomy); malpractice; pharmaceutical patents and licensing; illegal drug use and trade; international treaties on health.</td>
</tr>
</tbody>
</table>

Source: Adapted from Lvovsky 2001.
Energy determined that access to electricity would make possible better water pumps, more communication through radio, more effective vaccine storage, and improved sterilization practices.

While there is much scope for better interaction across all ministries, selectivity requires focusing on areas promising the greatest impact. These include HIV/AIDS, nutrition, malaria and other vector-borne diseases, water supply and sanitation, school health, road safety, energy provision, and tobacco.

**Environmental impact assessments provide a platform for considering the health impact of development initiatives**

More than 20 percent of Sub-Saharan Africa’s burden of disease may be attributable to environmental health problems (figures 4.1 and 4.2) (Listorti and Doumani 2001). Traditional environmental health hazards, such as water-related and vector-related diseases, air pollution, and injuries, have a greater impact than modern environmental hazards. Furthermore, the share of the avoidable environmental health burden tends to be greatest among the poor.

The Bank’s environment strategy gives particular attention to environmental health. It promotes increasing knowledge of environmental health problems, including the health-related components of development undertakings such as mining and hydroelectric projects. It supports measuring development impact holistically in order to focus on potential health

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**Figure 4.1 The environment-related burden of disease is high in Sub-Saharan Africa**

- Environment-related disease or injury: 20%
- HIV/AIDS: 17%
- Other disease or injury: 63%

improvements (Lvovsky 2001). The environmental assessments required for all Bank-financed investment projects also offer an opportunity to consider the potential impact on health outcomes. Some regional development banks promote health impact assessments separately from environmental assessments (WHO 2004b). Within the World Bank, health specialists would need to work with other sector specialists in order to incorporate health impact assessments into the environmental assessment framework and to devise strategies for mitigating risk and exploiting potential benefits.

Such an approach has been taken with respect to HIV/AIDS: all of the Bank’s projects in Sub-Saharan Africa—across all sectors—have been challenged to identify how they might contribute to reducing HIV/AIDS. Such an approach, applied more broadly, could greatly enhance the extent to which Bank-supported investments contribute to reaching the MDGs in Sub-Saharan Africa. Work under way on universal access projects for the provision of rural water supply, sanitation, energy, and telecommunications—in Mauritania, for example—offers a possible entry point for multisector cooperation to improve health.

**The response to HIV/AIDS sets an example**

The Bank has made an important strategic decision to emphasize multisector action with respect to HIV/AIDS in Africa, and lessons...
applicable to other diseases are beginning to emerge. The responsibility for managing a national, multisector response to HIV/AIDS has been placed outside the ministry of health in many countries because the parameters of health ministries and their lack of authority to propel action in other ministries are seen as insufficient for leading a broader national response to AIDS. Programs have generally been concentrated at the central level, with some special efforts to involve regions and local communities (figure 4.3).

Several countries that have made progress, such as Uganda, have placed the national AIDS coordinating body in the President’s Office, providing the visibility, reach, and authority to coordinate and mobilize all stakeholders. The role of the multisector coordinating body has been to provide strategic guidance and political power, lead institutional and policy reforms, ensure coordination and implementation, and facilitate monitoring and evaluation. Implementation has largely been decentralized to the regional and local levels.

The Bank-supported multicountry and multisector AIDS projects (MAPs) provide support directly to various ministries and to civil society (box 4.1). A project in Kenya demonstrates the approach, allocating 32 percent of the MAP financing specifically to support the government’s expanded multisector response. The MAP’s eligibility criteria underscore the multisector approach:

![Figure 4.3 The Benin multisector AIDS project supports more activities in civil society](image)
Satisfactory evidence of a strategic approach to HIV/AIDS, typically demonstrated by a national multisector strategy and action plan.

- A high-level HIV/AIDS coordinating body.
- Use of appropriate implementation arrangements to accelerate implementation.
- Use and funding of multiple implementation agencies.

The first overall progress review of MAP operations observed that having an agreed-upon strategy was often insufficient to guarantee effective implementation, especially with numerous implementing agencies. This remains a challenge to financing and implementing multisector programs. Although the knowledge base has improved over the past few years, knowledge and best practice of actions outside the health sector that can mitigate the impact of AIDS or reduce transmission of HIV are not yet widely disseminated. Both government and nongovernmental agencies require technical support to mobilize their comparative advantages in responding to HIV/AIDS and to consider how the policies and strategies they undertake can affect national objectives. The same challenge applies to engaging non-health agencies in efforts to reduce the impact of other causes of illness and death.

Ministry of health staff across Sub-Saharan Africa have sometimes resented and been confused by the establishment of multisector programs, particularly when these place overall AIDS coordinating responsibilities outside the sector. There is a consensus that national coordinating bodies and secretariats should recognize the central role of

**Box 4.1 The highway sector in Ethiopia is responding to HIV/AIDS**

The Ethiopian Roads Authority is a public body with a staff of about 20,000. Road workers are separated from their families for several months and thus particularly vulnerable to contracting sexually transmitted diseases such as HIV. In January 2001 the Ethiopian Roads Authority submitted a proposal to the Ethiopia National AIDS Prevention and Control Secretariat for an employee awareness and prevention strategy that included communication activities, free provision of condoms, and access to voluntary counseling and testing services. The proposal was developed jointly with a local NGO and funds were requested to subcontract implementation to the NGO. The proposal was approved and the Ethiopian Roads Authority maintains general oversight over the project’s implementation.
ministries of health, hospitals, and district health staff in supporting the response to the HIV/AIDS epidemic, while expanding the response beyond the sector. The ministry of health is unlikely to be the best qualified agency to improve the status of women, to ensure that orphans are not denied educational opportunities, or to keep family units together in works projects that employ temporary staff. However, it is the locus of knowledge on epidemiology, diagnostics, transmission, treatment, and behavior changes that will affect disease transmission or the progression of illness. Also, because HIV/AIDS was handled in the health sector for more than a decade, much non-health-specific expertise and experience resides in the ministry of health and its specialized partners.

Reducing malnutrition requires multisector action

Malnutrition is the result of insufficient food intake, unhealthy diet, a high disease burden, and inappropriate consumption and feeding practices. It increases vulnerability to all communicable diseases, including HIV, and is by far the largest single risk factor for disease in the world’s total burden of disease (the next largest risk factor, unsafe water and poor sanitation, is associated with less than half the level of risk associated with malnutrition). Africa is the only region where the number and proportion of malnourished children are expected to rise over the next 20 years. Even more disturbing is that a rising trend in malnutrition is associated with assumptions that may be overly optimistic. While crop production in Africa has been increasing, crop yields (production per hectare) are falling behind yields in other regions. Future food shortages would have a significant human toll in the form of increased malnutrition and even starvation. Shortages could also shatter Africa’s net food import bill (table 4.3). According to the International Food Policy Research Institute (IFPRI), reducing the number of malnourished children by one-third by 2020 would require an increase in total investments in roads, irrigation, clean water, education, and agricultural research of US$76 billion to US$183 billion between 1997 and 2020, above what would be projected based on current estimates (Rosegrant and others 2001).

While donors are brainstorming about ways to get antiretroviral treatments to people with AIDS in Africa, many households suffering
from AIDS are saying that what they really want is food. “It’s only recently, I must admit, that I became aware” that hunger was the leading concern among rural Africans with HIV, says UNAIDS director Peter Piot (Schoofs 1999).

Nutrition is a complex, multisector problem without an obvious institutional home, so it often falls through the cracks (ministries of nutrition are extremely rare). Nor is malnutrition a highly visible problem with a clear constituency to demand policies and programs. A recurring theme from the Bank’s publication *Voices of the Poor: Can Anyone Hear Us?* (Narayan and others 2000) is that people cope with difficult times by reducing the quality, quantity, and frequency of meals. “In Nigeria poverty is equated with pre-harvest food insecurity and diets that are monotonous and primarily starch-based . . . in Togo, the poor equate poverty with the inability to work because of the effects of malnourishment” (p. 36). Some countries have national nutrition plans, but they are seldom implemented because of the lack of clear institutional authority and accountability. This is unfortunate, for attacking malnutrition can have quick results (figure 4.4).

The World Bank should include malnutrition issues when discussing economic growth and poverty with national leaders, and should refer specifically to the prevalence of underweight among children under five, the most appropriate indicator of malnutrition and an indicator of poverty in the MDGs. But most development partners agree that underweight (low weight for age), wasting (low weight for height), and stunting (low height for age) should all be monitored (World Bank 2001c). In post-conflict and drought-stricken regions, trends in wasting may also be important to track. In all but emergency situations, underweight is a good proxy for malnutrition.

<table>
<thead>
<tr>
<th>Period</th>
<th>Food imports (millions of US$)</th>
<th>Change in volume of food imports (percent)</th>
<th>Change in food production per capita (indexed at average 1989–91 growth)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1975–1984</td>
<td>3,693</td>
<td>22.1</td>
<td>−1.5</td>
</tr>
<tr>
<td>1985–1989</td>
<td>4,922</td>
<td>−3.3</td>
<td>0.5</td>
</tr>
<tr>
<td>1990–2000</td>
<td>6,606</td>
<td>−0.3</td>
<td>−0.6</td>
</tr>
</tbody>
</table>

*Note: Data for each time period are the annual average of that period.
Bank-supported Early Child Development (ECD) projects provide an opportunity to incorporate nutrition interventions, as has happened in Eritrea, Kenya, and Uganda. The focus on mobilizing the community and household actions required to improve feeding practices, promoted under ECD, can also be supported by the Bank-financed Social Action Funds.

The prevalence of malnutrition should be as prominent an indicator of progress as economic growth and, together with HIV/AIDS, should be raised in venues outside the health sector. Helping clients achieve gains in nutritional status will require an integrated effort between staff and management skilled in various disciplines, including health, agriculture, education, early childhood development, and social protection (box 4.2).

**Multisector action can reduce disability and death from many causes**

In addition to malnutrition and AIDS, multisector action is required to effectively address other leading causes of morbidity and mortality among the poor in Sub-Saharan Africa. Dams, roads, and irrigation
strategies affect the transmission of vector-borne disease such as malaria. Improved water supply, and even more so improved sanitation facilities, can reduce diarrheal disease. Increasing deaths due to road accidents in Sub-Saharan Africa can be addressed through safety measures incorporated into Bank-supported road projects. Projects in the energy sector can improve service delivery at health facilities and reduce indoor the air pollution produced by kerosene and wood stoves. Lastly, but probably most importantly, mothers’ education is a key determinant of child survival. Well-managed school feeding programs can respond to malnutrition, and school health programs can promote healthy lifestyles while delivering services to school-age children.

**Multisector action can reduce vector-borne diseases**

Like AIDS and malnutrition, vector-borne diseases are best attacked by many sectors at once to yield an effective response. Efforts to control malaria across sectors have a long history, particularly in relation to infrastructure (roads, dams, drainage, irrigation) (Konradsen and others 2002). Progress has been significant in defining strategies for minimizing malaria risk in agriculture, water, and infrastructure projects (World Bank 1999b). Collaboration among the health, environment, agriculture, and foreign affairs sectors effectively addressed the use of DDT for residual spraying for mosquito control through the development of the Persistent Organic Pollutants Treaty of 2001.³

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**Box 4.2 Nutrition interventions can be successful**

- Country programs and research worldwide have demonstrated that:
- Community-based programs can reduce severe early childhood malnutrition by half or more at an affordable cost (Bangladesh, India, Madagascar, Senegal).
- School-based deworming programs are a cost-effective means of preventing anemia in children (Tanzania).
- School enrollment rates increase substantially with relatively small decreases in stunting\(^a\) (Pakistan).
- Reducing vitamin A deficiency lowers overall mortality in children under six by more than a fifth.
- Universal salt iodization eliminates the severe mental retardation associated with iodine deficiency (West Africa, China).
- Addressing anemia could help reduce economic losses (due to poor cognitive skills and reduced productivity) by as much as 2 percent of country GDP (Bangladesh).
- Providing iron to anemic children aged 6–24 months helps prevent cognitive changes that impair school performance.

Note: \(^a\) Low height for age; reflects chronic malnutrition.
A strong relationship between those involved in malaria control programs and those designing development projects can reduce disease and increase productivity. For example, the construction of dams—an obvious step in the development of water resources for irrigation, hydroelectricity, or household water—may increase the incidence of malaria. The Manatali dam and reservoir resulted in a significant increase in the incidence of malaria and schistosomiasis in the surrounding communities in Senegal and Mauritania (Southgate and others 2001; Stelma and others 1993). In the Tigray region of northern Ethiopia, children in villages near recently constructed micro-dams had a sevenfold higher incidence of malaria (Ghebreyesus and others 1999).

Lessons from the West African Rice Development Association demonstrate that strategies to improve access to rapid and appropriate fever treatment can be included in wetland development plans. Some rice cultivation methods have the potential to increase transmission and disease rates, while others can reduce the prevalence of mosquitoes that transmit malaria (Health Consortium and West Africa Rice Development Association 1999; Mutero and others 2000). Environmental and health impact assessments can ensure that certain non-health-sector projects actually contribute to malaria control. Multisector actions can also affect other vector-borne diseases: dengue, schistosomiasis (bilharzia), lymphatic filariasis, and leishmaniasis, among others (Adams and Maegraith 1989, pp. 64–113, 174–95, 370–93, 530–33).

**Improved water supply and sanitation can contribute to improved health outcomes**

Poor water, sanitation, and hygiene explain 10 percent of the deaths and disability-adjusted life years (DALYs) lost in Sub-Saharan Africa, compared with 6–8 percent in developing countries as a whole.\(^4\) Wide coverage with effective water supply and sanitation programs could reduce the burden of disease by as much as 25 percent. Both water supply and sanitation coverage are low in Africa (figure 4.5). During the International Drinking Water and Sanitation Decade (1981–90), water supply coverage rose from 32 to 46 percent in Africa, while sanitation coverage rose from 28 to 36 percent. Since then progress has stagnated, and today—in absolute numbers due to continuing high population growth—more people lack access to adequate services than in 1990 (WHO and UNICEF 2000).
Diarrheal disease, the second leading cause of death among the poor worldwide, is a serious problem for both rich and poor in Africa. It leads to reduced absorption of nutrients and, in some cases, reduced food intake, and tends to be more severe and last longer in already malnourished individuals, thus establishing a vicious cycle of malnutrition and infection. The need to combat water-borne diarrheal diseases is an essential element of the health justification for water supply, sanitation, and hygiene investments (table 4.4). The incidence of diarrhea can be reduced by 17 to 22 percent with safe excreta disposal, by 25 to 40 percent with hand washing, and by 16 to 22 percent with safe water supply (Esrey, Feachem, and Hughes 1985; Esrey and others 1991).

### Table 4.4 Urban and peri-urban water and sanitation investments are cost-effective

<table>
<thead>
<tr>
<th>Investment scenario</th>
<th>Cost per death averted ($ per death)</th>
<th>Cost per DALY saved ($ per DALY)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provide hygiene education to existing water and sanitation infrastructure</td>
<td>523</td>
<td>16</td>
</tr>
<tr>
<td>Provide both hygiene education and water and sanitation infrastructure (where none currently exists)</td>
<td>10,654</td>
<td>320</td>
</tr>
<tr>
<td>Provide water and sanitation infrastructure only</td>
<td>26,433</td>
<td>794</td>
</tr>
<tr>
<td>Provide hygiene education only</td>
<td>966</td>
<td>29</td>
</tr>
<tr>
<td>Provide surveillance, regulation, and enforcement of public health water and sanitation regulations (Mexico, not Africa)</td>
<td>681</td>
<td>20</td>
</tr>
</tbody>
</table>

*Note:* The investment scenarios set out above assume that all of the costs are borne by the health sector. Since there is independent demand for water and sanitation investments, a combined package of hygiene and intermediate technology for water supply and sanitation (the second scenario above) can be cost-effective, though there has been considerable debate on the issue. (Note that the Commission on Macroeconomics and Health gives more costly results).  
*Source:* Varley 1996.
Improving access to sanitation can lead to even greater improvements in health outcomes than improving access to safe water (Vaz and Jha 1996). Studies in Burundi, Ghana, Togo, and Uganda found less diarrhea and taller, heavier children in situations with improved sanitation, regardless of the type of water supply. In a study that analyzed the relationship between improved water supply and sanitation and several water-related illnesses, the median reductions of illness due to diarrhea, ascariasis (worm infection), and trachoma (blindness) were 26–29 percent. Those for illness due to schistosomiasis and dracunculiasis (guinea worm) were 77–78 percent, with a subsequent reduction in child mortality of up to 55 percent (Esrey and others 1991). The health benefits from improved sanitation seem to be greater than those from improved water supply (Bateman and Smith 1991; Esrey 1996). For these reasons, Better Health in Africa (World Bank 1994) suggested that 30 percent of the annual per capita cost of essential health services be committed to water and sanitation.

The importance of behavior change related to sanitation is demonstrated by a city in Burkina Faso, where 90 percent of households had a latrine and half a tap or well in the yard, yet diarrheal diseases remained a major health problem. Studies found that hand washing and sound disposal of children’s excreta remained inadequate, yet only 24 percent of Bank-supported water and sanitation projects include public education programs (World Bank 2001b). Greater collaboration between the water and health sectors, and between Bank water and health staff, could increase the impact of investments in water and sanitation on health and nutrition outcomes, but such collaboration remains a serious challenge both within the Bank and at the country level. In very few countries do the ministries of health and those responsible for water and sanitation work closely together, and making health professionals cooperate with engineers is a challenge under the best of circumstances.

**Road safety is an increasingly important health intervention in Sub-Saharan Africa**

With an expanded network of roads, traffic injuries have become a serious concern for Sub-Saharan Africa (table 4.5). By 2020 road accidents are projected to be the second highest cause of disability-adjusted life years lost in low and middle-income countries (Murray and Lopez 1996b). In 1998 road accidents ranked twelfth as a cause of life years lost in Africa, and ninth when disability adjustment was included in
the measure (figure 4.6) (Peden, McGee, and Krug 2002). Road accidents have economic costs averaging 1 percent of GNP, with costs of 1.3 percent of GNP in Tanzania in 1996 and 2.3 percent of GNP in Zambia in 1990 (Jacobs, Aeron-Thomas, and Astrop 2000).

Although the increase in road deaths has been slower in Sub-Saharan Africa than in other regions, the situation remains critical, especially given the very limited capacity of African health systems to respond to injuries and provide effective clinical trauma care. The majority of road-related injuries and fatalities in developing countries are pedestrians,
motorcyclists, bicyclists, and non-motorized-vehicle occupants, not motorized-vehicle occupants (World Bank 2004b). Young people and economically active people (aged 25–40) are more involved in road accidents in low- and middle-income countries than in Organisation for Economic Co-operation and Development (OECD) countries (Jacobs, Aeron-Thomas, and Astrop 2000).

Improving road safety requires a wide range of interventions, including safer road and traffic pattern design and construction, improved vehicle and maintenance programs, better traffic enforcement by police, more education and publicity programs, broader provision of emergency medical care, and improved data collection—in short, good multisector cooperation. The number of ministries sharing responsibility for road safety is large—five in Zimbabwe, six in Benin and Kenya, seven in Côte d’Ivoire and Tanzania (not including municipalities)—and, in general, significant problems of coordination exist, as well as differing viewpoints about where the main responsibility for road safety should lie.

Many countries have road safety councils to provide better coordination, but they all experience the common problems of limited financial resources, limited monitoring and evaluation, weak or nonexistent implementation of agreed measures, and a lack of political will (road safety is not often perceived as a priority). Multisector coordination of road safety has generally been limited to key ministries. The participation of the private sector and civil society is being explored, especially by the Global Road Safety Partnership (box 4.3) (Global Road Safety Partnership 2001). The prevalence of Bank-financed road projects throughout Sub-Saharan Africa provides wide scope for the Bank to foster the inclusion of road safety programs in road development. Collaboration among the road, education, and health sectors could reduce the correlation between construction of new roads and increased incidence of traffic fatalities.

**Multisector cooperation is needed to ensure that energy projects contribute to health outcomes**

Fewer than 10 percent of Sub-Saharan Africans have access to electricity, except for those in South Africa. In many African countries, such as Mozambique, rural electricity coverage is as low as 2 percent (Saghir 2003). Studies on the aggregate effects of electrification on health—measuring the relationship between health outcomes and public spending on electrification—remain scarce, but there appears to be a clear benefit.
The electrification of rural villages in Upper Egypt had a major effect on reproductive health and fertility. In Bangladesh it was found that electrified villages were significantly better off than non-electrified villages in terms of full immunization coverage among children, antenatal care, prenatal care and maternal services, and access to qualified health professionals (Barkat 2003). With Africa the fastest urbanizing region in the world and electrification coverage predominantly growing in urban settings there, health outcomes of urban populations, including the urban poor, are expected to outpace those of rural populations.

While hydroelectric dams and power stations produce electricity, water, and irrigation that have positive health effects, the water reservoirs, irrigated fields, and power plant emissions carry negative health effects (Jobin 1999). The Manatali and Diama Energy Water projects in Senegal and Mauritania and the earlier Akosombo Lake Volta projects in Ghana resulted in significant net increases in morbidity and mortality largely due to schistosomiasis and malaria (Jobin 1999; Stelma and others 1993; World Bank 1997a, 2000c). In Uganda, the Energy for Rural Transformation Project (2001) addressed health issues up front as part of its environmental and social management framework. Explicitly considering safe drinking water, pollution risks, potential outbreaks of water-borne diseases, health facilities, and workers’ health and safety, the project includes a multisector component involving the ministries of health, agriculture, and water (Uganda Ministry of Energy and Mineral Development 2001).

The generation of energy for household cooking and heating contributes to respiratory infections: as much as 30 to 40 percent of the 760 million cases of respiratory disease worldwide is caused by particu-
late air pollution alone. In Sub-Saharan Africa, this relates to indoor air pollution from open stove cooking and heating (World Bank 2000a). To reduce indoor pollution, clean electricity could substitute for firewood and kerosene. A UNDP/World Bank rural energy market study found that women from households using electricity gain health benefits from better cooking systems (World Bank 2000b). Research by the South Africa Medical Research Council estimates that accelerated national electrification would substantially reduce respiratory disease (South Africa Medical Research Council 1995).

Rural electrification can also be good for primary health care, providing a reliable energy source for lighting, vaccine refrigeration, instrument sterilization, and communications. A rural assessment in South Africa found that 90 percent of vaccine refrigerators were fully functioning at rural primary health care facilities with electricity, compared with 20 percent for facilities with solar or other energy systems (table 4.6) (South Africa Medical Research Council 1995). Wide scope exists for more rigorous assessments of the mutual benefits of cooperation between the health and energy sectors and of multisector action with client countries.

Education and school health are important inputs to better health and nutrition and reduced fertility

The education of girls and women is among the most powerful determinants of infant and child mortality (figure 4.7). Female education must be promoted to attain the MDGs. The efforts of the World Bank’s education sector to increase literacy among girls and women are well established (Banco Mundial 2002). The effects of such efforts in improving nutritional status among children and in reducing fertility should continue to be recognized in Bank operations (World Bank 1993a).

| Source: South Africa Medical Research Council 1995. |
Education provides girls and young women with choices; many will choose to delay sexual activity and early childbearing and thus avoid sexually transmitted diseases, risky pregnancies, and unsafe abortions (UNICEF, UNAIDS, and WHO 2002). Girls aged 15–19 are twice as likely to die from childbirth as women in their twenties; those under age 15, five times as likely (UN 1991). Children born to adolescent mothers have higher risks of death during the first five years of life. For these reasons, targeting school-age children with health information is an important input for reducing child mortality.

The Bank has made a strategic choice to support multisector action for health in Africa through school health programs, an area of demonstrated success and significant untapped potential (World Bank 2002c). Studies conducted in Honduras, Kenya, and the Philippines have shown that both academic performance and mental ability are significantly higher among pupils with good nutritional status (Florencio 2000; Pollitt 1990; Rogers and others 1995). School-age children also are less likely to have contact with the formal health system. They are generally the healthiest demographic subgroups, but also the most susceptible to adopting unhealthy behaviors that affect nutrition, hygiene, and reproductive health. Schools provide venues for reaching populations that would otherwise be missed, and in Sub-Saharan Africa they generally achieve better geographic coverage than health facilities (box 4.4).
Educating school children on how they can prevent AIDS, sexually transmitted diseases, and unwanted pregnancies will have the greatest impact on subsequent generations. Health education, including knowledge of the human body, healthy lifestyles, and the sources of disease, should thus be part of the school curriculum from an early age.

Schools and teachers may also play important roles in reducing the malaria burden, with lessons on the recognition of symptoms and appropriate prevention strategies, and in some cases with the presumptive treatment and referral of malaria cases (Magnussen and others 2001). A Bank-financed education project in Senegal has successfully integrated malaria interventions. Similarly, school-age children in Sub-Saharan Africa bear the greatest share of intestinal helminthes, and school-based deworming programs can have a significant impact on both health and learning (WHO 1997). A study in Kenya found that administering deworming drugs to school children reduced absenteeism and was more cost-effective than other attempts to increase attendance (treatment may cost as little as $0.49 per person per year) (Miguel and Kremer 2001). School children can also be influential in their homes and communities, conveying healthy practices through messages and examples.

In 2000 the World Bank joined WHO, UNESCO, and UNICEF in an interagency partnership called Focusing Resources on Effective School Health (FRESH). Since then, African governments have developed school health and nutrition components in more than 20 current or pipeline projects with the World Bank. The following four components have been identified as operationally feasible in the poorest schools, both in hard-to-reach rural areas and in accessible urban areas:

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**Box 4.4 Health interventions in schools succeed in Tanzania**

In 1994 a survey in the Tanga Region of Tanzania identified a small package of interventions with the potential to improve children’s health and education, including annual treatment for schistosomiasis in schools. Two rounds of free treatment, administered by teachers, were delivered to schools in 1996 and 1997 by the Ministry of Education in collaboration with the Ministry of Health. The cost of treatment was about $1 per child, 70 percent of which was the cost of drugs. New health education materials have been developed by the Ministry of Education with the Aga Khan Foundation and provided to all intervention schools in Tanga.

- Adopting health-related school policies, such as those that provide incentives for girls to avoid pregnancy or to discourage smoking.
- Providing safe water and sanitation and a healthy learning environment that reinforces hygienic behaviors and provides privacy.
- Promoting a skills-based approach to health, hygiene, and nutrition education that establishes lifelong healthy practices and reduces the vulnerability of adolescents and teachers to HIV/AIDS.
- Having teachers deliver school-based health and nutrition services that are simple, safe, and familiar, and that address those health problems recognized as important in the community, including counseling to cope with HIV/AIDS.

Schools are also used as the base for feeding programs to address malnutrition among children. Evidence suggests that such programs can be successful only if they are part of a holistic program of using the school as a base from which to improve health and education status. The overall program should include some combination of ensuring that all education inputs are in place, providing ongoing teacher training, and offering micronutrient supplementation and deworming programs. School feeding programs can successfully reach the neediest children and can lead to improved attendance as well as improved education outcomes, but only if accompanied by other inputs that assure school quality.

However, because school feeding programs can stress already overburdened ministries of education, they require strong interministerial coordination. Although most of the food comes in donations, ministries also need money to manage the programs. While targeting may be required to ensure cost-effectiveness, regional coverage is often necessary to discourage children from transferring to schools providing the supplement. Until there is more equal participation of girls in schools, there may be scope for extra incentives for girls, such as an additional “take home” ration.

**Conclusion**

Client countries and development partners expect the Bank, as the only global multisector institution, to address health, nutrition, and population objectives across all the sectors of its operations. If the MDGs are to measure the success of the World Bank’s portfolio, staff have to be
concerned with how specific investments, strategies, and actions in each sector affect the prevalence of hunger, the incidence of child deaths, the health of mothers, and the impact of disease (HIV/AIDS, malaria, waterborne illness, and others). Sector specialists in the Bank need to build on the insights and knowledge of overall intersector correlations to understand how girls’ education, electricity generation, rural electrification, water and sanitation, the construction of dams and roads, and the approaches to rice cultivation can affect morbidity and mortality.

Multisector action for better health outcomes puts a premium on cooperation across ministerial departments, across professions, and across widely varied institutional cultures. Yet cooperation is frequently difficult because of differences in professional training and values, and because people working in large bureaucratic institutions tend to be responsive up and down but have few incentives to work collaboratively on a horizontal basis. The Bank and its partners need to work with African countries to overcome these barriers and to facilitate the introduction of incentives for multisector action.
Effective Systems for Delivering Health, Nutrition, and Population Interventions

Why should the World Bank focus on health systems? Because they affect health outcomes. The choice of specific interventions (or packages of interventions, such as Integrated Management of Childhood Illness (IMCI) or reproductive health) is critical to those outcomes, but the interventions will not have an impact unless delivered effectively. The World Health Report 2000 (WHO 2000d) asserts that “the differing degrees of efficiency with which health systems organize and finance themselves, and react to the needs of their populations, explain much of the widening gap in death rates between the rich and poor, in countries and between countries, around the world” (p. xii). Table 5.1 depicts the range of factors that affect the sector’s interactions with clients.

Bringing global knowledge and experience to the strengthening of systems and institutional capacity is the World Bank’s contribution to sustainable health system development. The Bank’s focus is on building the capacity of client countries to identify and continually reevaluate priority health concerns, set national health policies, design effective local strategies that build on global knowledge and experience, mobilize
domestic resources and foreign assistance, implement strategies, and monitor and evaluate the strategies’ impact (box 5.1).

This chapter recognizes the range of actions taken by African ministries of health as they work to strengthen service delivery, and it highlights the challenges they face in improving the effectiveness, efficiency, and coverage of health, nutrition, and population interventions, including

- Overcoming workforce-related problems
- Making pharmaceuticals accessible and affordable.
- Getting the institutional and organizational frameworks right
- Strengthening the private sector
- Increasing household and community demand for effective services

### Table 5.1 Measurable factors affect the health sector’s interactions with clients

<table>
<thead>
<tr>
<th>Key determinants of sector performance</th>
<th>Examples of the problem identified</th>
<th>Strategies that might respond</th>
</tr>
</thead>
</table>
| Physical accessibility                | Low access to clinic services and to community-based activities | • Public-private-NGO mix  
• Essential health packages  
• More and better-deployed human resources |
| Availability of human and material resources | Shortages of drugs, vaccines, and trained staff | • Pharmaceuticals  
• Human resource recruitment and retention  
• Stewardship |
| Organizational quality                | Inconvenient opening hours and lack of privacy | • Staff incentives and training  
• Supervision  
• Community and civil society participation |
| Relevance of services                 | Mix of services does not correspond with basic package | • Public-private-NGO and community-based organization (CBO) mix  
• Core health packages  
• Pharmaceuticals  
• Contracting and purchasing  
• Stewardship |
| Timing and continuity                 | Weak linkages with community structures and poor supervision | • Community and civil society participation  
• Contracting and purchasing |
| Technical quality                     | Inefficacious services because of failure to respect treatment standards | • Contracting and purchasing  
• Pharmaceuticals  
• Stewardship  
• Education and training, incentives, professional regulation, licensing |
| Social accountability                 | No voice of the poor in delivery of services | • Community and civil society participation |

Health workforce limitations pose the greatest challenges to health care delivery

Since the endorsement of the Millennium Development Goals (MDGs), many of the international community’s efforts have concentrated on mobilizing financial resources, especially for addressing HIV/AIDS in Africa. However, low disbursement rates reveal that health service delivery systems are severely constrained. The lack of a skilled and motivated workforce inhibits the cost-effective use of funds. Other factors undermining workforce performance include poor geographic deployment, mismatched skills, unsatisfactory working conditions, poor training facilities and curricula, ineffective supervision, weak regulation, and low pay (Table 5.2). When combined with the serious brain drain of physicians and nurses out of Sub-Saharan Africa, these factors result in low productivity, limited and inequitable access to health services, and poor clinical service quality.

Although the lack of health care personnel is critical, the World Bank has begun to give this issue adequate consideration only recently (World Bank 1999).
Until 2002 health workforce issues were seldom considered when setting specific health objectives or promoting civil service or health sector reforms in Africa. While no Sub-Saharan country has yet developed a comprehensive strategy to address the improvement of its health workforce, governments have experimented with innovative approaches to cope with shortages, prevent excessive emigration, deploy staff more appropriately, and improve the quality of training and management.

**Access to health providers is lower in Sub-Saharan Africa than in any other region**

**There are simply too few staff.** Access is a function of the availability, composition, and deployment of the health workforce, and in Sub-Saharan Africa the high disease burden is not matched by a sufficient availability of health personnel. The provision of the priority interventions recommended by the Commission on Macroeconomics and Health is estimated to require between 70 and 95 nurses and midwives per 100,000 population, and 40 to 60 physicians or other clinically trained health workers (Kurowski and others 2004), but most countries in Sub-Saharan Africa fall far short of these ratios (WHO 2003b). Malawi, for example, has 24 nurses and only 2 doctors per 100,000 people, even if clinical officers and medical assistants are included.

Country ratios vary widely. Burkina Faso has 3 doctors and 20 nurses per 100,000, Botswana 24 doctors and 219 nurses. Studies from Tanzania and Chad indicate that staff availability will be grossly insufficient for scaling up priority interventions: by 2015 Tanzania will be able to meet only 50 percent of its staff needs, Chad only 25 percent (figure 5.1).

The size of the health workforce is reduced by the magnitude of attrition through resignation, retirement, disability, death, and migration (box 5.2). The HIV/AIDS epidemic has not only dramatically increased the demand for health services, it has also increased attrition due to disability and death among health personnel.

In low-income countries less seriously affected by the epidemic, disability and death typically account for less than 10 percent of attrition. In Malawi, where HIV/AIDS prevalence has reached 15 percent among 15- to 49-year-olds, deaths accounted for 58 percent of the attrition of ministry of health personnel between 1990 and 2000, a substantial proportion attributable to AIDS (UNAIDS 2003; UNDP 2002b).
Emigration is a key determinant of undersupply of health professionals. Factors driving emigration include better remuneration and career opportunities in richer countries, and political instability, perceived security risks, and the lack of institutional meritocracy in poorer ones (box 5.3). In addition, rich countries recruit actively in poorer countries to meet their growing needs. Developing country professionals can constitute between 24 and 36 percent of the total health workforce in developed countries (Biviano and Makarehchi 2002). The imbalance is even greater for nurses than for physicians (Zarilli and Kinnon 1998). The number of trained nurses and midwives registering in the United Kingdom from seven African countries increased from 905 in 1998–99 to 2,133 in 2000–01 (figure 5.2) (Martineau, Decker, and Bundred 2002).

Country-specific information shows large losses of health sector personnel. In Ghana during the 1980s, 60 percent of newly trained

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**Box 5.2 The migration of health professionals is a severe problem**

*In Zambia:* Of the more than 600 physicians trained in the country since independence, only 50 remain in the Zambian health system.

*In Ghana:* 70 percent of all 1995 medical graduates had migrated by 1999.

*In Ethiopia:* A third of all physicians left the country between 1988 and 2001.

Box 5.3 Push and pull factors contribute to the medical brain drain out of Africa

**Push factors** (African economies)
- Low remuneration and benefit packages
- Professionally deficient and unsatisfactory work environment
- Poor clinical infrastructure and facilities
- Lack of opportunities for upgrading technical skills and professional career
- Lack of schools for children
- Poor housing that lacks electricity, potable water, and sanitation
- Political and social conditions (war, conflict, political repression, crime)

**Pull factors** (Organisation for Economic Co-operation and Development economies)
- Attractive and satisfying clinical work circumstances
- Much higher income and benefits
- Better quality of life, including prospects of good education for children
- Professional career development and training opportunities
- High demand for foreign physicians and nurses due to falling numbers of health workers in OECD countries, an aging population and health workforce, and increased health expectations
- Aggressive medical recruitment drives in Africa by OECD health authorities and agents

Source: Padarath and others 2003.
doctors emigrated, many immediately after receiving their degrees (UNDP 1992). In Zimbabwe only 360 of the 1,200 doctors trained in the 1990s were practicing in their country in 2000. Half of those trained in Ethiopia and Zambia have also emigrated (Frommel 2002). Between 2000 and 2002, Malawi lost an average of 100 registered nurses and midwives a year to the UK alone (Dussault and Rogo 2003).

The high levels of attrition have been compounded by insufficient production of new staff. As a result, the size of the health workforce in Africa has stagnated or declined over the last decade. The economic crises and the resulting structural adjustment programs in the 1980s and 1990s discouraged the expansion of personnel and services, and many people hired during the workforce increase of the 1970s will retire between 2010 and 2015, drastically depleting staff. Cameroon, Tanzania, and Zambia froze recruitment of health professionals for a time, which will compound the problem (ILO and WHO 1999; Kurowski and others 2004; Martínez and Martineau 1998; WHO and World Bank 2002). Investment in training capacity has been minimal; Madagascar closed its nursing schools for many years, and, according to the World Health Organization directory of medical schools (WHO 2000c), 6 of 39 low-income countries in Sub-Saharan Africa lacked a medical school in 2000, and 21 countries had only one.

Poor deployment of staff further limits access and coverage. Imbalances in the geographic distribution of staff—especially between rural and urban areas—exacerbate accessibility problems (Dussault and Franceschini 2003). In Ghana, Guinea, and Senegal more than 50 percent of physicians are concentrated in the capital city, home to less than 20 percent of the population. A similar situation exists for nurses, pharmacists, and medical technicians: 55 percent of pharmacists in Ghana work in the Greater Accra Region, which has only 16 percent of the total population, while only 2 percent of Ghanaian pharmacists work in the Northern Region, with 10 percent of the population (Ghana 2002). In Chad, the capital region of N’Djaména has 71 physicians per 100,000 people, and the Chari-Baguirmi region only has 2 per 100,000 (Wyss, Doumagoum, and Callewaert 2003). Mali has 5 doctors per 100,000, but that ratio ranges from nearly 19 in the capital region (Bamako) to a mere 2 in the Koulikoro region (Mali 2002). In Tanzania ratios of staff to population vary by a factor of 10 between districts and municipalities; some districts and municipalities have only 1 nurse per 100,000 people (Kurowski and others 2004). In addition, large proportions of health
workers tend to be employed at the secondary and tertiary levels of care, which undermines efforts to increase access to priority interventions delivered through primary care services (figure 5.3).

**African governments employ various strategies to cope with shortages**

Efforts to cope with the consequences of shortages include redefining existing cadres and creating other cadres of personnel who have less training but are more likely to stay in the country (clinical officers, medical assistants, clinical outreach nurses). Extending the scope of practice of paramedical personnel has frequently met resistance from physicians and nurses, but there are some exceptions. In Botswana training more nurse practitioners and pharmacists has compensated for the lack of physicians in some areas (Egger and Adams 1999). In Mozambique and Ethiopia paramedics called field surgeons and clinical officers provide health services normally expected from physicians (Dovlo 2001), and in Ghana community health workers are now trained as midwives, and the Life Saving Skills Project has trained rural midwives in skills normally limited to physicians (Dovlo 1998). The impact of these measures has yet to be evaluated.

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**Figure 5.3 Most Nigerian registered physicians are in private hospitals**

To fill the gap, many African countries have also been hiring expatriate physicians; for example, the Ministry of Health in Lesotho employs physicians from Myanmar, Pakistan, and India, and Cuban physicians have established practices in rural South Africa (Health Systems Trust and the Henry J. Kaiser Family Foundation 1996; Wilbulpolprasert 1999). However, cultural and language barriers are often a concern in such situations.

**Preventing emigration.** Countries have tried bonding measures to reduce emigration, with little success. Some countries have established bilateral agreements with developed countries to encourage the return of immigrants. Ghana and the United Kingdom established an agreement allowing Ghanaian nurses to work in the United Kingdom for only a clearly specified period (OECD 2002b). The United States created a cultural exchange visa that allows foreign health workers to work in the country for a limited time, on the condition that they return home for at least two years before applying for readmission (OECD 2002b). However, ensuring that people come back does not guarantee an adequate supply of personnel to the poorest. On their return, few professionals are willing to accept positions in the rural and underdeveloped areas, preferring positions in the private sector and urban settings.

Countries benefiting from the emigration of qualified health personnel have taken little action to restrict it. The Norwegian Agency for Development Cooperation, Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ), and WHO have adopted recruitment policies that emphasize the employment of task-specific and short-term consultants, with a commitment from national institutions to retain such staff (Van Lerberghe and others 2002). The Commonwealth ministers of health agreed on a code of practice for international recruitment of health workers (Commonwealth Secretariat 2002), although the effect in Britain seems to have been limited (Buchan 2002). South Africa has a policy of not recruiting from other African countries. The impact of these policies has not been evaluated.

Experiments with retention measures include delinking health staff from civil service to allow more flexibility, increasing remuneration with performance, and allowing public employees to operate part-time private practices in government facilities. However, efforts in Nepal and Ghana show that such incentives can divert scarce resources from public services and induce professionals to opt for independent private practice (Zurn and others 2002).
Redeploying staff. Many things have been tried to prevent or reduce the misdistribution of human resources. Most have focused on reforming education processes and creating incentives to attract health professionals to otherwise unattractive locations. Financial incentives alone usually have not been enough to ensure adequate staff in remote and underserved areas. Another common strategy has been to make rural field residencies or internships a requirement during or after medical training. In Ghana rural experience has lengthened rural practice (Wibulpolprasert 1999). In South Africa students receive their diplomas only after completing their public service period, which may entail practicing in rural areas. The effectiveness of compulsory social service in less attractive regions after graduation needs to be assessed. If the process of posting is not transparent, it opens the door to corruption and becomes ineffective. If it is applied too rigorously, it can become an incentive to leave the country.

Improving the quality of training and management. Efforts to improve quality include reviewing curricula, introducing incentives and performance-linked pay, and bolstering professional associations. However, much more needs to be done to create a culture of quality:

- Acknowledge that countries must offer internally competitive wages and benefit packages to retain trained staff
- Invest in training oriented to the needs of national markets to stem the brain drain
- Invest in HIV/AIDS prevention and care to mitigate the epidemic’s impact on the demand for health services and to prevent depletion of the health workforce
- Exploit alternative service delivery mechanisms to reduce the workloads of health personnel
- Improve nonmonetary incentives to improve the motivation and thus the productivity of the health workforce and the quality of the services they provide

In 2001 the World Bank’s Africa Region, with the WHO and the United Nations Education, Scientific and Cultural Organization (UNESCO), initiated and co-hosted a meeting of African countries to highlight the health workforce crisis in Africa and to alert African governments to the seriousness of the issue. The Bank also developed a regional work program and has co-instigated the Joint Learning Initiative on global
health workforce issues, now led by the Rockefeller Foundation. The Bank’s operational and analytical activities, particularly its health sector reform projects in Africa, now incorporate and address health workforce policy and investment issues.

A broader engagement with workforce issues is critical because the health workforce bottleneck is a major obstacle to achieving poverty reduction and progress toward the MDGs. The Bank is well positioned to advance the policy dialogue, convene critical players in the health workforce policy arena, mobilize the resources needed to revitalize the health workforce, and help develop the analytical capacity applicable to the economics of labor markets for health.

Bank engagement should continue to build on the existing knowledge base and on additional analytic activities that will fill crucial gaps in information and policy evidence. The Bank can provide leadership on health workforce issues by continuing to partner with key players such as WHO, UNESCO, the International Labor Organization, the International Organization for Migration, and the African Development Bank. Activities and areas of engagement will need to include the following:

- Continuing to support the Rockefeller Foundation’s Joint Learning Initiative
- Bringing attention to human resources issues at global public-private initiatives such as the Global Alliance for Vaccines and Immunization and the Global Fund to Fight AIDS, Tuberculosis and Malaria
- Mobilizing the donor community
- Producing and disseminating knowledge products on health workforce development and management, including toolkits, fact sheets, country cases, and comparative studies
- Offering learning opportunities, using face-to-face, distance, and Web-based strategies

**Access to and use of pharmaceuticals must be improved**

After salaries, pharmaceuticals represent the most significant proportion of government and private out-of-pocket expenditures in many countries in Sub-Saharan Africa. Total pharmaceutical expenditures in African countries average 20 to 50 percent of total health care expendi-
tures, compared with only about 12 percent in OECD countries (Brudon 1997; Patel 1983; Segura 1998; WHO 1998b). They typically account for between 10 and 30 percent of total recurrent costs of public sector health expenditures. In many African countries, they account for the largest share of out-of-pocket payments (Berman 1995). Approximately 30 percent of Bank financing of its health, nutrition, and population projects in Sub-Saharan Africa is spent on pharmaceuticals and medical supplies.

Even so, actual per capita pharmaceutical expenditures are much lower than in most other regions of the world (figure 5.4). In the poorer parts of Africa, about 50 percent of the population lacks access to essential medicines altogether, “perhaps the most cost effective element of public health after immunizations and key health promotion habits” (Quick and others 2002, p. 914). Most African countries face serious challenges in ensuring that essential drugs are available and physically accessible, affordable, of high quality, and used rationally.

**Figure 5.4  Per capita pharmaceutical expenditures are lowest in Africa**

Source: Bennett, Quick, and Velasquez 1997.
Lack of access to essential medicines limits the effectiveness of service delivery

Because most medicines in Africa are imported, adequate foreign exchange is crucial to ensuring their availability, yet government expenditure plans rarely recognize and plan for these currency requirements. The limited capacity to manage pharmaceuticals in the public sector is a further impediment to access. Stark indicators of the paucity of drug management capabilities are the high rates of stock-outs at government health centers and pharmacies, and the frequent emergency procurement requests in Bank-financed and donor projects.

WHO has suggested that “in many countries, more money is wasted and lost through poor management and handling of drugs than could ever be recovered through user charges” and that it is “inequitable to ask patients to pay for the inefficiencies of a system” (WHO 1988, p. 12). Poor management, along with foreign exchange constraints, results in delays in purchasing drugs and failures to ensure that sufficient quantities are in the pipeline. Ministries of health may choose from a range of options in developing a drug supply system, including public or privatized, central or decentralized medical stores, or a fully private system (table 5.3). Of these, the central medical stores, the autonomous supply agencies, and the prime vendor system are seen most often in the region.

Many countries, such as Benin, Tanzania, Uganda, and Zambia, have established parastatal drug procurement entities, while others, such as Malawi, have contracted out the procurement, storage, and distribution of essential drugs to international agencies. Some have also permitted the private sector (mainly NGOs) to procure drugs from these agencies, as with the Christian Health Association of Malawi. In Guinea drugs are supplied by both the Essential Drugs Unit and by the Pharmacie Centrale de Guinee.

With decentralization, some countries are allowing districts to purchase drugs and supplies from private sector suppliers, employing competition in an effort to improve the services of public sector facilities. For example, Cameroon has organized drug supply at the provincial level through the Provincial Special Fund for Health, the focal point for drug procurement and distribution. The surplus funds generated are used for provincial-level health activities (supervision, training, monitoring). In other instances, as in the Northern Transvaal province in South Africa, procurement takes place at the central level, but distribution is undertaken...
directly in the districts by a prime vendor contracted by the central procurement entity.

A mix of these methods is found in some African countries. For example, the Zimbabwe Essential Drugs Action Programme (ZEDAP) uses different systems for different categories of drugs. High-use drugs on the essential drugs list are procured, stocked, and distributed in bulk through the central medical stores. For high-cost, slow-moving specialist items, direct delivery contracts are used. For most specialist items an annual tender is conducted to fix the price for the entire year, and drugs are then ordered as needed by roughly two dozen national hospitals and NGO hospitals that require them. Orders are delivered directly to the hospitals. Finally, for cancer agents and some other highly specialized drugs, no contract exists. Instead, drugs are purchased by the ministry’s pharmaceutical division by individual order, with permission from the Secretary of Health.

In addition to the general problems of making drugs available, African countries face the added problem that, since they represent such a small proportion of the global pharmaceutical market, there are limited market

### Table 5.3 Various pharmaceutical supply systems exist in Africa

<table>
<thead>
<tr>
<th>System</th>
<th>Responsibilities</th>
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<tbody>
<tr>
<td><strong>Central medical stores (CMS)</strong></td>
<td>Drugs procured and distributed by centralized government unit</td>
</tr>
<tr>
<td><strong>Autonomous supply agency</strong></td>
<td>Bulk procurement and distribution managed by autonomous or semi-autonomous agency</td>
</tr>
<tr>
<td><strong>Direct delivery system</strong></td>
<td>Decentralized approach</td>
</tr>
<tr>
<td><strong>Prime vendor system</strong></td>
<td>DPO establishes contracts with drug suppliers and separate contract with a single prime vendor</td>
</tr>
<tr>
<td><strong>Fully private supply</strong></td>
<td>Private wholesalers and pharmacies manage all aspects of drug supply with government facilities</td>
</tr>
</tbody>
</table>

**Note:** CMS = central medical stores; DRA = national drug regulatory authority; DPO = drug procurement office (ministry of health or other government office). Source: Bennett, Quick, and Velasquez 1997.
incentives for the international pharmaceutical industry to develop new drugs specific to the diseases of those countries, including many tropical diseases. For example, malaria accounts for about 3 percent of the total global burden of disease. If 3 percent of the total global biomedical research were to be directed to therapies for malaria, this would amount to an investment of about US$1.8 billion. In fact, actual research outlays for malaria total only about US$100 million (Anderson, MacLean, and Davies 1996).

Recently, some important partnerships between African countries and commercial entities have been initiated for new drug development. The World Bank/UN/WHO Special Program for Research and Training in Tropical Diseases has played a key role in the establishment of public-private partnerships in this area. The number of such partnerships for drug and vaccine development is increasing, and now includes the International AIDS Vaccine Initiative, the Medicines for Malaria Venture, and the Global Alliance for TB Drug Development, which are trying to meet the needs not currently addressed through commercial or academic research and development (R&D). Even so, the 1993 World Development Report (World Bank 1993b), and more recently the WHO’s Commission on Macroeconomics and Health, concluded that investment in health technology research relevant to the needs of developing countries is seriously inadequate in relation to the potential benefits.

**Affordability places many pharmaceuticals out of reach for Africa’s poor**

Affordability is a serious issue in Sub-Saharan Africa, since most drugs are expensive and paid for out of pocket. The issue of affordability needs to be considered from both the financing and the pricing perspective. On the financing side, pharmaceuticals may be funded through public financing, donor financing, development loans or credits, health insurance, or private out-of-pocket spending by families and individual patients. Public spending on drugs as a percentage of total health spending is lowest in developing countries. Health insurance contributes little, since only about 8 percent of Africans have health insurance. Out-of-pocket payment finances, by far, the greatest amount of pharmaceutical spending in Africa.

The disease patterns in Africa impose additional challenges for the affordability of drugs for African governments. For example, drugs for HIV/AIDS treatment are expensive and difficult to manage, yet many
patients do not have access to the inexpensive and simple-to-manage drugs needed to alleviate opportunistic infections. While marked reductions in the cost of antiretrovirals (ARVs) for Africans have been achieved (figure 5.5), serious equity concerns persist, along with the sobering realization that provision of these drugs to patients will be subject to the same service delivery constraints that affect access to essential drugs across the continent (Corporate Council on Africa 2001).

A large proportion of private sector drug prices reflect substantial markups. In Burkina Faso and Mali the price of French brand-name drugs in private pharmacies was fixed at 150–200 percent of the retail price in France. In Sierra Leone the markup on private sector sales of chloroquine ranged from 400 to 800 percent (Turshen 2001). The contrast with the much lower markups—from 25 to 45 percent—in industrial countries is striking.

International competitive bidding, advocated by the Bank, can significantly reduce the cost of drugs. In many African countries local purchases can account for over 50 percent of total pharmaceuticals at an
average cost that is as much as 25 percent greater than the cost of competitively imported pharmaceuticals (Turshen 2001). Bank-financed pharmaceutical procurement can be a long and complicated process for countries unaccustomed to international competitive bidding, resulting in unnecessary delays. At the same time, Bank-financed procurement can strengthen public sector procurement policies in order to improve drug availability and enhance private sector supply (for example, through user-friendly registration and pricing) (World Bank 2000d).

At the international level, prices for newly introduced pharmaceuticals—even if set at tiered levels for developing country markets—present developing countries with major budgetary problems. Full provision of antiretrovirals for AIDS patients and artemisinin-based combination therapy for malaria patients across Africa would add more than a billion dollars annually to the drug budgets of African countries as a whole (Reich, Govindaraj, and Cohen 2000). Globalized product patents can expand access to drugs, if firms introduce new products into developing country markets after legal assurances of adequate patent protection or disregard the patent issue altogether (as in many African countries, where patents simply remain unregistered). Similarly, patent protection can provide an impetus to foreign direct investment and technology transfer, as well as local and foreign R&D investments relevant to developing countries. The globalized patent protection issues between developed and developing countries, including aspects of parallel trade and compulsory licensing for newly patented pharmaceuticals,10 were discussed as part of the World Trade Organization (WTO) Cancun Consultations in Mexico in September 2003 (Millar 2003).

Responding to global concerns about corporate behavior and responsibility of the international R&D-based pharmaceutical industry, several partnerships between African countries and international drug manufacturers have emerged to increase access to drugs in Africa (box 5.4).

Many of the partnerships involve donations of drugs and offers of concessionary pricing. While free or very low cost provision of drugs can reduce diseases to manageable proportions (see Merck’s lifelong support for combating river blindness in box 5.4), excessive reliance on drug donations can also be problematic (box 5.5). WHO’s Essential Drug Department, in conjunction with the Bank and other partners in the Interagency Pharmaceutical Coordination Group, has developed an excellent set of drug donation guidelines (WHO 1999a). Donations should comply with international and national donation guidelines. If
they do, they can be an important means of improving access to medicines and, if well managed, an important complement to overall national drug policies in Africa.

African countries would benefit from a system that ensured fair pricing through open competition in open African markets (Ganslandt and Maskus 2001; Pérez-Casas, Herranz, and Ford 2001). Such a system could be developed through a comprehensive strategy that includes generic competition and systematic differential pricing, along with other

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**Box 5.4 African countries partner with international drug manufacturers**

- Boehringer-Ingelheim provides free drugs (Nevirapine) to African countries to prevent the mother-to-child transmission of the HIV virus during and after pregnancy and delivery.
- Merck has provided, since 1988, very large amounts of free medicines to those who suffer from river blindness throughout Africa. Ten years later it expanded this program to include lymphatic filariasis in countries where the two diseases coexist. Merck is also an active participant in the African Comprehensive HIV/AIDS Partnership. In addition to a $50 million contribution, Merck will provide free antiretroviral HIV medicines for the duration of the program.
- Abbott Laboratories has financed programs in Tanzania and Burkina Faso that benefit AIDS orphans and other vulnerable children. It has also deepened its commitment to fighting HIV/AIDS by making AIDS diagnostics and therapeutics available at no profit throughout Africa.
- Bayer has committed to providing two drugs for the treatment of African sleeping sickness to WHO at no cost for an initial five-year period. It has also donated drug products to missionary aid projects operating in Africa.
- Bristol-Myers Squibb supports capacity building, community outreach and education, as well as medical research in programs that specifically address the needs of women and children affected by AIDS in the five most southern African countries and four West African countries.
- GlaxoSmithKline is providing free preventive medicines (in conjunction with Merck) to any developing country until lymphatic filariasis (a tropical disease that causes significant illness in Sub-Saharan Africa) is eliminated. It also supports pediatric trials of a malaria vaccine in Africa and has provided 500,000 free doses of its meningitis vaccine for use during epidemics.
- Johnson & Johnson is providing AIDS-related support in Zimbabwe and South Africa and contributing to the Guinea Worm Eradication Program.
- Novartis provides free treatments for those who suffer from leprosy and is a partner in the Roll Back Malaria effort, providing a novel life-saving malaria treatment at cost.
- Pfizer provided drugs to South Africa to treat the opportunistic infections associated with HIV/AIDS and is co-founder of an initiative to combat trachoma, the world’s leading cause of preventable blindness. Pfizer is also funding a physician-led NGO that built, equipped, and operates an AIDS training, treatment, and prevention center in Uganda and will finance research on community-based approaches to HIV/AIDS prevention.
- Besides contributing to the fight against HIV/AIDS, Roche founded the Roche African Research foundation that supports research on various infectious diseases and contributes to efforts to reduce vitamin A deficiency.

*Source: Pharmaceutical Research and Manufacturers of America 2002.*
policy changes and organizational improvements in the pharmaceutical sector in Africa. The recent agreements between developed and developing countries at the WTO hold some promise for improved access to essential medicines in the poorest countries in Africa.

**Poor quality control further limits access to effective medicines**

Across Africa, the capacity to ensure the quality of drugs is limited. WHO advocates government regulation of the manufacture, export, import, storage, distribution, supply, and sale of drugs to ensure safety, efficacy, and quality, usually through national drug regulatory authorities. But those authorities must be able to operate effectively, with political support and adequate human, financial, and other resources; and the legal authority for enforcement remains scarce.

Poor quality is a result of production procedures (not all producers adhere to good manufacturing practices or GMP) as well as the lack of temperature control in distribution. A 2003 survey in Kenya found that between 32 and 44 percent of the two main malaria drugs on the market were biologically substandard (Amin and others 2002, pp. 1–32), and a study in Nigeria in 2001 found that 48 percent of a wide range of sampled drugs had too much, too little, or even no active ingredient (Taylor and others 2001). GMP certification is not a guarantee, and the problem is compounded by the explosion of fake and counterfeit drug manufacturers
and suppliers. Registration is an important regulatory tool in many African countries. The Bank can support drug registration systems by ensuring that all Bank-procured drugs conform to them (Sterling and Voetberg 1998). Some African drug registration systems are financially self-sufficient through the use of registration fees, which could also provide incentives to local production (Bennett, Quick, and Velásquez 1997). Beyond registration, efforts to ensure quality control should include monitoring production facilities, testing the efficacy of imported drugs, and ensuring that expired or counterfeit drugs in health facilities or shops are disposed of properly.

**Rational pharmaceutical use by both providers and patients is required to ensure improved health outcomes**

Problems related to rational drug use are as serious on the supply side as on the demand side. They include general overprescription of antibiotics and injections, with corresponding underutilization of effective products such as oral rehydration salts or contraceptive pills. Injections are overused because of preferences among many African patients and health care providers, but they are more costly and are associated with greater risks of infection. Consumers facing overprescription may purchase the most affordable drugs prescribed, not necessarily the ones that would have the greatest impact.

Adherence to prescription dosage instructions is poor even among the highest educated groups in OECD countries. Households in Sub-Saharan Africa face greater constraints on compliance due to pressure to share drugs in poor households, little information from providers, and low literacy. Poor compliance with treatment for antibiotics and antimalarials is the norm because symptoms improve before the full treatment has been completed. Noncompliance by patients taking antibiotics (including malaria or AIDS drugs) is the main reason for global anti-microbial drug resistances. The DOTS\textsuperscript{12} strategy for treating tuberculosis has improved compliance with a treatment very susceptible to misuse (medication must be taken daily for months) because a health worker is required to observe and record each outpatient’s treatment.

An essential drugs list that is up to date and user friendly promotes rational drug use, as do treatment protocols and coherent generic drug strategies. As of 2003, only 36 African countries had a national drug policy, and an estimated 50 percent or more of the African population
lacked regular access to essential drugs (WHO 2000b). A good registration system can have a positive impact on the rational use of drugs, and a good monitoring system will provide the information needed to guide policies promoting rational drug use (Brudon 1997). When essential drugs are in short supply, ensuring that the patient gets the right type of drug in the right dosage can be difficult, so availability and affordability are prerequisites to rational use. Improving rational use of drugs can also lead to significant cost savings (WHO 1999c).

The institutional and organizational frameworks must also be right

Few countries in Africa have yet internalized the view held by the World Bank, the WHO, and other global health institutions that the main role of the public sector is stewardship. “Stewardship encompasses the tasks of defining the vision and direction of health policy, exerting influence through regulation and advocacy, and collecting and using information” (WHO 2000d, p. 117). Most African governments still see their primary responsibility for the health system as delivering health services. The transition from a ministry of health charged with managing hospitals and health centers and staffed primarily by clinicians, nurses, pharmacists, and laboratory technicians to one appropriately staffed and charged with ensuring equitable and sustainable financing, and regulating and overseeing the broader health system, will no doubt continue beyond the next decade in most African countries. Yet this is a transition many health ministries are beginning to anticipate through sector reforms.

African governments are gradually starting to separate service provision from their responsibilities for policymaking, planning, financing, purchasing, monitoring, regulating, and informing the public on health matters. Increasingly, client countries are seeking the Bank’s support in making hospitals autonomous, delinking medical staff from the civil service, and engaging in contracts and grant agreements with districts and with private health care providers (primarily religious institutions). The private sector is also attracting more attention from governments and development assistance agencies. African governments increasingly view it as a partner in the delivery of health services and recognize that it can expand or complement limited public sector capacity.
Strengthening public health systems is critical to ensuring effective and efficient health care delivery to the poor

While this statement may seem at odds with evidence suggesting that up to half of all health services in Africa are sought within the private sector, the bulk of those services are medical services. Private hospitals and for-profit clinicians are rarely found in rural areas, and the emphasis of the for-profit private sector (private clinicians, traditional healers, and drug peddlers) is on personal curative health services. The public sector and religiously affiliated facilities are the main suppliers of basic services such as immunization, maternity care, family planning, nutrition counseling, vector control, health education, treatment for tuberculosis, prevention of HIV/AIDS, and prevention of micronutrient deficiencies. However, because many Africans visit private providers before they seek care with public providers, immense potential exists for the private sector to expand coverage rates for some important interventions, such as oral rehydration therapy for diarrhea in children.

Across the Africa region, health services categorized as “best buys” are still primarily delivered by the public sector. However, the longstanding belief that the public sector serves the poor more than the private sector does has recently been undermined by benefit-incidence analyses that show the extent to which the public sector disproportionately serves the nonpoor. This bias—explained by costs, care-seeking behavior, and geographical access—highlights the fact that exclusive public sector service provision is unlikely to improve health outcomes among poor people. Economists often assume increased efficiencies in private provision of services over public provision, but governments have legitimate concerns about private sector quality in the absence of effective regulatory systems across the continent. It is clear that effective private health care would require capable government stewardship.

As the private sector emerges, the public sector must be able to define policy, set service delivery standards, ensure equitable and sustainable financing, outsource the delivery of interventions, and regulate private providers. Initiatives to improve organizational frameworks for public sector service delivery in Africa have included decentralizing services, improving the organization of priority public health functions, strengthening referral systems, increasing hospital autonomy, and moving toward sustainable subsidy systems in which the government or its public social insurance structure provides subsidies to private sector health care
providers (physicians, nurses, healers) or institutions (hospitals, clinics, industry, agricultural companies, foundations, schools).

The structure of health ministries can be more effective

Africa’s health sector reform and development programs often involve reorganization of the ministry of health. Fundamental changes are often required in most business processes: financial management, budgeting, personnel management, and performance management systems. While most ministries require some restructuring, such initiatives are often undertaken without feasibility analysis or without even ascertaining that structure is the problem. Reform efforts often create new government structures or parastatals—drug regulatory agencies, separate pharmaceutical management entities, and entities charged with the oversight of service delivery, such as the Ghana Health Service and Zambia’s Central Board of Health. They also tend to integrate the management of vertical programs by, for example, charging a single child health office with immunization, control of diarrheal disease, and treatment of acute respiratory infections.

Integration clearly aims to avoid the confusion, competition and conflict that result from duplication and overlapping responsibilities. Industrial countries have many specialized agencies, but the constrained resources of poorer countries warrant more selective use of such agencies and, more importantly, clearer definition of roles. Thinly stretched African health ministries less often favor the establishment of separate bureaucracies to manage specific disease control programs.

Decentralization must be managed carefully

The World Bank often supports the decentralization of government institutions, and the WHO has long supported the decentralization of certain health system functions to the district level to ensure greater responsiveness to local needs (box 5.6). Today, African governments are driving the decentralization of health ministries with public sector reform initiatives or specific health sector reforms, but the pace is often too rapid to allow attention to the factors that determine success or failure, such as building the fiscal architecture to decentralize financial authority, developing capacities to assume new responsibilities, and explicitly assigning responsibility. A lack of clarity often allows important public
health functions to fall between the cracks. Weaknesses at the center may be a reason for decentralization, but decentralizing activities to lower levels will be effective only with strong complementary action from national and international institutions to address weaknesses at all levels (Berman 1995).

As decentralization progresses, some responsibilities and authorities will be more appropriately managed at the national level. In Uganda and Zambia, district services are guided by a centrally defined package of essential services, but districts can argue for modification of the package to local circumstances. In Uganda local governments have been given authority to hire and fire devolved personnel, and there has been an authentic delinking of local government staff from national civil service. However, the political dimension of public sector health workers has ensured centralized authority over salaries, benefits, and employment conditions, and this fundamentally constrains options for health sector reform (such as devolution to the private sector and contracting out) and limits local human resource management.

Decentralization of financial aspects is particularly difficult. The Kenya Sexually Transmitted Disease Project established a task force to investigate decentralization issues; it found that mechanisms for financial decentralization were insufficient (World Bank 1995b). The Madagascar Second Community Nutrition Project encountered problems with the flow of funds to the regional offices and special account issues (World Bank 1998a). The Mali Health Sector Development Project focused on

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**Box 5.6 Health sector decentralization has potential advantages**

- A more rational and unified health service that caters to local preferences.
- Better implementation of health programs.
- Less duplication of services, as the target populations are more specifically defined.
- Fewer inequalities between rural and urban areas.
- Cost containment from moving to streamlined targeted programs.
- More community financing and involvement of local communities.
- More integration of activities of different public and private agencies.
- Better intersector coordination, particularly in local government and rural development activities.

*Source: Mills 1990.*
measures to smooth the flow of funds to regions and districts (World Bank 1998b). In the Senegal Integrated Health Sector Development Project, mobilization of recurrent budget resources for regional and local levels was delayed due to administrative problems at central ministries (Interior and Finance) (World Bank 1997b). In Ghana, Uganda, Zambia, Senegal, and Tanzania, district grant-making is a quasi-contractual mechanism for transferring resources to districts while holding them accountable for delivery. One requirement for successful decentralization is that financial and administrative systems be in place at the local level.

Critical issues and potential bottlenecks associated with decentralization in Sub-Saharan Africa include:

- The relationship between the ministry of health and its provincial and district offices
- The relationship between the ministry of health and the interior ministry’s provincial and district authorities
- The relationship between the ministry of health and the ministry of finance’s decentralization policies, practices, and modalities
- Ownership of, and responsibility for, maintenance of decentralized health infrastructure
- Relationships between the national and local governments and NGOs operating at local and decentralized levels
- Authority over the allocations to hospitals in the districts or provinces, especially large hospitals

Some governments try to increase efficiency and accountability by making public hospitals autonomous

As with decentralization, efforts to improve the efficiency and equity of hospital services (the stated aim) through making hospitals more autonomous have met with limited success. Such efforts have been undertaken in many Anglophone countries, replicating reform initiatives by the UK’s National Health Service (Preker and Harding 2003). In Francophone Africa similar efforts have been implemented in Burkina Faso, Burundi, Chad, and Senegal.

While governments have numerous incentives to move toward hospital autonomy, including increased efficiency, improved quality of care, and better accountability, the real motivation for hospital autonomy has often been financial, because tertiary hospitals are a huge drain on
the human and financial public resources allocated to the health sector. In Ghana and Senegal, the need to increase salaries and provide better incentives for hospital staff was also an important motivation for hospital autonomy. Thus far, governments have relied on legal mechanisms to institute autonomy: making the hospital legally independent (Kenya); placing it under an independent board of directors (Ghana, Kenya, Zimbabwe, Senegal); excluding employees from civil service rules (Kenya, Senegal); allowing the hospital to operate its own bank accounts (Ghana, Kenya, Zimbabwe, Senegal); and allowing the hospital to generate revenues and retain discretion over the use of surpluses (Kenya, Zimbabwe, Senegal). In reality, due to the weak capacity of hospital managers and the desire of ministry of health’s central managers to retain power over the use of resources, many autonomous hospitals have informally remained extensions of the government, with continuing intervention by the ministry of health (for example, in Senegal the chair of the board of directors of each regional hospital is the president of the regional decentralized elective body).

The continuing relationship of the ministry with such quasi-autonomous facilities, combined with limited experience and capacity in managing an autonomous institution, has in many instances increased rather than reduced public expenditure on these facilities. Making hospitals autonomous requires more than just rules on paper; it requires new institutions, new or reformed personnel, enhanced skills, and innovative methods of management. It also demands that hospital management accept accountability along with new authority. But hospital autonomy is a means to an end, not an end in itself; if government can make the tough decisions that will lead to service delivery improvements within their existing organizations, making hospitals autonomous may be unnecessary (box 5.7) (Chawla and others 1996).

**Overall health sector capacity depends on management and leadership capacity**

Overall health sector capacity is a function of manpower, skills, organization, financing, and material resources, as well as leadership and work practices (Orbach 1999). Addressing constraints on political and professional leadership, organization, and work practices—the system’s management capacity—is as important as getting the institutions right. It requires producing and retaining motivated, qualified staff, ensuring the
availability of pharmaceuticals and medical supplies, and investing wisely in infrastructure (Haskett, Sasser, and Schlesinger 1997; Heifetz 1994; Kotter 1996). Bank staff—who themselves need to analyze the policy environment—can encourage client countries to undertake political mapping to identify which actors support and oppose the proposed policies, understand their perspectives, and devise strategies to alleviate concerns and achieve consensus (box 5.8).

Critical capacities for ministries of health in health planning and policymaking have become even more vital in the context of poverty reduction strategies (PRSs) and the debt relief provided under the Heavily Indebted Poor Countries Initiative. Realistic capacity is required to inform national priority setting, resource mobilization, resource allocation, and financial management, as well as to guide them from a health, nutrition, and population perspective. The ministry of health should be able to lead efforts across all sectors to improve health, nutrition, and population outcomes. This calls for the expansion of skills in government and among development partners, including policy analysis, political mapping, negotiation, and consensus building. Obtaining these new capacities will require not only the provision of training, but also the development of new perspectives on the health ministry’s role and mandate, as well as robust systems and procedures. In addition, a broader range of national partners is needed, including other government departments, universities, NGOs, local consulting firms, industry, and powerful cultural and community groups, including

**Box 5.7 Hospital autonomy differs from privatizing**

Some hesitation in making hospitals autonomous relates to the perception that autonomy is equivalent to privatization and that the facility will no longer retain its public sector mandate of serving the poor. However, granting autonomy and privatizing are very different actions. In fact, existing autonomous public facilities generally continue to be owned by the public sector and have to obtain government approval to change fees schedules, expand the range of services offered, or make investments in infrastructure and equipment.

Beside providing health services, public hospitals provide some social welfare that is not easily measured in assessing performance and difficult to factor into agendas for systems strengthening. In rural settings, public hospitals often effectively act as the local health insurance scheme, and they cannot eliminate services that are not breaking even if those services are demanded by the local community. Public hospitals are also usually the only large teaching institutions for clinical training.

To support activities that strengthen public hospitals, the environment in which they operate must be understood. Some alternatives to autonomous hospitals may be feasible in the African context, including decentralized authority for hospital management and contracted private management.
Some Bank projects have attempted to build management capacity. For example, the Bank-financed Niger Health Project (World Bank 1986) determined that inadequate management and institutional capacity constrains good sector performance more than resource availability does. A few countries (Niger, Burkina Faso, Uganda, and Côte d’Ivoire) have piloted versions of district-level performance-based management systems to strengthen accountability for system performance and create incentives for staff and management to begin to identify and resolve systemic constraints.13

**Box 5.8 Health reform is intensely political**

While political will at the highest levels is crucial for change, ownership must be felt throughout the entire system. Stakeholders will be found both inside and outside the system. Securing partnerships with other government ministries is important (Guinea), as is securing the backing of political parties.

Vertical program managers should be engaged early on, before policy changes that affect their authority and control of resources are implemented (see, for example, Mali, Congo, and Senegal). Professional interests (physicians, nurses, pharmacists) are potential sources of powerful opposition, and their reactions to changes should also be considered carefully. No health sector reform will work without the willing collaboration and buy-in of the medical and health professions at the heart of the system. While improvements to their working conditions would be welcomed by most, many potential problems with reforms exist, including increasing workloads without increasing pay; implementing new treatment protocols and standards that may inhibit current service provision practices (Congo); introducing community participation that may be resisted by providers (Guinea, Senegal); and delinking health workers from the civil service, leading to job and pension uncertainty and interference with political patronage systems (Zambia, Mali). Donor agencies are also key stakeholders, and when more than one donor agency is involved, donor politics can drive the change process.

The private sector can play an important role in service delivery

Any attempt to define an appropriate role for the private sector must appreciate the diversity of private health care providers in Sub-Saharan Africa. Strategies should recognize the potential contributions of the wide range of institutions, organizations, and individuals providing health services and consider specific mechanisms of engagement (table 5.4).
Table 5.4 Africa has several types of private providers

<table>
<thead>
<tr>
<th>Type of provider</th>
<th>Formal</th>
<th>Informal</th>
<th>Type of service provided</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>For-profit</strong></td>
<td>• Physicians, nurses, midwives, and dentists operating private practice</td>
<td>• Traditional healers</td>
<td>Mainly personal care</td>
</tr>
<tr>
<td></td>
<td>• Licensed pharmacies</td>
<td>• Traditional birth attendants</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>• Drug peddlers</td>
<td></td>
</tr>
<tr>
<td><strong>Not-for-profit</strong></td>
<td>• NGOs</td>
<td>• Community health workers</td>
<td>Personal as well as public health services</td>
</tr>
<tr>
<td></td>
<td>• Religiously affiliated hospitals and clinics</td>
<td></td>
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</tr>
</tbody>
</table>

Many households first seek care from informal for-profit providers

Traditional medicine is an important health care resource in every Sub-Saharan African country. WHO has estimated that up to 80 percent of Africans rely partly or solely on traditional medical practitioners. Many seek care from both traditional and modern practitioners in parallel (Fournier and Haddad 1995; WHO 2002d). African traditional healers mirror the great variety of cultures and belief systems and possess equally heterogeneous experience, training, and educational backgrounds. They share the same culture, beliefs, and values as their patients (South Africa Medical Research Council 2003). They are by far the largest body of private health providers in the region, often outnumbering doctors 100 to 1 (figure 5.6)—Botswana has 650 physicians and 60,000 traditional healers (WHO 2002d). Traditional birth attendants (TBAs) still provide the largest portion of obstetric services in the region.

Many maternal and child health projects have trained TBAs to perform safe deliveries, identify high-risk pregnancies, and refer clients for hospital care when appropriate, but evidence on whether trained TBAs improve maternal and infant health outcomes is debatable (Dehne, Wacker, and Cowley 1995; Minden and Levitt 1996; Smith and others 1997). Many trained TBAs do not receive follow-up supervision, or they lack sufficient links with referral services (Kamal 1998). Access to emergency obstetric services is essential to reducing maternal mortality, and hygienic birthing practices do not necessarily reduce postpartum infection (Goodburn and others 2000).

Traditional healers have also been incorporated into programs to provide TB care (Wilkinson, Gcabrashe, and Lurie 1999), to provide oral
rehydration therapy as treatment for childhood diarrhea (in Swaziland), and to treat severe malaria in children with rectal artesunate suppositories (northern Ghana). In Ghana and Ethiopia the Bank is helping traditional healers to establish associations that represent their local needs. Registration of healers and TBAs could provide health ministries with reliable data on the number of healers, the type and area of specialization, the patients treated, and the links with government facilities.

**NGOs and religious providers sometimes cover up to half the population**

In many African countries, religiously affiliated providers (dispensaries, health centers and hospitals, and in some countries even medical and nursing schools) account for the bulk of the formal care provided by the private sector. Religiously affiliated hospitals and clinics account for nearly 50 percent of all health facilities in Tanzania and for 40 percent in Cameroon and Uganda (Berman 1995). An estimated 64 percent of formal health services in Uganda are provided by NGO health facilities, and the figure is probably higher in poor rural areas. In many countries in the region, these nongovernmental facilities depend on the public sector for subsidies, personnel, supplies, and maintenance of infrastructure (box 5.9).

Because not-for-profit private health care facilities are often located in underserved areas, governments recognize that they can complement the public sector’s efforts to reach the poor. In many settings they therefore operate effectively as parastatals. Across Africa these institutions view
their role as closely aligned with those of public sector institutions, so they are often the first private sector partners to be included in health sector reforms.

**Although expanding, formal private-for-profit medical care remains limited in Africa**

The strength of the for-profit private sector in service delivery varies significantly across Sub-Saharan Africa. In Zambia, only 0.2 percent of beds are in the private for-profit sector, while 25 percent are in the not-for-profit sector (Bennett, McPake, and Mills 1997). In Kenya, however, 23 percent of health facilities are private for-profit facilities, and 18 percent of immunizations are privately provided; 94 percent of these facilities are below health-center level (compared with 79 percent in the mission sector and 60 percent in the public sector). In South Africa, where the private sector is most developed, 45 percent of public hospital beds and 63 percent of private hospital beds are in metropolitan areas. In Ghana 53 percent of private hospitals and clinics are in the country’s two main cities, and one-third of private maternity clinics are in Accra. The private sector has steadily grown in African countries with changes in the laws governing private practice. By 1999 in Zimbabwe more than 50 percent of registered physicians were working full time in the private sector, and 56 percent of them were based in Harare. Tanzania began to encourage private provision of health care in 1991 (it had been prohibited by law since 1977). Between 1991 and 1996 there was a 36-fold increase...
in the number of private-for-profit dispensaries, and the number of for-profit hospitals increased fivefold.

The role of the formal for-profit private medical sector in Africa remains limited due to low access to capital, the absence of health insurance, and unsupportive policy environments. With no meaningful private insurance and limited contracting-out by the public sector, the financing for private services remains mostly out of pocket through fees for service.

**Governments are beginning to delegate service delivery to the private sector**

The private sector can complement finite public sector expertise, implementation capacity, and absorption capacity—all constraints on getting to scale with efforts to improve health outcomes among the poor. A more effective role for the private sector—NGOs and mission facilities, as well as the for-profit formal and informal sectors—can be achieved by encouraging the public sector to outsource certain functions. Initiatives that foster the private sector’s contribution to national health objectives include contracting with private providers to deliver public health services (Berman and Hanson 1993; Hursh-César and others 1994), engaging them as part-time employees in the public sector, and providing them with vaccines, micronutrients, or medicines for tuberculosis. Public health training programs for HIV/AIDS care, DOTS, IMCI, and reproductive health have included private practitioners.

Some health sector reforms in the region operate on the principle that the wealthier segments of the population can be served by the private sector, leaving the government to focus its efforts and limited resources on the poor. To expand the public-private mix of care delivery and increase access to care, the Zambia Ministry of Health is piloting a social franchising initiative (ZamHealth) to establish private, not-for-profit, low-cost, high-quality outpatient primary health care facilities (Partnerships for Health Reform 1998; Ruster, Yamamoto, and Rogo 2003). In Chad, hospitals belonging to NGOs (most, but not all, mission facilities) have a contract with the government to provide the complementary package of health activities defined in the National Health Policy. The government then provides some or all personnel, training, equipment, and drugs. Senegal and Madagascar experimented with contracting out nutrition services to NGOs and community-based organizations, and in
both countries rates of severe and moderate malnutrition came down significantly in the target areas. Both projects scaled up to the national level after the pilot phase (Waters, Hatt, and Peters 2003).

Some efforts have been made to collect the experience and lessons in contracting out ancillary services (laundry, catering, cleaning), contracting with specialist firms to undertake certain public health services, and hiring private sector firms to manage public sector facilities (WHO 1998a). Efforts have also been made to engage the commercial sector in increasing access to public health products and employing marketing techniques to create demand for products and services (box 5.10).

All of these approaches can be employed to expand expertise, implementation capacity, and absorption capacity, but government’s capacity to design appropriate programs, contract out activities, and monitor their effective implementation demands attention. Ministries of health in Africa have limited experience in contract management, grant making, and effective grant oversight and supervision (Bennett and Mills 1998).

**Government oversight becomes more important as the role of the private sector increases**

The recent growth of private for-profit providers and private training institutions, along with the high incidence of seeking care from traditional healers, unlicensed drug vendors, and small retail shops, raises concerns about appropriateness and quality of care, but many Sub-Saharan countries suffer from weak regulatory mechanisms and lack explicit standards. The weakness of accreditation mechanisms, accountability, and regulatory frameworks, combined with the usual information

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**Box 5.10 The private sector has an advantage in promoting behavior change**

“The ability to plan and use communication effectively for behavioral impact in development programmes calls for a special expertise not readily available in the public sector. By comparison, the private sector has a rich tradition of marketing, promotion, consumer communication and a demonstrated track record of changing personal behavior.”

*Source: WHO 2002b.*
asymmetry between medical providers and patients, makes for a milieu of risky services that range from the unpredictable to the ineffective to the downright harmful. Experience suggests that common features are likely to constrain the effectiveness of regulation in Sub-Saharan countries: the lack of information, the limited institutional capacity of government, and the weakness of national professional associations and consumer and media organizations.

Government capacity to provide oversight and regulation is weak, but some initiatives are beginning to build it. Numerous reform strategies in Africa include commitments to set service standards for defined packages of care, for diagnostic and treatment algorithms, for prescription guidelines, for staff qualifications, and for infrastructure and equipment specifications by level of facility. The application of such standards in both the private and the public sector would be facilitated by their adoption by professional associations (as has been the case with the Health Professionals Council of South Africa), in grant agreements and performance contracts, and beyond the public sector through memorandums of understanding or agreements between private religiously affiliated facilities and districts.

Several international partners are working with African countries on quality assurance initiatives, including accreditation and licensing. The role of professional medical, nursing, and pharmacy associations is particularly important in this, because peer recognition and client perception can influence provider behavior more cost-effectively than government enforcement. In 1997 Zambia became one of the first countries in the region, after South Africa, to launch a national hospital accreditation program (Bukonda and others 2000). Tanzania’s new National Health Insurance Fund is accrediting private providers to deliver services to members.

Several African countries (such as Nigeria and Tanzania) are beginning to address private sector pharmaceutical issues (prescribing, counterfeit drugs, corruption) through drug regulatory authorities. In Kenya, educating pharmacists on malaria and diarrhea led to better advice to clients and more appropriate sales by pharmacists (Ross-Degnan and others 1996; Tavrow, Shabahang, and Makama 2003). The Strategies for Enhancing Access to Medicines Project worked with the Tanzania Food and Drugs Authority to accredit private drug dispensing outlets (box 5.11).

Effective regulatory frameworks are essential for insurance schemes or other risk-pooling mechanisms that reimburse private providers. Experience shows that it is more difficult to implement legislation for
private health insurance, including community-based financing, once the industry is well established.

**Household and community factors also affect system effectiveness**

Lack of effective demand is one of the greatest challenges to increasing coverage with cost-effective interventions. Many Africans never encounter the formal health care system during their lives, and the failure to use essential health services suggests that general economic assumptions regarding supply and demand do not apply. People do not demand care for numerous reasons:

- A lack of knowledge of when to seek care, such as not recognizing dehydration as a sign of illness
- Superstitions about the causes of disease, or beliefs that no medical treatment is available (convulsions in children are often viewed as a curse)
- A low value placed on preventive services, such as immunization or prenatal care
- Little confidence in the system, which does not treat patients, especially poor ones, well

All this means that medical need (as identified by health specialists) significantly exceeds demand (as manifested by the care-seeking behavior of patients).
Effective demand is further reduced by patients’ reactions to the cost of transportation, the cost of services, the necessary waiting, and the distance to facilities, as well as their perceptions of low service quality. On the other hand, the presence of drugs (or staff) has been shown to dramatically increase use of public facilities. However, with only 35 percent of children with a fever taken to a health facility in Malawi (National Statistical Office [Malawi] and ORC 2001), and only 43 percent of those with symptoms of a respiratory infection seen by a health worker in Mali (Mali CPS/MS, DNSI, and ORC Macro 2002), it is clear that resolving the constraints related to staffing, organization, and pharmaceuticals alone will not improve outcomes.

Sector development strategies often rely on unfounded assumptions about behavior and are then frustrated by poor results. The appraisal of these strategies provides an opportunity for Bank staff to assess the assumptions, to enlist the expertise of partners, and to discuss whether alternative strategies should be considered for achievement of the desired outcomes. Although the effect of knowledge and behavior on demand, and the effect of quality on use, are widely recognized, the relationship among knowledge, quality, demand, and need in African circumstances remains only partly understood. Ministries of health and many development partners do not understand that the increased provision of health services does not necessarily translate into the increased use of services.

Estimates of costs, and thus financing gaps and investment requirements, are extremely sensitive to assumptions of demand and use, so extreme care should be taken not to equate epidemiological estimates of need with estimates of input costs and financial need: that all children under six will require vitamin A supplements, that the number of pregnancies is equal to antenatal care needs, or that incidence of childhood pneumonia determines the estimated referrals. Finding appropriate coefficients in the equations translating need, demand, and potential use into realistic costs and financing requirements remains one of the more important challenges for most health ministries in Africa.

**Strategies can affect community demand, ownership, and engagement**

Many examples of community participation improving health outcomes are available. Communities have organized to provide transportation for high-risk mothers who have been told they should deliver in a hospital.
They have created small risk-pooling schemes to cover unanticipated medical costs, established child care and feeding centers to address malnutrition, compensated poorly paid health workers, provided accommodation, and repaired facilities. They have demanded improvements in health services, raising the accountability of the public sector to the public (Reinikka and Svensson 2003).

The strategies that have proven effective and the lessons that have been learned across Africa could aid governments and their partners in designing and implementing strategies that will increase use. Latent demand for contraceptives and bednets and for treatment of sexually transmitted diseases, dehydration, and childhood pneumonia have been successfully translated into higher use rates, with changes in health worker attitude, partnerships with traditional healers or community leaders, better control of drugs and supplies, community-based distribution, and mass media campaigns. Lessons from community-based programs on river blindness, vitamin A, trachoma treatment, and family planning demonstrate that community-based action can affect coverage and use (figure 5.7).

Community-driven development (or CDD, as it is known within the World Bank), including social funds, can complement the more formal supply-driven efforts to provide health services. It can promote local ownership, increase accountability, and reflect community preferences in

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**Figure 5.7 Community-directed treatment can improve control of onchocerciasis, schistosomiasis, and lymphatic filariasis**

![Graph showing coverage of regular health services treatment and community-based treatments in Ghana and Kenya](image)

designing, implementing, and sustaining effective health service delivery strategies.

However, the lack of knowledge of cost-effective health and medical interventions is a concern even in highly educated populations. Many community initiatives promote questionable, or even harmful, activities believed to improve health. A common example is communities engaging in efforts to clear brush or grass to reduce the transmission of malaria, which in most of Sub-Saharan Africa is not effective. Communities have also been frustrated when they have constructed health facilities on their own initiative because the government then could not support the facilities with staff and drugs. Such community-driven health activities need to be linked to the formal health system to ensure their effectiveness, support supervision and referral, and provide access to staff, drugs, and medical supplies.

The World Bank does not have a strong comparative advantage in health education, training providers, or behavior-change communication strategies. However, the Bank can help client countries consider how different institutional and organizational frameworks, system capacities, and regulatory interventions—as well as financing and payment mechanisms (addressed in the next chapter)—can foster appropriate care seeking, increase demand for services, and affect supply-side provider behavior. The Bank can also encourage clients to seek support from partners who have comparative advantage and credibility at the local and community levels—such as the United Nations Children’s Fund15 or numerous NGOs—in developing strategies that will affect household behavior and engage communities in improving health systems and health outcomes.

Conclusion

The effectiveness of interventions to prevent and treat disease and malnutrition and improve reproductive health depends, more than any other factors, on mitigating or removing systemic weaknesses. The World Bank has a comparative advantage in its ability to support client countries in identifying strategies that can strengthen the ability of their health systems to deliver. The greatest challenges that face health systems in Sub-Saharan Africa today relate to human resources, organizational frameworks, pharmaceuticals, public-private partnerships, and the household and community response.
Neither the World Bank nor the global health community has simple solutions to these many challenges, but, as noted above, African health systems are themselves trying to identify local solutions. The World Bank and other partners can help ensure that those local solutions are informed by global and regional experience, that they build on a solid analytical base, and that they are closely monitored and evaluated so that approaches are modified when desired outcomes are not achieved and successes are shared across the region. The Bank can provide support through its work on public sector and civil service reform, the advice it provides to countries on privatization and decentralization, its access to decision-makers on industry and trade policies, and its role in the WTO.
Sustainable Financing of Health, Nutrition, and Population Interventions

African client countries and international development partners expect the Bank to contribute global knowledge and to advise on policy related to financing health, nutrition, and population services, and also to influence resource allocation decisions through analyses such as expenditure reviews. The challenges involved are significant. Most African countries lack adequate financing for health. There is no global or regional consensus on which resource allocation and purchasing strategies best protect households from impoverishment while improving health outcomes, nor on how to ensure that the available financing is allocated efficiently, effectively, and equitably. Even so, countries in the region are undertaking a range of strategies intended to improve the use of financing for health: moving to sectorwide approaches, conducting sector expenditure reviews, initiating social insurance schemes that contract service delivery, and forging partnerships with other countries to improve economies of scale.
Spending on health, nutrition, and population is lower in Africa than anywhere else

Total health expenditures in Sub-Saharan Africa (excluding South Africa) average 6.0 percent of GDP and US$13 per capita per year, compared with 5.6 percent and US$71 per capita per year in other developing countries, and 10.2 percent and US$2,735 per capita per year in developed countries (World Bank 2003g). Health, nutrition, and population goods and services are financed primarily by households, central government revenues, the private sector, and external development assistance (grants, loans, in-kind goods, or technical services); they are channeled through the ministry of health, other ministries, and local government, as well as formal and informal pooling mechanisms (figure 6.1). A large share of spending is by households and is not managed by any intermediary; out-of-pocket payments are spent directly in the formal private sector and the informal sector or for user fees at public sector facilities (figure 6.2).

Public expenditure for health plays an important role

In the 18 poorest African countries1 (with 53 percent of the region’s people), governments on average spent only US$2.10 per capita for health (from US$0.10 to US$4.30, or about 0.05 to 2 percent of GDP) in 2000.2 With external development assistance, this rises to an average of US$4.50 per capita (from US$2 to US$6), but still falls significantly short of the minimum amount required to deliver basic health services (World Bank 2002d; WHO 2002e).3 An additional 19 countries with a GNP per capita below US$885 on average spent less than US$5.80 per capita or 1.6 percent of GDP (from US$1.40 to US$21.40, or 0.4 to 4.8 percent of GDP) in 2000. Together, these 37 countries account for 86 percent of the population of Sub-Saharan Africa (World Bank 2003f; WHO 2002e).

Although revenues are extremely limited, the share of public expenditure allocated to health could be increased in many of these countries. At the Abuja Summit of Heads of State and Government of the African Union (formerly the OAU) on HIV/AIDS, tuberculosis, and related infections in April 2001, participants pledged to set a target of allocating at least 15 percent of their annual budget to the improvement of the health sector (Chanda and Goujon 2001), up from 5 percent or less in many countries.4
Increases in the proportion of total public expenditures allocated to health have been associated with health reforms across the region, and with debt relief to heavily indebted poor countries (the HIPC Initiative). In some sectorwide programs, or SWAps, the government has promoted and even required higher budget allocations to the health sector (as in Ghana and Senegal). Attention to expenditures under SWAps has also enabled partners to track actual allocations to and within the sector, and
to hold governments accountable for stated commitments. Even so, public expenditure reviews and national health accounts often reveal wide disparities between published public sector budgets and actual spending.

As discussed in chapter 3, poverty reduction strategies can improve the allocation of public expenditure and external development assistance, if health, nutrition, and population are recognized as inputs to poverty reduction. Yet ministry of health staff and their advisors seldom appreciate how financing decisions are made, and they are often unable to make a persuasive case for additional resources to ministries of finance or economic planning. Strengthening the capacity of ministries of health to influence public sector allocations, particularly in the context of poverty reduction strategies, is one way for the Bank to increase public expenditure on health. Bank macroeconomists and country directors and IMF staff can assist in ensuring that their counterparts in central ministries recognize how investments in health can contribute to economic growth and poverty reduction.

The HIPC Initiative could significantly increase public spending on health. In return for debt relief, beneficiary countries are obligated to adopt sound economic management and poverty reduction policies, with an emphasis on basic social services (health and education). An explicit expectation is that additional public resources will be allocated to these
priority sectors. However, a significant risk exists that additional resources will not achieve their potential under the existing inefficient and inequitable budget allocations and service delivery systems. Early experience warns of the additional risk that ministries of health will not be able to quickly absorb the large additional resources made available, and that finance ministries will thus redirect resources elsewhere. The Bank has a responsibility to propose solutions to these problems, track allocations to the sector, and assess the results of HIPC financing in the social sectors.

**Households expend significant resources on health care**

The majority of poor Africans live in rural or peri-urban areas and are employed outside the formal sector. This limits their ability to generate regular cash income or to participate in employer-based insurance. As a result, risk-pooling is generally restricted to the household, extended family, or local community. Without subsidized care, poor households and communities risk impoverishment from serious illness and are discouraged from using services that could readily prevent death and disability.

Out-of-pocket payments in the form of fees (formal or informal direct payments to medical providers at the time of service) and payments for goods (medicines or other health products, such as condoms, bednets, or soap) are the main channels for households to contribute to financing health care. The use of prepayment schemes or community-based insurance is still very limited across Sub-Saharan Africa. Debates over fees charged by public sector health facilities tend to focus on whether households should pay for health services, rather than how they pay for health services. Household spending on health is a fact, whether fees are explicitly charged by the public sector or not. Out-of-pocket expenditure ranges from around 20 percent of total health expenditure in Mozambique (where fees are charged) to around 50 percent in Sierra Leone (where fees are not charged), with a regional mean of 30 percent (table 6.1) (WHO 2002e).

The large amount of private expenditure—between US$0.50 and US$21 per capita per year in 2000 in the 38 poorest African countries—is often cited as evidence that the resources to finance essential services are available. However, this is mainly unpoled spending on self-treatment, over-the-counter medicines, and informal providers, and is not
readily reallocated to essential health services. Household expenditures accounted for 22 percent of total health expenditure in Zambia, 73 percent of which went for medicines (Bennett, McPake, and Mills 1997). Community-based insurance or prepayment schemes can offer alternatives to poor households, and information can help them to make better spending decisions.

**External development assistance can be more effective**

The amount of development assistance to Africa for health declined in the 1990s (OECD 2001), but the importance of aid flows for health in Sub-Saharan Africa is striking: US$1.0–1.5 billion, or 5–10 percent of total estimated health expenditures (OECD 2002a). The region receives the largest proportion (38.5 percent) and the highest per capita amount (estimated at US$2) of quantified global development assistance for health (figure 6.3) (OECD 2001, 2002a; World Bank 2003f). In 2000, external assistance to several countries (including Comoros, Eritrea, Malawi, Mauritania, Mozambique, São Tomé & Principe, and Uganda) provided half or more than half of total government health expenditure (WHO 2002e).

Financing from the World Bank represents 17–18 percent of total development assistance for health (DAH) in Sub-Saharan Africa (OECD 2003). Sixty percent of all the Bank’s health, nutrition, and population

<table>
<thead>
<tr>
<th>Country</th>
<th>Year</th>
<th>Fees as % of MOH recurrent budget</th>
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<tbody>
<tr>
<td>Benin</td>
<td>1993</td>
<td>20</td>
</tr>
<tr>
<td>Guinea</td>
<td>1993</td>
<td>20</td>
</tr>
<tr>
<td>Burkina Faso</td>
<td>1999</td>
<td>14.8</td>
</tr>
<tr>
<td>Lesotho</td>
<td>1992</td>
<td>9</td>
</tr>
<tr>
<td>Mauritania</td>
<td>1999</td>
<td>9</td>
</tr>
<tr>
<td>Côte d’Ivoire</td>
<td>1993</td>
<td>7.2</td>
</tr>
<tr>
<td>Ghana</td>
<td>1991</td>
<td>5–6</td>
</tr>
<tr>
<td>Guinea-Bissau</td>
<td>1995</td>
<td>5</td>
</tr>
<tr>
<td>Senegal</td>
<td>1990</td>
<td>4</td>
</tr>
<tr>
<td>Zimbabwe</td>
<td>1992</td>
<td>3.5</td>
</tr>
</tbody>
</table>

projects are in this region (figure 6.4). Other leading sources of development assistance for health include the African Development Bank, the European Commission, and bilateral assistance from the United States, France, Great Britain, Sweden, Denmark, the Netherlands, Canada, and Germany.

The 2001 Commission on Macroeconomics and Health called for dramatic increases in the amount of development assistance for health from bilateral and multilateral development assistance agencies.8 The commission also called on the World Bank to move such support from credits (the concessional loans available to most Sub-Saharan countries9) to grants (box 6.1). The commitments of International Development Association (IDA) financing for health in Sub-Saharan Africa, whether grant or credit financing, could be increased significantly. Few countries exhaust their IDA allocations, and most are receptive to borrowing on IDA terms for health. Among the factors limiting an increase in the amount of IDA committed for health are the Bank inputs (staff time and travel) required to work with client countries to prepare programs for support, and slow disbursements against existing IDA commitments.
Absorptive capacity is constrained by onerous procedures and bureaucracy (both the recipient government’s and the Bank’s), as well as shortages of health sector staff and effective management systems. Through 2001, 68 percent of all completed World Bank health projects in Africa incurred cancellations of unspent commitments totaling about US$229 million; Nigeria had cancellations in all five of its closed health projects, totaling US$135.6 million or about 49 percent of the total Nigerian credit financing for health (Shaw and Hsiao 2003).
The Bank is not alone in encountering slow disbursement of requested resources for the sector: UN agencies and the African Development Bank, as well as many bilateral agencies—with the exception of those managing their own projects directly with external staff—report frustration in moving resources for health. It is a particular challenge for earmarked funds, because the effective use of these funds is often dependent upon other unavailable resources (staff salaries, transport, communications). Absorption is also constrained by the governments’ tendency to hoard resources within the public sector (box 6.2).

Absorption is also affected by the restrictions placed on financing by many development assistance financiers. Generally, development assistance has been available for investment costs, and at times for pilot initiatives, but not for recurrent costs or bringing activities to scale. For this reason, disbursements of development assistance are commonly restricted to training, consultants, technical assistance, equipment, and civil works. Salaries, utilities, supplies, maintenance, and other operating costs are generally considered the responsibility of the recipient country.

The Bank has financed a large share of recurrent costs, most obviously pharmaceuticals and medical supplies under health investment projects. Previously, Bank guidelines for investment project financing specified that, while recurrent costs generally should be covered by the borrower, in special circumstances—generally social sector projects for education, health, and family planning—they might be financed in part by the Bank. In such instances the Bank generally covered only the incremental recurrent cost on a declining basis. In April 2004, the Bank issued a new policy regarding the eligibility of expenditures in World Bank financing. The new policy focuses on the costs required to attain development

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**Box 6.2 Absorption of external financing can be increased by working outside the public sector**

Recognizing that interventions such as those required for AIDS, TB, and malaria cannot achieve the scale required using mainly government and public sector channels, many development assistance partners, such as the Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM), are fostering efforts to expand absorptive and implementation capacity by funding activities outside the public sector.

Bilateral donors and the GFATM can finance nongovernmental organizations (NGOs) directly. Because Bank financing is targeted to governments, the Bank has to convince recipients to outsource activities and engage in partnerships with NGOs, communities, and the private sector. In recognition of this challenge, the MAPs require governments to allocate a large share of the resources to civil society.
objectives, eliminates the need for explicit counterpart financing, and permits expenditures on local and recurrent costs.

A lack of financing for key recurrent costs has often undermined the aims of development assistance for health in Africa, as investments in capital or training generate recurrent cost requirements (new clinics and medical equipment need staff, maintenance, and supplies; new or more highly trained staff must be paid; and piloted initiatives raise expectations that all will eventually benefit). The high level of investment financing supported by development assistance can generate unsustainable recurrent cost requirements. This is one of the explanations for the trend toward pooled financing and budget support under SWAps for very poor countries.

In some recent global initiatives, financing is earmarked for specific diseases or specific inputs, most prominently GFATM and the Vaccine Fund under the Global Alliance for Vaccines and Immunization (GAVI). The Bank can assist countries in monitoring the application and use of these funds at the country level, considering the implications of external resources for total expenditure programs, assessing over time whether these funds appear to be additive or to displace domestic financing (encouraging governments to reduce their support for health or reallocate support away from antimalarials, TB drugs, AIDS prevention, and vaccines), and whether they displace other forms of external assistance (encouraging donors that channel financing through these funds to reduce other financing for development assistance for health).

GFATM allocations could potentially displace IDA financing for health. However, within the Africa region, the Multicountry HIV/AIDS Projects (MAPs) represent the only significant earmarked financing for health. Within other broad sectorwide support programs, budgets can be readily reallocated to other underfinanced activities, as long as the financing constraint is not precluded by the implementation constraint.

Even within countries that receive significant levels of external assistance, Bank financing can respond to financing gaps resulting from limited government financing and extensive earmarking by donors. The severe shortages of resources for the health sector in most of Africa can frequently frustrate the intentions of earmarked external financing, since at the national level domestic monies and external foreign exchange monies are fungible. Either domestic resources will be reallocated away from the externally financed categories (so that, for instance, money for
contraceptives enables the government to hire additional staff, or money for primary health care allows the government to finance new equipment for the tertiary hospital), or, more subtly, many more auxiliary staff will be hired than would normally be required, allowances will be provided for attending training, and supervision trips will include more people for more days to maximize the per diems paid. When employees are not paid a living wage, or when earmarked external resources far exceed the local standards elsewhere within the system, the national system becomes distorted in trying to take advantage of these financial opportunities. Additional resources are then diffused throughout the system and often are not truly additive.

As large amounts of external financing are made available quickly to individual African countries for targeted diseases, some donors have raised concerns about sustainability and about the potential destabilizing effect of these external resources on other sector functions and on foreign exchange, inflation, and the terms of trade.\textsuperscript{13} The GFATM allocation to Malawi for three diseases, for example, exceeded its FY02/03 total health budget. Although more recently the IMF has agreed that additional donor monies can be made available to health, if those monies are believed to represent long-term support, governments in countries such as Uganda and Ethiopia that operate within defined expenditure ceilings will generally not increase the total amounts made available to the health sector, even if additional external financing becomes available (Wendo 2002).

**Other sources of private financing, though limited, can be important**

Other sources of private financing in Africa remain relatively small, but can be significant in certain regions or among certain populations. Large agricultural estates, mines, oil fields, and factories generally finance or provide health care for their employees and their families. Others have established health facilities or engaged in specific agreements with local private or public providers. The greatest challenge for many of these private corporations is preventing and caring for employees with HIV/AIDS, and in several countries with high HIV prevalence they are having to consider financing AIDS treatment for their employees.

Most religiously affiliated private health care providers in the region receive donations, both domestically and from abroad (Christian churches finance health facilities; the Aga Khan hospitals receive support
from the Aga Khan Foundation). NGOs also obtain financing through fundraising. Over the last decade the share of these donations has generally declined, so several of these providers now also depend on public financing and subsidies, as well as on revenues obtained through user fees. At the same time, new private actors such as the Bill and Melinda Gates Foundation and the Clinton Foundation have entered the field, sometimes significantly.

**Countries are employing a range of strategies to manage health financing**

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 health care can increase the availability of limited public financing to assist the poor. Also, when people contribute to their care (whether through salary deductions or direct payment), they are more likely to expect the system to be responsive (potentially improving the quality of service delivery). To date, few examples exist of effective insurance systems that would pool risk and could cross-subsidize health care costs between ill and healthy or between wealthier and less well-off households. In the absence of insurance, many governments collect user fees, which make it difficult to ensure that the poor still seek and receive care. Community financing schemes have often stepped in to fill the gap; they can respond to the needs and abilities of a given community to contribute to the financing of health services, but they also face challenges.

**Effective risk-pooling options remain limited**

For the majority of the rural population in Africa, insurance options are simply not available. Formal and informal risk-pooling and prepayment schemes can provide consumption smoothing, protecting households that encounter unexpected and insurmountable medical costs. The absence of health insurance or other risk-pooling approaches, especially for catastrophic care, contributes to impoverishment as poor African households have to draw down their assets, go into debt, or rely on transfers from other households to pay for costly hospitalization. The absence of insurance is the implicit rationale for highly subsidized (or fully subsidized) public hospital services.
Even health insurance for the formal sector has not yet taken a firm hold. Because the organized sector employs a limited population, assessment and collection of premiums from the majority of the people is difficult. Health insurance systems have high fixed costs and overheads that need to be spread over a fairly large number of participants, and such numbers are not yet available in most Sub-Saharan African countries. Weak or unclear regulatory environments and the high prevalence of HIV/AIDS and its expensive treatment options also discourage private insurance firms from entering the African market.

In many African settings, the confidence required to implement insurance is lacking due to perceptions and practice of corruption or fragmented solidarity associated with ethnicity or tribalism. If people do not trust that premiums paid in advance will actually result in reimbursements when needed (possibly several years later) to the providers of medical care or to patients, insurance will not work. Such concerns have a history in Côte d'Ivoire, Democratic Republic of Congo, Ethiopia, Guinea, Kenya, Nigeria, and Sudan. Nor will insurance work when collectible premiums are small and treatment costs high. In a high burden of disease setting such as the one in much of Sub-Saharan Africa, especially in the light of HIV/AIDS, an insurance fund can quickly go bankrupt. Although some insurance schemes—including community-based ones—have developed, they have relied heavily on external capitalization. Most examples in the region have gone broke within a few years due to weak fundamentals regarding premiums, management costs, and coverage costs. These fundamentals sometimes combine with corruption to bring down health insurance schemes, most recently the National Hospital Insurance Fund in Kenya (Rugene and Orlale 2003; The Standard Limited 2003).

Because national health insurance in Africa is generally a combination of an investment fund and a pay-as-you-go system, its reserves need to be invested. Except for South Africa, where there are good alternative investment instruments and options, most countries in the region lack solid long-term investment opportunities. The Kenya National Hospital Insurance Fund, for instance, made relatively unproductive investments (though this was also due to government regulations constraining its ability to invest in the private sector).

In addition to these challenges, an effective insurance system has to accredit providers, regulate and monitor accredited providers, put hospital fee systems in place, and install information systems to verify
users and patterns of use. The development and maintenance costs of these systems are considerable. Unless significant economic growth occurs (to expand membership and spread these administrative costs), it is doubtful that premium contributions will be able to finance these expenditures. Even with sufficient financing, an effective health insurance market requires a pool of human resources skilled in actuarial analysis, investment and reserve management, provider payment and negotiation, claims processing, and fiduciary regulation, most in very short supply in the region today.

The inflationary and “cream-skimming” tendencies of private insurance have also been demonstrated in Africa, for example, in the private insurance schemes of Kenya, Malawi, South Africa, and Zimbabwe. South Africa enacted legislation to separate not-for-profit medical assistance schemes from for-profit health insurance companies. It is theoretically possible to introduce similar legislation in other African countries with private insurance schemes and budding medical aid societies, but the technical and regulatory requirements are immense, and, given the small role of insurance to date, the result may not warrant such a significant government investment in terms of time and skills.

Several countries in the region are exploring nonprofit insurance schemes to cover the civil service or the formally employed, but mandatory contributions are viewed with suspicion because many African governments have yet to demonstrate their credibility to their citizens and potential fund contributors. Expanding the “health benefit” of social security and pension funds in a number of countries (such as Cameroon, Kenya, Senegal, and Tanzania) may be one option, but health insurance is more complicated, and the poor past financial performance of these pension and social security funds does not augur well for their performance as health insurance funds.

Kenya’s National Hospital Insurance Fund—established in the 1960s as a mandatory, government-managed, employer-based fund that covers inpatient care but not medical services—made little contribution to the improvement of service delivery. If anything, it inadvertently resulted in the uncontrolled growth of poor-quality nursing homes (Kraushaar 1997). The impact of Tanzania’s National Health Insurance Fund, which was initiated only in 2001, cannot yet be assessed, but it has begun to accredit private providers, thus providing incentives to join the fund and contributing to quality control (box 6.3). Ghana passed a national health insurance law in 2003 that is intended to replace fees, but no comprehen-
sive regulatory framework or legislative instrument yet exists for implementation of the health insurance law, and many policy issues have been left unresolved, including eligibility criteria, specification of benefits, contribution collection system, liquidity and risk management, and provider payment systems. On a more promising note, the Central Asian nation of Kyrgyzstan, which resembles many countries in Sub-Saharan Africa with its low-income economy and weak health system, implemented a health insurance program that improved health services after three years of carefully crafted, strategically focused, and performance-based provider payments (Kutzin 2001).

The specter of reverse subsidy hangs over any mandated civil servants’ health insurance program that requires government contributions. The programs in Tanzania and Ghana, for instance, require equal contributions from the civil servants and the government. However, the civil servants are already the better-off citizens in society, and using government revenues that could otherwise be financing health services for the poor to finance the employer’s contribution may exacerbate inequalities.

Box 6.3 Tanzania’s National Health Insurance Fund may provide a model

The National Health Insurance Fund, a compulsory contributory scheme established by an act of Parliament in 1999, commenced operations in July 2001. It caters to central and local government employees, including their spouses and up to four children or legal dependents.

Contributions are 6 percent of salary, shared equally between government and the civil servants. As of May 2003, there were 167,390 contributors with more than 500,000 beneficiaries. The benefits package includes registration fees, outpatient services (including the costs of all drugs prescribed to beneficiaries attending accredited facilities), and inpatient services (including accommodation, medication, examinations, investigations, and a broad range of surgical services). The Fund is obliged under the legislation to issue an identity card to every registered member. A sick sheet is used with the employers’ identity cards whenever members require services from accredited health facilities.

Challenges during the first years have included:

- Reluctance of stakeholders, especially teachers, trade unions, and some medical providers, to participate due to lack of confidence in the scheme
- Difficulties in getting the sick sheet from the employer during weekends, after work hours, or on holidays, and preventing nonmembers using sick sheets to obtain treatment
- Ill-prepared government facilities unable to deliver services because no prior arrangements were made at the facility level
- Inadequate supplies of medicines

The Fund is responding by establishing decentralized offices to ensure prompt payment of claims, and it is beginning to accredit pharmacies, as well as religious and NGO health facilities, as approved providers. It is also undertaking regular inspections of providers to assure high-quality services.
An Operations Evaluation Department (OED) review found that the Bank has paid little attention to risk sharing, social insurance and structured third-party payment mechanisms in health. Although the Bank has done much analysis of health financing issues, it has given less attention to the institutional challenges of implementation, and it has generally failed to address the political and cultural dynamics that underlie inequalities in resource allocation to protect the poor.

**In the absence of alternatives, countries continue to employ user fees**

In the absence of health insurance, fees, prepayment schemes, and community health financing will continue. These initiatives require special attention from the Bank, given concerns about inequities and the impact on poverty.

Most African countries have some form of fee system in government facilities. Although fees are not the preferred option for sharing risk, generating revenues, improving resource allocation, or benefiting the poor, they can ensure the provision of basic health services in settings where financing is uncertain. Even at very low levels, fees can provide a scarcity signal to consumers, especially for drugs, improving management of commodities and supplies—as with the Tanzania community health funds and the many cases under the Bamako Initiative. If fees remain where they are collected, they can also generate resources, enhance quality, improve efficiency, and empower communities (box 6.4) (Gilson 1997a).

The charging of fees for health care in the region generally represents an effort to capture household health expenditures and pool them with government financing to finance publicly provided services. Fees can also be employed to direct care-seeking behavior; for example, fees imposed on secondary and tertiary care can discourage bypassing the first level of care, and removing fees can promote utilization of desirable interventions with lower demand, such as immunization.

The evidence is clear that fees are not the solution to sustainable financing, because they amount to only a modest fraction of the total recurrent costs of government health services—from less than 1 percent to at most 20 percent (Gilson 1997b). However, they can cover a much larger portion of recurrent expenditures at the local level. In a study of primary health care centers in eight Central and West African countries,
fees for the health care given to patients accounted for 50–200 percent of nonsalary recurrent costs (Wagstaff and Soucat 2001). Since the expense of operating local health centers is a small fraction of total public health spending, revenue generation may have a significant impact on these centers (Nolan and Turbat 1995).

**Protecting the poor.** Concerns about the poorest, who may not be able to cope with even minimal fees, provokes much of the debate about user fees. “For such people health care payments may undermine household well-being by deterring or delaying the use of health services for severe health conditions, constraining payments for other health-producing goods such as food or housing, or promoting greater household indebtedness and impoverishment” (Gilson and others 2000, p. 94).

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**Box 6.4 The Addis Ababa Forum identified principles for cost sharing in health and education**


- Cost sharing in the form of user charges should be considered only after a thorough examination of other options for financing social services (tax reform, budget restructuring, aid flows). General taxation is more effective, efficient, and equitable than cost-sharing mechanisms.
- Efforts to contain costs and increase efficiency must be considered before introducing cost sharing.
- Basic social services should either be provided free or be substantially subsidized.
- Cost sharing in health should exempt preventive care where benefits extend beyond users (for example, immunization).
- Cost sharing should be considered only as part of a comprehensive sector strategy for both health and education, formulated by government with all stakeholders.
- Resources generated through cost sharing should be additional, not substitutes for existing resource allocations to the education and health sectors.
- To be sustainable, cost sharing must lead to immediate improvements in access and quality. Revenue generated through cost sharing must be retained at the local level.
- Cost sharing must be accompanied by special measures that effectively protect the poor. While cost sharing may be necessary because of severe constraints on financial resources, caution must be exercised where there is doubt about the ability to protect the poor.
- Nondiscretionary exemption schemes are preferred.
- Involvement of beneficiaries is critical to the sustainability of cost sharing. Community participation and control of resources are fundamental to the design and management of cost-sharing mechanisms.
- Training and capacity building of community management committees and service providers are essential to successful cost sharing.

Almost all national fee systems include some sort of exemption mechanism. Exemptions are intended to ensure that inability to pay does not deter anyone from seeking care. In reality, in most African situations it remains very difficult to appropriately define and effectively implement exemption mechanisms. The failure of approaches to exempt the poor from fees results in the criticism that fees are harmful to the poor.

Nor does the generation of fees always have a positive distributional effect. At Kenyatta National Hospital in Kenya, the quality enhancement efforts related to fees increased demand so much that the hospital’s demand on the public health budget increased from 12.8 percent in 1992 to 16.9 percent in 1998. Clearly, having fees contribute to improving health outcomes for the poor—making quality health services available or reducing their use due to cost—is not simple. A critical question is whether fees channel household expenditure, which is already being spent by the poor on health care, toward more effective services, ensuring more value for their limited money.

Studies in the 1980s often concluded that the price elasticity of demand for health services was relatively low (Akin and others 1985). This pointed toward a high willingness and ability to pay for health services. However, at the end of the 1980s, other studies showed that the demand for health care was highly price-elastic, with decreased use following the introduction or raising of fees. In countries such as Côte d’Ivoire and Burkina Faso, the price elasticity of demand was shown to be high overall, but particularly high for poorer groups, rural communities, and young children (Gertler and van der Gaag 1990; Sauerborn and others 1995). A study in Cameroon showed that, because revenue was retained locally and used to improve the quality of services, the use of curative services by the poorest 20 percent increased after the introduction of fees and was higher in facilities that introduced fees than in control facilities where services remained free (Litvack and Bodart 1993).

Because demand for some services is highly price elastic, care must be taken to develop pricing schemes that promote priority services, including those with positive externalities that benefit the individual receiving the service as well as society in general (as for infectious diseases). This often translates into zero fees for well-child care visits, prenatal care, tuberculosis, and immunization.

**User fees can improve quality.** In several instances, local retention and allocation of funds has improved quality and increased the availability of drugs (McPake and others 1991; Wagstaff and Soucat
2001). A number of evaluations have documented quality improvements from fees if revenues are managed well. In many African countries, perception of quality is as crucial as—or more crucial than—price in influencing the demand for health care.

If revenues are used to improve the service provided, cost recovery schemes can increase demand, but fees by themselves will not always translate into improved service. The details of the system—Who collects the fee? What happens to the revenue? Who makes the decisions? What incentives are created?—are crucial. In Cameroon, Guinea-Bissau, Liberia, Madagascar, Mauritania, Niger, and Rwanda, health care use increased when fees varying from US$0.40 to US$1.70 were introduced. The fees were locally retained, managed by the community, and used to improve access, the availability of drugs, and the quality of care (Wagstaff and Soucat 2001). When fees were abolished in Uganda, use increased (figure 6.5), but use varied significantly by district and appeared to be related to the availability of drugs (which could previously be financed by the revenue from fees).

**Community financing takes multiple forms**

Community financing covers a variety of financing arrangements at the local level, including community health funds, mutual health organizations, rural health insurance, and revolving drug funds (Dror and Preker

![Figure 6.5 Patterns of use changed when fees were abolished in Uganda](image-url)

*Source: WHO and Uganda Ministry of Health 2003.*
These financing schemes are diverse in their objectives, design, context and implementation arrangements.

A recent review of community financing by the International Labor Organization and the World Bank categorized the various community-based financing schemes into four types:

1. Community cost sharing: the community is actively involved in designing and managing the proceeds from fees for health services delivered.
2. Community-based prepayment schemes: the community collects and manages prepayments.
3. Community provider-based health insurance: providers collect prepayments from the communities they serve.
4. Community-organized health funds, revolving funds, or prepayment programs: these give some financial protection for the overall costs of health care (Dror and Preker 2002).

The review concludes that the main strengths of community financing schemes are the high level of outreach through community involvement, the contribution to financial protection against illness, and the increase in access to health care for low-income groups.

For instance, in Niger the use of antenatal care increased among the poorest 25 percent of the population following the introduction of community financing schemes with minimum prices, and use increased further when lower user fees were complemented by a progressive tax system (Diop, Yazbec, and Bitrán 1995). The weaknesses of community financing are the low level of risk protection, the exclusion of the poorest of the poor, and limited benefit coverage (box 6.5). In Rwanda, NGOs or churches subsidize the premiums to be paid by the poor. As a result, the Rwanda *mutuelles* achieve equal enrollment of the poorest and the richest groups, a unique feature among microinsurance schemes in Africa.

Responding to the fact that most health needs are not anticipated, prepayment initiatives in Africa offer a way to reduce the need to have cash on hand when medical needs arise. Having individuals make contributions in advance to draw against in financing their health care costs, as occurs with medical savings plans in Southeast Asia, is rare in Sub-Saharan Africa. Prepayment is commonly used to collect premiums for community or facility financing schemes.

Zambia’s prepayment scheme assured members of care on demand at government facilities, eliminating the requirement to pay fees for the
service given, with almost no limits on frequency of care seeking, referral, or entitlement to services. Prepayment proved popular in Zambia, but was used more by the wealthiest income groups, who made up 49 percent of care seekers (Diop, Seshamani, and Mulenga 1998). Some community financing or facility-based prepayment schemes include a cap on the amount of service the contributor may receive within a given period. A maximum of 15 days of hospitalization is covered under one scheme in Senegal (Atim 1998). Under the Chogoria Scheme in Kenya, there is an annual limit on the number of outpatient visits (Musau 1999). Other schemes, such as those in Côte d’Ivoire and in Tanzania, have capped the amount of expenditure that will be financed (Atim 1998; Musau 1999).

**Countries are trying to improve the efficiency and equity of health financing**

Although constraints on health resources across Africa are significant, many countries could do much better with the resources they actually have than is the case today. Significant scope exists for improving the use of existing resources, and demonstrating the effective use of existing government and donor resources (in terms of efficiency and equity) will increasingly be a prerequisite for obtaining additional external resources.

The allocation of public expenditure remains a powerful way to influence household behaviors and expenditures, other sources of
domestic and international financing, and the actions of providers (both public and private). The World Bank is in a position to inform and influence decisions on public expenditures for health, to monitor expenditures, and to compare the impact of different expenditure patterns. Many international partners and client countries expect the Bank to contribute from this perspective. It is important to recognize that there is no consensus on identifying a quality health sector expenditure program, and, as noted in chapter 5, the knowledge base is still weak on how to resolve the systemic constraints on improving outcomes.

Many simple ratios have been used in health sector expenditure reviews: recurrent to investment, hardware to software, salary to nonsalary, primary health care to tertiary medical care. However, few correct formulas have been identified for any of these comparisons. Budget analysis is further constrained by the effect of donor financing and nontraditional budgeting. Donor contributions—including those of many new foundations—are not tracked consistently and are often maintained “off budget,” as, for example, in Tanzania. That fact can complicate budget analysis, although most donors can provide financing information when asked. Deriving and disseminating lessons on public and private expenditures for health and employing national health accounts should be a priority for the Africa Region.

Improvements in technical and allocation efficiency could improve health outcomes, even within existing resource constraints

In most African health sector settings, both technical and allocation efficiency could be improved significantly. This would allow improvement of health outcomes within the existing resource base.

Technical efficiency relates to the way services are organized and provided. Opportunities to achieve gains in technical efficiency relate to the use of more cost-effective drugs, technologies, treatment regimens, and approaches, such as the use of medical auxiliaries or innovations in outreach care. Improving referral systems can make a significant difference in the technical efficiency of a system. For example, many conditions treated at tertiary hospitals can be much more cost-effectively treated at secondary hospitals or primary clinics. Yet even large-scale provision of essential or basic health care services may have little impact on health because the efficacy of government-provided health interven-
tions is often low. As described in chapter 2, several of the Bank’s health partners, including WHO, can better advise countries and the medical professions on service delivery protocols and on the most cost-effective methods of using staff, drugs, supplies, and clinical procedures to deliver a given health intervention or service.

Allocation efficiency is an area where the Bank has a comparative advantage. How can limited resources be allocated in a way that will have the greatest impact upon the burden of disease? Directing expenditures to more cost-effective interventions (versus determining how a given intervention can be delivered more cost effectively) is a strategy described first in World Development Report 1993: Investing in Health (World Bank 1993b), later with various permutations in many other publications, and most recently in the report of the Commission on Macroeconomics and Health’s Working Group 5, Improving Health Outcomes of the Poor (WHO Commission on Macroeconomics and Health 2002a). The basic concept is that countries should channel their limited resources to the interventions that will have the greatest impact on their leading causes of illness and death.

Debates surrounding this approach stem from who sets the priorities and how. More recently, questions are being raised about whether the allocation of public expenditure on health should consider other criteria, such as protecting households from the burden of paying for uncommon and unanticipated catastrophic care, as well as meeting frequent and more readily anticipated needs for low-cost basic services. The expectation that poor governments would finance a basic package of the most cost-effective interventions for the entire population is now viewed by many as neither realistic nor perhaps the best use of public funds.

Typically, curative services, especially hospital-based inpatient care, are more expensive. Many households can afford to pay for less costly basic health care, and the government’s financing of more costly hospital care can act as a crude form of risk-pooling through a tax-based subsidy for the poor (Filmer, Hammer, and Pritchett 2000).

The previously recommended approach of employing public expenditures to finance a basic package of universal care is questioned for another reason: employing limited public sector resources to provide basic health services to the nonpoor is an inequitable way to allocate public resources. Until recently, approaches to government provision of health care assumed that the types of health services provided would result in self-targeting because the need for these services was higher
among the poor and because the rich in Africa would not seek care from public facilities. However, as highlighted in chapter 3, benefit-incidence studies have repeatedly shown that the poor benefit much less than the nonpoor from government health care expenditures in many Sub-Saharan African countries (Castro-Leal and others 2000; Demery and Squire 1997). The poor in Sub-Saharan Africa will not be reached simply through higher expenditures, broader coverage, or a focus on essential services. Benefit-incidence analysis shows decisively that the poor in Africa use public health facilities less than the nonpoor, particularly hospital care. In almost every African country, the share of the financial benefit received by the poorest quintile of the population was less than 20 percent of the total, and less than the share received by the richest quintile. Guinea presents the extreme case: the richest quintile consumed almost 50 percent of public health care spending (table 6.2). Without greater use by the poor, increasing resources in the health sector will merely lead to further inequalities in the provision of services.

Much of the disproportionate expenditure on the nonpoor is explained by the location of health infrastructure, particularly hospitals, which consume far more resources than lower level facilities. Infrastructure drives costs, captures recurrent expenditures, and thus restricts how readily budgets can be reallocated to benefit the poor. Skewed expenditures are also explained by the location of staff (the highest proportion of health professionals is in urban areas), the care-seeking behavior of poorer, less educated families, and the revenue-maximizing attitudes of many medical providers.

<table>
<thead>
<tr>
<th>Country</th>
<th>Primary facilities</th>
<th>Hospital outpatient</th>
<th>Hospital inpatient</th>
<th>All health</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Poorest quintile</td>
<td>Richest quintile</td>
<td>Poorest quintile</td>
<td>Richest quintile</td>
</tr>
<tr>
<td>Côte d’Ivoire</td>
<td>14</td>
<td>22</td>
<td>8</td>
<td>39</td>
</tr>
<tr>
<td>Ghana</td>
<td>10</td>
<td>31</td>
<td>13</td>
<td>35</td>
</tr>
<tr>
<td>Guinea</td>
<td>10</td>
<td>36</td>
<td>1</td>
<td>55</td>
</tr>
<tr>
<td>Kenya</td>
<td>22</td>
<td>14</td>
<td>13</td>
<td>26</td>
</tr>
<tr>
<td>Madagascar</td>
<td>10</td>
<td>29</td>
<td>14</td>
<td>30</td>
</tr>
<tr>
<td>Tanzania</td>
<td>18</td>
<td>21</td>
<td>11</td>
<td>37</td>
</tr>
<tr>
<td>South Africa</td>
<td>18</td>
<td>10</td>
<td>15</td>
<td>17</td>
</tr>
</tbody>
</table>

Source: Castro-Leal and others 2000.
The nonpoor would presumably benefit more from universal public financing of a package of cost-effective medical interventions. Wealthier households are often willing to purchase private health insurance or community health funds when those options are available. All this means that much more consideration and better analytical foundations are required to formulate solid health policy frameworks—ones that will maximize allocation efficiency and effectively target public finance to improve the health of the lowest income quintiles.

**The Bank has a critical role to play in helping clients get the input mix right**

Over the years, the Bank has learned from its financing of health projects that the wrong mix of staff, training, drugs, equipment, infrastructure, maintenance, or behavior change communications programs will result in wasted resources and a negligible impact on health outcomes. If a mother has been influenced by health education messages to bring her child with a fever to a health facility, and if the facility is readily accessible and well maintained and has recently received a supply of drugs, and if the medical assistant has recently been trained in Integrated Management of Childhood Illness (IMCI)—but the assistant is not present, because she has not received a salary in six months and needs to work outside the facility to feed her family or because she is on the road to the capital to collect medical supplies that were not delivered—then all the investments in drugs, infrastructure, health education, and training go to waste, because the child is not treated correctly. As an example, in Ethiopia, half of the health facilities surveyed lacked a simple timepiece and thus were less able to diagnose childhood pneumonia, a leading cause of child mortality.

Investment in infrastructure (capital investments) without the concomitant allocation of trained staff, supervision, behavior change, and drugs (recurrent expenditures) will provide tangible outputs and perhaps the illusion of achievements from a political or community perspective, but is unlikely to affect health outcomes. In fact, 30 fully supplied health facilities with trained and well-paid staff will have a greater impact on outcomes than 300 newly constructed health centers with unmotivated staff and no drugs. This line of reasoning is extremely difficult for governments and communities to accept, and it undermines targeted capital investments by many external financiers.
Ensuring the financing of nonsalary recurrent expenditure is especially important because, without pharmaceuticals and medical supplies, health care is severely compromised. A large part of Bank financing has traditionally been channeled to capital investment, but the Bank has not been effective in ensuring the provision of concomitant recurrent costs. Recurrent expenditures are subject to fundamentally different risks and institutional constraints than capital expenditures because they are continuous and are driven by economic and demographic factors (Haddad, Van Adams, and Harnett 1995). Changes in recurrent expenditures are important indicators of the functioning of a health sector, but they need to be well understood. For example, a decreasing share of the recurrent budget going to salaries may actually indicate an inability to fill staff positions, rather than greater priority being given to nonsalary inputs.

Coordinating investments in health infrastructure and medical equipment is not easy. The overexpansion of health infrastructure beyond sustainable levels is common across the region. Many health facilities across Africa stand empty, underused, and underfunded. Many clinics do not function due to lack of medical and nursing staff or operating budgets, security concerns, disrepair, or poor design, and medical equipment sits unused due to a lack of knowledge of how to use it, missing and broken parts, or incompatibility. Many countries allocate few domestic resources to capital costs in the health sector, relying largely on foreign assistance. They rarely make these investments according to an explicit plan, instead undertaking civil works when financing is offered. In addition to pharmaceuticals, civil works procurement is often the fastest mechanism for disbursing large amounts of external resources, particularly when those resources cannot be used to finance recurrent costs.

The World Bank has been financing infrastructure development in Africa’s health sector for decades, and is probably the largest external financier of such infrastructure. About 35 percent of financing in health projects in Sub-Saharan Africa is disbursed against infrastructure. Evaluations of Bank-financed construction reflect the overly optimistic view of many client countries—and Bank staff—of the government’s ability to support new clinical facilities and of individual and patient use of clinical services. Yet demand by African governments and local communities for new investments in clinical infrastructure and medical equipment, and rehabilitation of these, remains high.

The World Bank has a comparative advantage—and opportunity—to support rational, long-term planning for clinical infrastructure and
equipment (box 6.6). Specific investment requests can be conditioned on acceptable plans, and the appraisal of health sector investment strategies can review the rationale for new facilities, including the location, population served, referral patterns, and demand, as well as the likelihood of medical and nursing staffing, pharmaceutical supply, and maintenance of new clinical infrastructure and medical equipment. Detailed geographical mapping of health facilities (private and public) justifying the construction of new health facilities, and firm commitments to the provision of complementary inputs (equipment, electricity, water supply, trained personnel, and maintenance), should be preconditions to any new public sector construction. The procurement of new medical equipment should be tied to establishing or updating inventories, drafting equipment standards, and specifying requirements for long-term maintenance contracts (life-cycle contracts) (World Bank 1995a).

Private hospital construction and equipment investment should also be a public sector concern. (In almost all OECD countries private hospital investment and construction, as well as major medical equipment—such as radiological or surgical equipment—are subject to strict public regulation and permits or licenses.) The World Bank and other donors often fail to recognize private clinical facilities in discussions of investment and health reform strategies, even where sectorwide programs (SWAps) are well established. Yet private hospital investments can become a costly public sector responsibility (Zambia’s copper mine hospital network reverting to public responsibility in 2002 is an illustration), and closing down hospitals is rarely a viable option politically.

**Box 6.6 The Bank and client countries need to make rational investments in new medical technology**

International donors, including the World Bank, promote investment in medical equipment and technologies in developing countries. These investments, often large, are not always backed with a sound evidence base for their effectiveness, cost-effectiveness, or equity implications in the developing country context.

For example, countries are using funds from the Global Fund and the World Bank to purchase Facscount machines to monitor CD4 counts for HIV patients. Such equipment is expensive to operate and maintain, but systematic evaluation of evidence of the utility of this new technology is not high on the agenda of either the donors or the recipients. WHO’s global network for health technology assessment has minimal representation from African countries.

World Bank staff working in Africa could work with technical counterparts in WHO, UNICEF, and UNAIDS to develop mechanisms whereby new medical technologies would routinely be assessed and vetted, similar to the WHO prequalification process for antiretroviral drugs and the Green Light Committee for Tuberculosis. Such an approach would harness global knowledge and best practice of medical equipment and technology, and could help client countries improve the quality and effectiveness of investments in the health sector.
Provider payment mechanisms can improve efficiency and effectiveness

Throughout Africa, health and medical providers in the public sector are generally paid on a salaried basis, versus a fee-for-service or capitation basis. Independent physicians and others in private practice mostly pay themselves—or are paid by insurance companies—based on fee for service. Different incentives in each payment mechanism relate to the objectives for the health system: maximizing efficiency, focusing on the poor, providing certain services, or avoiding overreferral. The field of medical payment mechanisms is complex both from the financial and management perspective and from the medical perspective (for example, payment of clinical procedures or diagnostic-related groups). Incentives to underperform or overperform exist within salary systems, capitation systems, and fee-for-service systems (Blumberg 1979). Worldwide, provider payment mechanisms are strongly correlated with the political economy (Reich 1994).

Almost all provider payment systems are heavily intertwined with specific health insurance and third-party payment modes (sickness funds, catastrophic illness insurances, health maintenance organizations, national health insurance) whose payment policies can have large efficiency and equity effects. For example, in the 1980s and 1990s payment policy changes resulted in dramatic shifts from centralized inpatient surgery to predominately outpatient and decentralized surgical procedures (Chang and Harold 1991).

From an economic perspective, fee-for-service systems tend to be more efficient in terms of unit costs, but show high correlations with supplier-induced demand and display low equity effects (they tend to exclude these who cannot pay) (Evans 1974). Capitation and salaried systems show better cost containment and equity patterns, but they remain potentially weak in efficiency, are heavy in administration, and generally have low innovation rates (Drummond 1987). In most African countries, salary-based payments are probably the best approach in the immediate future for public sector medical providers as well as larger private sector medical institutions.

Agreements with religiously affiliated NGO providers and private for-profit providers may include different approaches. In Sub-Saharan countries where government has financed care through a religiously affiliated network of providers, the financing has generally been through
subvention or subsidy. Only recently has a formalized service delivery agreement been pursued, with the government purchasing services. Forms of capitation are emerging as recognition increases of the role of such facilities in assuming geographic responsibilities that complement the location and catchment populations of public sector facilities. In these new agreements, the payment mechanisms are crucial. Many African governments would benefit from assistance that is based on wide global experience in this field as they consider the various options (Glaser 1987).

**Multicountry strategies to achieve greater economies of scale deserve attention**

Efficiency gains can also be achieved through partnerships and other efforts to attain greater economies of scale. Much of Sub-Saharan Africa includes countries that are small demographically and economically, where poor economies of scale are often realized in producing health personnel, producing or importing pharmaceuticals and medical supplies, formulating standards and regulatory functions, and providing referrals for specialized care. To economize, countries can operate collaboratively, sharing or pooling medical expertise, technical and managerial capacity, and some of the capital investments required. Rather than developing and managing small specialized capacity for medical or surgical procedures that are infrequently demanded (specialized ophthalmology, orthopedics, radiology, cardiology, and oncology), some of the smaller countries in the region could benefit from partnerships with neighbors. For example, Lesotho refers specific cases based upon an agreement with Bloemfontein Hospital in South Africa, and The Gambia refers cases to Senegal.

Some subregional entities, such as the Southern African Development Community and the Economic Community of West African States, provide structures for initiating collaboration in medical training, pharmaceutical regulatory functions, clinical referrals, and the control of epidemics. Pooled procurement of pharmaceuticals, vaccines, and medical supplies by a group of small countries can produce much more competitive offers while responding to cash shortages (which limit an individual country’s ability to buy in bulk) and limited capacities for managing international competitive bidding for pharmaceuticals.

The World Bank has traditionally not been very strong working in multicountry or subregional arrangements. The WHO Regional Office
for Africa and the two subregional UNICEF offices have been better placed to initiate such collaboration. However, within the Africa region the Bank is now considering opportunities to respond more effectively to Africa’s needs with approaches for working at the regional and subregional levels, as illustrated by recent MAPs. The Bank could highlight potential economies of scale and pursue these on a regional or subregional basis, enlisting the collaboration of the African regional offices of WHO and UNICEF as well as such African regional organizations as the UN Economic Commission for Africa and the new African Union.

**Conclusion**

The Bank has a critical role to play in supporting African client countries in the development of sustainable and effective health financing strategies. The evidence base for the health financing strategies that will best maximize efficiency and effectiveness and respond to the needs of the poor in Africa is limited. Global consensus is weak at best on the best health financing practices for very poor, low-capacity countries, but some lessons have been learned and consensus has been reached on some basic principles. Bank health staff working in Sub-Saharan Africa can bring global and regional experience to client countries and ensure that initiatives are closely monitored and evaluated to inform technical and political decisionmakers and their constituencies.
Implications for World Bank Operations

The World Bank can contribute to improving health, nutrition, and population (HNP) outcomes for the poor in Africa through the transfer of financial resources, through knowledge transfer and policy advice, through analysis, appraisal, monitoring, and evaluation, and through advocacy. World Bank “operations” refers to the use of these mechanisms in the context of the lending and nonlending services that the World Bank provides to its client countries in Sub-Saharan Africa. This chapter considers ways in which the World Bank’s operations staff can better employ these mechanisms to respond to Sub-Saharan Africa’s key health, nutrition, and population challenges. It also recognizes that the Bank cannot act alone and must build effective national, regional, and global partnerships.

World Bank operations in Sub-Saharan Africa aim to achieve sustainable improvements

The World Bank has endorsed the Millennium Development Goals (MDGs), and this affects how the Bank measures the impact of its work throughout Sub-Saharan Africa. Each of the Bank’s Country Assistance Strategies and lending operations is now being assessed for its potential impact on the MDGs. Further, because many of these goals relate to health, nutrition, and population—reducing hunger, increasing
education, lessening child mortality, and reducing maternal mortality, HIV/AIDS, malaria, and other diseases—they influence the way the Bank’s health, nutrition, and population sector specialists must work with country directors, country economists, and other sector specialists in the Bank’s Africa Region. Achieving the MDGs in Africa will not be possible through actions limited to the health sector, but it will also not be possible without stronger performance by the health sector itself.

As noted in chapter 2, investments in health, nutrition, and population are investments in poverty reduction. Governments and many of their advisors still view health, nutrition, and population services as social obligations rather than investments. Changing this perception is made difficult in part by the charitable connotations of providing services to the poor. Investments in health are often driven by compassion and the desire of development assistance agencies to undertake short-term initiatives intended to alleviate visible suffering quickly. However, unsustainable efforts to improve health will not reduce poverty and will not contribute to attaining the MDGs.

The objectives of the HNP staff in the World Bank’s Africa Region are to support efforts by the Bank’s client countries to achieve sustainable improvements in health outcomes, particularly for the poor, and to protect households from impoverishment due to illness. To have a sustainable impact, the institutional and human capacity of Africa’s health sector must be able to lead long-term efforts. Bank operations thus aim to:

- Strengthen the capacity of client countries to identify and set priorities for their health concerns
- Design locally appropriate policies that build on global and regional knowledge and experience
- Mobilize domestic resources and international development funding
- Implement effective strategies
- Monitor and evaluate the impact of strategies on health outcomes for the poor

**Lending operations and resource transfers are taking a new approach**

New ways of doing business include changes in the way the Bank and others transfer resources to contribute to health outcomes in Africa. The
Bank’s approaches for resource transfers to Africa are shifting from freestanding projects toward programmatic lending. Bank financing at the country level will be a part of the country’s overall health sector budget, and even a part of its total public expenditure program. The scope of the Bank’s appraisal, monitoring, and evaluation responsibilities thus expands far beyond that of the traditional project. Because Bank financing actually supports all inputs in the sector or public expenditure program, the entire expenditure program for health becomes more important than the specific inputs against which the Bank may disburse financing.

**A sectorwide approach is becoming the norm**

For the health and education sectors in Sub-Saharan Africa, the norm is quickly becoming the sectorwide approach (also known as a sectorwide program or SWAp) (World Bank 2003c). This approach is consistent with the Comprehensive Development Framework and the Bank’s Africa Region’s commitment to use nationally developed and owned poverty reduction strategies as the framework for development assistance (box 7.1). Although there are many different perspectives on what constitutes a sectorwide approach, key characteristics (figure 7.1) are:

- The government is “in the driver’s seat.”
- Partnership between development partners and government results in a shared vision and priorities for the sector.
- A comprehensive sector development strategy reflects all development activities in order to identify any gaps, overlaps, or inconsistencies. The entire sector is considered when conducting sector analysis, appraisal, monitoring, and evaluation.
- Use of a sector expenditure framework clarifies sector priorities and guides all sector financing and investment.
- Partnership across development assistance agencies reduces transaction costs for government.

This approach can provide the Bank and other development partners with a mechanism for assisting African governments with their overall health development strategies in a way that builds capacity and ownership, recognizes the interactions among development initiatives, and encourages other development partners active in the health sector to
Box 7.1 The Bank’s strategy for Africa outlines principles for a new aid relationship

The World Bank’s Strategic Framework for Assistance to Africa describes principles for a new aid relationship based on PRSPs:

- Client ownership
- Dependable financial flows to governments
- Coordinated donors
- Uniform/harmonized processes
- Linkage to results


Figure 7.1 SWApS vary in application, but share building blocks

Source: Kanda 2003.

work in a coordinated and complementary fashion. Despite the challenges inherent in making the transition to this new way of operating, the sectorwide approach in Ethiopia, Ghana, Guinea, Lesotho, Mali, Mauritania, Senegal, Tanzania, Uganda, and Zambia has brought a much
more comprehensive approach to the sector, reducing the number of fragmented donor projects, each with its own agenda, constituency, and priorities. It has improved the extent to which key systemic constraints to achieving outcomes are identified and prioritized, has sharpened the focus on national capacity, and has strengthened coordination among the multiple agencies concerned.

**Implications for the traditional project cycle.** Identification and Preparation (analysis, knowledge transfer, and policy advice), Appraisal (assessment), Supervision (implementation support and monitoring), Mid-Term Evaluations, and Implementation Completion Reports (evaluation) are no longer rigidly sequential activities in the Bank’s project cycle. They have become a range of tools used to support national programs (figures 7.2 and 7.3).

The use of these tools will focus on areas where the Bank has a comparative advantage: macroeconomic and fiscal policy, multisector action, health systems, and health financing. But to appraise and monitor operations and provide relevant knowledge and effective policy advice, Bank task teams need to be aware of the leading health concerns in the country and able to tap complementary technical knowledge and expertise (such as that on specific health interventions). If Bank financing is to have an impact, staff must ensure that clients continually receive the best possible technical support and must refer them to specialized partners as necessary. In the Africa Region, many technical partners are present,
including WHO, UNICEF, UNFPA, the Medical Research Council in The Gambia and South Africa, the U.S. Centers for Disease Control, the French Institute of Research for Development, the Canadian International Development Research Center, and local research institutions, as well as the many contractual and academic agencies financed by bilateral development assistance agencies to provide targeted support.1

### Appraising sector national strategies, implementation plans, and budgets.

In SWAp, appraisals of comprehensive health sector development strategies replace appraisals of projects. SWAp appraisals demand a different perspective and a broader range of skills. They are not one-off events; indeed, they may be undertaken annually during joint health sector reviews as countries update their strategies based on the previous year’s experience.

Key questions to be asked at appraisal include:

- The extent to which national sector strategies and related expenditure programs can be expected to address malnutrition, fertility, and the leading causes of morbidity and mortality among the poor. The Bank should contribute its global knowledge and experience to the development and appraisal of national strategies.
- Whether the capacity exists, or can be developed, to implement defined strategies within stated timelines. Institutional capacity
assessments become more important when implementation of development strategies relies on national structures, systems, and procedures.

The extent to which sector strategies have the commitment of key stakeholders and correspond to broader national development strategies. The Bank has a role in fostering the involvement of a wide range of stakeholders in the design of national strategies. With the introduction of Poverty Reduction Strategy Papers, sector strategies should also be assessed for consistency with national strategies for poverty reduction.

In identifying, preparing, and appraising Bank operations in the health sector, staff must explain how the Bank’s interventions (financial and other) are expected to affect the health, nutrition, and population outcomes for the poor, increasing their use of cost-effective interventions and protecting them from impoverishment due to illness. In the past, any action aimed at improving health outcomes or increasing access to services in Sub-Saharan Africa was assumed to target the poor, given the prevalence of poverty in the region. The poor were expected to benefit preferentially from publicly financed health services, particularly if those services responded to their medical needs. Today sector specialists recognize that the poorest are not necessarily benefiting as much as they should from public expenditure or from public sector services. Benefit-incidence analysis can reveal to government and its partners how much the poor now benefit from health services at different levels, and can provoke assessment of existing health strategies and actions to ensure that they do benefit. As described in chapter 4, analysis of behavior, accessibility, and perceptions of quality may also be required to inform and guide national health sector reform strategies so that they respond to the needs of the poor.

Moving from supervision of projects to continuous monitoring and implementation support. Supporting national strategies, poverty reform, and sector development in health presents challenges to the Bank’s traditional operational procedures. The Bank has financed projects and programs in the health, nutrition, and population sector only since the 1970s, but it has supported infrastructure investments since 1947. Not surprisingly, many Bank rules and regulations were developed to oversee “bricks and mortar” type projects and not sector development or reform programs. Expectations for detailed
preplanning are a legacy that persists, even as Bank operational policies increasingly accept the differences between supporting broad sector development and supporting a construction project. Similarly, traditional criteria for gauging whether a project is performing well (such as the pace of disbursement of the financing) are ill-suited to complex institutional reform programs. Construction projects are supervised to ensure that they are being implemented as planned and are delivering on schedule and within cost. Health sector development programs, by contrast, require continual support to the implementation process.

Lending for such programs may also suggest norms and standards that differ from the traditional cross-sector Bank norms in the region. For example, disbursements of financing for health sector programs may be more appropriately back-loaded—that is, only small outlays may be needed initially for the required “software” (consultancies, analysis, consensus building, policy development), while large expenditures for the envisaged “hardware” (civil works, large-scale training) come later in the reform program (Nelson and Sewell 2000). Significant Bank contributions in knowledge transfer and policy dialogue are required not only in advance of implementation, during preparation, and preceding formal Board approval, but also through the years of implementation as countries refine their health sector strategies and learn from early experiences. The Bank’s 2004 Strategic Framework for Assistance to Africa (World Bank 2004d) recognizes that staff time on health reform policy dialogue and implementation support will increase, while staff time on preparation and project management of traditional procurement and disbursement components will decline.

The Bank’s Financial Management and Procurement Boards have noted that the Bank’s resource transfer profile in the social sectors (such as health) is increasingly characterized by large numbers of low value transactions. The proportion of Bank lending used to finance transactions that are below the threshold at which the Bank’s prior review is required is typically higher in social sector projects than the average for the Bank’s portfolio, and has grown over the years (World Bank 2002b). Some of the procurement standards that limit the use of methods other than international competitive bidding and set thresholds for the Bank’s prior review need to be reconsidered when legal agreements for sector programs in health, nutrition, and population are designed. The types of expenditure financed and the categories of disbursement will require adaptation to the new instruments of sectorwide support for health sector reform (World
The emphasis on ensuring adequate government counterpart funding, which is required in traditional investment lending, will shift in the sectorwide approach to an emphasis on financial sustainability. Finally, the Bank should not expect to be exempted from the harmonization of donor procedures attempted under sector programs.

The Bank’s support for sector strategies should explicitly complement the technical and financial support provided by other international development partners, framed in a way that will strengthen a country’s implementation capacity rather than undermine or overwhelm it. This suggests that separate Project Implementation or Management Units should be avoided, and common implementation procedures should be an objective. Promoting the employment of local consultants in preparation, analysis, and specific implementation tasks can help to build domestic capacity, provide opportunities that might dissuade qualified individuals from emigrating, and create links between public and private institutions.

Effective use of lending instruments. The choice of lending instruments, drafting of legal agreements, and development of legal covenants should support streamlined implementation procedures. Because implementation strategies will be continually revised or refined on the basis of experience, lending agreements need to be flexible. Onerous legal covenants should be avoided, and disbursement schedules should be simplified. The Adaptable Program Loan/Credit (APL) is a newer investment lending instrument intended to support the long-term commitment to Sector Programs. Adjustment lending—as in Poverty Reduction Strategy Credits (PRSCs) or Sector Adjustment Credits—is preferred if the recipient government has the systems, procedures, and track record to convince its development partners that prior review of individual expenditures is no longer required and that post reviews and audits are reliable and effective.

The foundation for a PRSC, which can support several priority sectors, should be a compilation of multiple sector strategies and expenditure programs. This is highlighted in the World Bank’s 2004 Strategic Framework for Assistance to Africa (World Bank 2004d), which outlines a progression from projects (weak country capacity) to sectorwide approaches (better capacity) to budget support (strong capacity) (figure 7.4). It recognizes that budget support cannot be provided in the absence of country capacity to design and implement sector programs. Disbursements through PRSCs may become the main instrument for resource
transfer to the health sector at country level, but generally the PRSC would continue to support the SWAp.

The translation of additional resources into achievement of the MDGs will require detailed and practical policy work at the sector level. Even as the Bank shifts its resource transfer mechanism to the PRSC, the same level of health sector policy dialogue, knowledge transfer, analysis, continual appraisal, and monitoring will be required. This support must be ongoing, guided throughout the PRSC funding cycle by the Bank’s Africa Region sector specialists in close conjunction with their colleagues from partner agencies in health.

Figure 7.4 The World Bank has defined a new strategic framework for assistance to Africa

CDD – Community-Driven Development
CPIA – Country Policy and Institutional Assessment
PSD – Private Sector Development
PRSC – Poverty Reduction Support Credit
TA – Technical Assistance
PRSCs also present opportunities to address sector constraints, such as reforms of the civil service and reorganization of the public sector, that are less readily addressed through sector investment operations. Health sector programs supported through PRSCs should therefore reflect efforts to exploit these opportunities.

**Exceptional circumstances may warrant a different approach**

In some settings, strengthening the Bank’s presence in the sector through more targeted subsector operations may be required before the country can be engaged in discussions of a sectorwide approach (for example, in post-conflict situations, as in Burundi, Somalia, Sudan, and the Central African Republic). However, sector dialogue should continually and explicitly work toward this longer-term objective, and some basic tenets of sectorwide approaches should be retained, including donor coordination, analysis of key sector constraints, and consideration of linkages outside the sector.

Higher risk countries—those where the dialogue has deteriorated or is outdated, or those in or emerging from crisis—will demand more than the standard level of staff time and travel. The Africa region has disproportionately more countries in political turmoil. The risks for achieving objectives may be high in such settings and should be explicitly recognized, but the potential benefits are significant. The opportunity to learn from experience may justify the risk and additional effort required. For example, a project in the Democratic Republic of the Congo supports innovative approaches to reaching the population with services in areas where the government has no presence.

The Bank’s Africa Region could place a greater value on mechanisms that allow relationships and dialogue to be maintained in post-conflict countries in the absence of lending. An especially strong case exists for such dialogue and engagement on communicable diseases because of their regionwide externalities. Large investments to control diseases in all endemic nonconflict countries without regard for the situation in the conflict countries can result in wasted investment, because over time the disease will reemerge and affect neighboring countries. In these settings, partnerships become even more critical because the Bank’s most effective intervention may be to support the activities of others, such as NGOs in Somalia.
Health, nutrition and population issues can also be addressed outside the sector

Even in countries where the Bank is absent from the health sector, it can contribute to the MDGs for health through its work in other sectors. Although all projects are assessed for their potential environmental impact, their potential to affect health is not explicitly considered. As discussed in chapter 4, incorporating health impact assessments into the mandated Environmental Assessment process (something already done by the Asian and African Development Banks) could mobilize multisector action for health and strengthen the Bank’s contribution to reaching the MDGs.

Bank-supported public sector reform and civil service reform programs can address organizational frameworks, institutional capacity, public-private partnerships, human resources, and the civil service in the health sector. Given the international demand for health workers, sector specialists should be integrally involved in the Bank team working on civil service reform programs. They should ensure, in close conjunction with IMF colleagues and their country dialogue, that evolving policies and strategies are appropriately and solidly guided by health sector needs and constraints.

The opportunities are immense to improve health outcomes through reforms in public sector legislation, regulations, and procedures, and, as described in chapter 4, through investment and policy reform in education, agriculture, roads, infrastructure, energy, and water. Yet Bank staff need to be enabled and motivated to pursue these opportunities. The way Bank staff time, travel, and consultants are budgeted, and the internal incentives to produce sector-specific lending, discourage multisector efforts by Bank staff and management. Operations that address multiple sectors would also require broader expertise than is generally available among most sector specialists today.

Nonlending opportunities can also be exploited

A wide range of opportunities exists outside of lending operations for the Bank to contribute toward health outcomes. As discussed in previous chapters, these include PRSPs, advocacy, macroeconomic dialogue and
policy advice, the production and dissemination of sector knowledge, and, most of all, monitoring and evaluation of national strategies to improve health, nutrition, and population outcomes among the poor.

**Health outcomes can be improved through poverty reduction strategies**

As discussed in chapter 3, HNP staff need to increase their involvement with PRSPs, public expenditure reviews, and medium-term expenditure frameworks to ensure that the synergies among all the various policy interventions are identified and fully exploited. If HNP staff can work closely with Bank and IMF staff engaged in public sector reform and fiscal management, then analysis, policy advice, and conditionalities related to PRSCs and HIPC allocations are more likely to serve the health-related MDGs and strengthen access of the poor to health services (box 7.2).

**The Bank can also contribute through advocacy and macroeconomic dialogue**

Through its work on HIV/AIDS, the Bank has shown the power of advocacy to increase many client countries’ commitment to address this leading cause of morbidity and mortality. As discussed in chapter 3, the

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**Box 7.2 A PRSP can incorporate health, nutrition, and population effectively**

To effectively incorporate health, nutrition, and population, a PRSP should include the following:

- Provide indicator (baseline and target) values by poverty grouping, including health outcomes and use of services
- Determine accessibility of facilities (public and private) by poorer groups and availability of key inputs (medical staff, drugs, budgets) at those facilities
- Estimate the relative performance (in organizational and technical quality as well as service relevance) of facilities (public and private) serving the poor
- Analyze the extent to which public spending on health is pro-poor
- Examine the present system of health services financing and its likelihood of sustainability
- Investigate the extent to which the present organizational system of public sector health service delivery (decentralized or not) is pro-poor
- Estimate the extent to which user fees discourage the poor from seeking care

*Source: Adapted from World Bank 2001e.*
Bank could position itself in a similar manner for malnutrition in Africa and possibly also for population. Over the past decade nutrition and population challenges have dropped out of the Bank’s policy dialogue in Africa, even though Africa is the only region where malnutrition is increasing and dependency ratios remain high. Country directors and country economists can elevate nutrition and population concerns on the Bank’s policy agenda with empirical evidence, provided by sector specialists, of the impact of malnutrition and high fertility on efforts to reduce poverty.

As discussed in chapter 3, the Bank, working with the IMF, plays a unique role in the relationship between fiscal and macroeconomic policy and the health sector. Opportunities for coordinated action are exemplified in medium-term expenditure frameworks, privatization and employment policies, taxes and tariffs, financial management and information systems, and the financing of health care, nutrition services, and family planning provision.

Bank staff working on health, nutrition, and population in Africa could also work more closely with the Bank’s International Finance Corporation to support the development of private actors in health in a way that would contribute to poverty reduction. Opportunities include franchises of health service providers, hospital privatization, health facility management firms, health insurance, and the production and commercial distribution of pharmaceuticals and medical supplies.

**The Bank can help to build the knowledge and evidence base**

African national health, nutrition, and population strategies are shaped and guided by the contributions made by domestic and international politics, by domestic experience, by development assistance agencies, and only to a limited extent by systematic analysis of national or regional experiences (Walt 1994). In the areas of system organization and financing, the technical inputs into strategy formulation from international partners often reflect individual perceptions, experiences, and cultural philosophies rather than empirical evidence (White 1974).

As highlighted previously, the international knowledge base on cost-effective medical and health interventions is substantial, whereas the relationship among national policies, health system organization, resource allocation, and health outcomes is less well understood.
Previous chapters highlighted areas where critical gaps in knowledge impede the ability of client countries to make fully informed decisions regarding policies, strategies, and expenditures. This lack of evidence also impedes the ability of the Bank and other partners to assess national policies, strategies, and expenditure programs.

Sub-Saharan health systems, and the often very poor environments in which they endeavor to operate, differ significantly from those of middle- and higher-income countries. Much of the strategic work undertaken inside and outside the Bank on health system organization and finance relates to middle- and higher-income countries. Analysis and evaluation targeted to very-low-income countries in Sub-Saharan Africa and elsewhere are required to build the knowledge base and to guide the Bank’s health policy advice in Africa. Multicountry analysis of experience, empirical analysis appended to country operations, and sector studies related to the following issues are priorities for the HNP staff in the Bank’s Africa Region:

- Separating the public sector role of health service delivery from its responsibilities for policymaking, planning, financing, purchasing, monitoring, and regulating
- Strengthening the role of private health providers (regulatory frameworks, accreditation, franchising) and outsourcing to districts, missions, NGOs, and other private organizations or companies
- Resolving issues of retention, deployment, and performance of the health workforce
- Defining sustainable financing strategies, including knowledge regarding user fees, community-based financing schemes, health insurance, and public expenditure
- Improving the financing, purchasing, and management of pharmaceuticals

Internal resource constraints limit the contribution of the Bank’s Africa Region to the knowledge base, but the Bank’s Africa Region’s staff can also influence the analytical agendas and workplans of both internal and external partners, encouraging other institutions and other offices in the Bank to focus on the systemic constraints facing low-income countries. Partnership with the health systems staff in the Bank’s Human Development Vice Presidency has resulted in joint analytical work on health financing and on human resources for health in Sub-Saharan Africa. The
Bank’s Africa Region’s priorities have guided the World Bank Institute’s (WBI’s) work program for Sub-Saharan Africa (box 7.3). Engagement with the Development Economics Vice Presidency could similarly have a bearing on its analytical work program and channel its efforts into building the knowledge base regarding health systems and health financing in Sub-Saharan Africa. This would ultimately strengthen the impact of government-defined policies and strategies, as well as the impact of both government and external financing.

The Bank will need to focus more on monitoring and evaluation

Despite decades of rhetoric, there has been little progress in developing national capacity to monitor and evaluate health sector development strategies in Africa. Performance-based management, SWAs, and PRSPs can all foster greater demand for good information. Sector programs have often consolidated multiple reporting requirements into a single list of core health indicators and used joint annual reviews for monitoring sector strategies against objectives. PRSPs have encouraged

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**Box 7.3 The World Bank Institute shares knowledge on health, nutrition, and population in Africa**

The Health, Nutrition, and Population Team of the World Bank Institute (WBI) develops and delivers training courses and seminars and provides policy services in collaboration with country institutions, other bilateral and multilateral partners, and Bank regional staff. Through joint client-staff training delivered in face-to-face global or regional courses and distance learning, the team’s programs reach policymakers, technical staff, local officials, parliamentarians, labor leaders, NGOs, journalists, and key sector stakeholder groups in all regions.

WBI sponsors the annual Flagship Program on Health Sector Reform and Sustainable Financing and more than 400 Africans have participated in this program since its inception in 1997. WBI also offers the following programs: “Achieving the Millennium Development Goals: Poverty Reduction, Reproductive Health, and Health Sector Reform” and “Achieving Poverty Reduction through Health and Gender.” The activities of the former are developed and delivered by networks of French- and English-speaking African institutions created and supported by WBI. The latter has used innovative distance training strategies to reach high numbers of African participants since 2000.

WBI sponsors online forums and an online journal, which includes articles on topics such as “Tanzania’s Community Health Fund: Prepayment as an alternative to user fees” (August 2002) and “New prepayment schemes for health in Rwanda” (August 2000). WBI has an ongoing partnership with the Centre Africain d’Études Superieures en Gestion (CESAG), a regional institution based in Dakar (Senegal) that offers the Flagship course to French-speaking countries in Africa in an effort to contribute to building a critical mass of national and regional experts in health care financing and health economics. The team also joined forces with Education and Social Protection colleagues to organize workshops on strengthening the human development contents of PRSPs in Ethiopia (2003) and Kenya (2004).
IMPLICATIONS FOR WORLD BANK OPERATIONS

countries to stratify data on access, coverage, and outcomes by socioeconomic groups and have increased the focus on pro-poor strategies. Within PRSPs, PRSCs, and SWAs, the Bank and other partners can encourage participatory analysis of results and the application of lessons.

World Bank involvement in health sector reform efforts should ensure that clients frame objectives in measurable terms, obtain baseline data, adhere to plans for routine monitoring, conduct periodic household or clinic-based surveys, and publicly disseminate results. The use of financial information and the evaluation of expenditure data are areas where the Bank’s technical support is particularly important. The Bank and its partners can also help countries finance or implement globally standardized studies or surveys such as Demographic and Health Surveys and National Health Accounts. Although these surveys do not generally support subnational decisionmaking, the standardization of indicators and methods can allow national decisionmakers to recognize changes over time and to compare themselves with neighboring countries.

Developing systems to rigorously monitor and assess the impact of unproven strategies provides a clear opportunity to build the knowledge and evidence base and to ensure that strategies are guided by experience. Some basic standards could make an immediate difference. All investment projects, even PRSCs, should include a list of key indicators with baseline data. No operation should be permitted to proceed to appraisal without baseline data or a process for it. This is a fairly simple requirement that clients can outsource, and its potential impact is immense in terms of knowing whether strategies are having the intended effect as well as helping government communicate with stakeholders.

Nutrition information also needs to be used in decisionmaking. In most African countries the collection, analysis, and use of nutrition indicators in particular deserve more attention at all levels to generate awareness, track the impact of poverty strategies, create demand for services at the local level, and command public sector resources. Indicators in the health sector have been refined for many years, and most ministries of health know how to assess the impact of an immunization, malaria, tuberculosis, or child health program, but few African governments have determined how to measure the effects of changes in financing, institutional arrangements, public-private partnerships, or staffing on health outcomes. There is a need—not limited to Sub-Saharan Africa—to develop appropriate models for monitoring health reform.
The most relevant knowledge about how to improve health outcomes for the poor in Sub-Saharan Africa will be that gained from country experience. Standardized indicators for measuring the impact of reform measures would more readily allow comparison of strategies across countries. With WHO Regional Office for Africa (WHO/AFRO), the World Bank can help define and promulgate standard indicators for measuring changes in efficiency and system effectiveness. The Bank’s experience in public sector management and in public finance should inform such efforts. The Latin America and Eastern Europe Regions have developed, respectively, a Clearinghouse on Health Sector Reform and an Observatory on Health Care Systems (Latin American and Caribbean Regional Health Sector Reform Initiative n.d.; WHO 2004a). Similar initiatives within the Africa Region could promote and foster standards for evaluation and health systems research, collect and disseminate findings across countries, and synthesize and disseminate experiences and good practices.

The Bank’s health operations in Africa between 1975 and today provide a wealth of lessons from experience to guide Bank policy advice. The Bank’s evaluation requirement is embodied in the Implementation Completion Report (ICR). The standards for ICRs are fairly rigorous, but they remain weak in providing empirical evidence, especially on the effects of health sector reform initiatives on health outcomes, system capacity, access to services, or costs and expenditures. Although ICRs are often assigned to junior staff, the most experienced staff should lead evaluation efforts and be challenged to expand the relevance and contribution of ICRs. Given the critical need for information on health reform strategies in Africa, the standard for evaluating Bank-financed health operations should be the Intensive Learning ICR. These reports cover the same areas as traditional ICRs, but involve more extensive analysis and consultation with stakeholders and beneficiaries.

The World Bank cannot achieve its objectives without partnerships

Internal partnerships, including those with the Human Development Vice Presidency, the International Finance Corporation (IFC), the Development Economics Vice Presidency (DEC), and the World Bank Institute
Country-level partnerships are essential to complement the Bank’s contribution

More than 250 international development assistance agencies are working in the health, nutrition, and population sectors in Africa, including NGOs, bilateral agencies, UN agencies, and three development banks. Mozambique has more than 100 development partners in its health sector, Ethiopia 85, and Senegal and Mali more than 75 each. Many of these partners provide financial resources and technical advice and push for certain policy reforms, but such assistance is increasingly being coordinated around locally designed and locally owned sector development programs.

In SWAps and PRSCs, the Bank and its staff rely much more heavily on development partners (WHO, UNICEF, bilaterals, NGOs) to provide support to the biomedical, scientific, and household- and community-based dimensions of the country’s health goals and objectives. Recognizing the comparative advantages of Bank partners is as important as focusing efforts and contributions around the Bank’s institutional comparative advantage. The strategic effort of the Bank’s Africa health team assumes an environment in which the Bank’s contributions complement those of other actors. Sector staff cannot expect the Bank’s focused and limited efforts to result in an impact on health outcomes in the absence of actions by partner agencies and institutions. This codependency is an inevitable result of efforts to foster each partner’s comparative advantage and to mobilize each agency’s comparative advantage to benefit World Bank client countries.

The Bank should thus engage with a wide range of partners at the country level, including government, civil society, the private sector, academia, the press, and other development partners. Bank staff are expected to work closely with key institutional partners throughout all stages of country operational work. At a minimum, key development partners should be informed (notified in advance and briefed) of World Bank missions; financing decisions such as agreements with government on consultancies, large procurements, and infrastructure; and the results of studies and analytical work done by the Bank or with Bank
financing. When health sector specialists reside at the Bank’s resident mission, such communication and collaboration should be continual. Bank staff should also recognize the comparative advantage of each partner, directing clients to these partners for support in specific areas and deferring to the partners in areas where the Bank does not hold the comparative advantage.

At a minimum, Bank sector specialists in Africa should institute partnerships with regional and national offices of the African Development Bank, WHO, UNICEF, UNFPA, GFATM, UNAIDS, the Food and Agriculture Organization (FAO), and bilateral agencies working in Bank client countries. WHO/AFRO is a particularly important partner for the Bank; staff in each institution require a better understanding of the other’s expertise and modes of operating, and consistent efforts to bring the two agencies together would clearly benefit client countries. Also, the Bank’s Africa Region confirmed its commitment to the New Partnership for Africa’s Development (NEPAD) at the African Development Bank’s Annual Meeting in May 2002 and at the 35th Session of the Conference of African Ministers of Finance, Planning, and Economic Development in October 2002.

**Regional and global partnerships can provide strategic advantages**

Partnerships will include those with the foregoing agencies and institutions, but also those with industry, the private sector, and academia. The perspectives of these institutions can broaden the Bank’s perspective and understanding. For example, knowing that bednet and insecticide manufacturers are willing to lower prices and increase accessibility to products in Sub-Saharan Africa if the market is not disrupted by the “dumping” of nets by donors or governments has helped the Bank advise countries on sustainable approaches to increasing bednet coverage.

Institutional incentives to engage in partnerships could be more strategic. Travel to liaise with global partners is an important input, as are resources to facilitate participation in joint studies and exchanges of information. Individual staff members have difficulty identifying and taking advantage of global partnerships on their own, yet they are often asked to support global and regional partnerships that may not always be perceived as directly supportive of operations. Demands for staff participation come from UNAIDS, GFATM, Stop TB, Roll Back Malaria
(RBM), the Safe Motherhood Initiative, the Global Alliance for Vaccines and Immunization (GAVI), the Global Alliance for Improved Nutrition (GAIN), and many others.

Participation in selective global or regional partnerships can help the Bank complement the efforts of partners and improve health outcomes among the poor. The role and function of each type of partnership need to be considered ahead of the Bank’s Africa Region’s actual contribution. Some partnerships will not involve more than the stated commitment of the Bank to a common objective, approach, or way of operating, while others will ensure that the Bank remains aware of global knowledge standards and recommendations and will allow staff to contribute the Bank’s experience, expertise, or perspective toward developing global knowledge around a specific set of issues.

More demanding are partnerships in which the Bank makes an explicit commitment to contribute through its operations and nonlending activities (as with GFATM in Lesotho and Swaziland), or where the Bank’s convening power is expected to contribute to certain objectives. The Bank’s Africa Region must budget for staff time and travel and adjunct nonlending work in these partnerships, as it has done for HIV/AIDS; when it has not, it has been viewed as reneging on its commitments.

Finally, certain important partnerships, such as the onchocerciasis program, focus on addressing specific diseases. In these partnerships, the Bank acts as the trustee or coordinating agency (box 7.4). These partnerships can be highly productive when accompanied by significant administrative funds and explicitly embedded in the overall operational health sector involvement of the Bank at the country level. In any case, they need to be considered in the context of the Bank’s Africa Region’s strategic orientation and priorities.

Box 7.4 APOC represents a unique health partnership for the World Bank

The African Programme for Onchocerciasis (river blindness) Control (APOC) builds upon the earlier success and achievements of the West African River Blindness Programme (OCP) that covered almost all West African countries. APOC has brought together an additional 19 African countries with the program’s 80 development partners and the private sector participation of Merck & Co., which has donated more than one billion tablets of Ivermectin—at a value exceeding US$1 billion—since 1988. The program employs community-driven treatment and will ultimately treat 90 million people.

Conclusion

The World Bank can employ both lending (resource transfer) and nonlending (dialogue, advocacy, analysis, monitoring, and evaluation) to support client countries in the improvement of health outcomes for the poor. Approaches to lending are changing to ensure that external resources are well coordinated, respond to national priorities, and make a sustainable contribution. Increasingly, lending is provided through a Sector-Wide Approach or a Poverty Reduction Strategy Credit. Even where the Bank is not providing resources for the HNP sector, it has opportunities to influence outcomes through other sectors. This shift affects the way the Bank manages its country operations and expands the scope of staff responsibility.

The Bank has also been coordinating efforts in the international development community to ensure that client countries in Africa can define and lead their own poverty reduction and development strategies. The Bank thus has a particular responsibility—one that will not be assumed by any other partner—to ensure that development efforts in health, nutrition, and population in Africa are supported with sufficient evidence and that client countries are able to build health development strategies that are fully informed by relevant global and national experience. A combination of analytical work and strengthened monitoring and evaluation will be key to building the knowledge base. Ultimately, evidence on what will strengthen health systems and health financing in Sub-Saharan Africa in ways that will improve the lives of the poor can best be developed and disseminated within the region. The Bank could make a significant contribution by investing in a regional clearinghouse or observatory.

Working in partnership is inevitable; partnerships must be formed between the Bank and its clients, between governments and civil society, and across the many development assistance agencies working in health, nutrition, and population in Sub-Saharan Africa. Without effective partnerships, efforts to focus on the Bank’s comparative advantage may not benefit client countries.
Notes

Foreword

1. For readability and convenience, “health,” “health sector,” and related terms will be used throughout the report to stand for health, nutrition, and population.

2. Other low-income/low-capacity countries outside Africa include Nepal, Laos, Cambodia, Afghanistan, Bhutan, Myanmar, East Timor, North Korea, Mongolia, Kyrgyzstan, Uzbekistan, Tajikistan, Moldova, Albania, Kosovo, the West Bank and Gaza, Yemen, Nicaragua, Haiti, El Salvador, Guatemala, Papua New Guinea, and several South Pacific Island nations.

Chapter 1

1. Countries are defined as “on track” when the rate of progress required over the annual rate of progress toward the goal registered during the trend period is one or less than one. Countries are defined as “moderately off track” when this result is more than one, but less than or equal to two. “Seriously off track” countries are those where this result is more than two.

2. The Demographic and Health Surveys (DHS) are globally standardized approaches to gathering nationally representative data on maternal and child health, reproductive health, and HIV/AIDS.

3. The Multiple Indicator Cluster Surveys conducted by UNICEF measure progress toward mid-decade goals (1995) for child health and development.

4. The disability-adjusted life year is a composite measure used to quantify the burden of disease; it reflects the total amount of healthy life lost whether from premature mortality or illness.

5. New evidence suggests that these numbers may be on the high side. New population-based models put the numbers around 20–25 percent lower. See Boerma, Ghys, and Walker (2003).

6. This excludes Mauritius, Seychelles, and South Africa.

7. The ratio of the population that is below 15 and above 65 (dependents) to the population aged 16–64 (working-age potential income earners).

8. The total fertility rate is the number of children that would be born to a woman if she were to live to the end of her childbearing years and bear children in accordance with prevailing age-specific fertility rates.
9. On a scale of 1 to 10, where 1 is the highest perception of corruption and 10 the lowest.

10. Includes North Africa.

11. The Commission was established in January 2002 by the Director General of WHO to “assess the place of health in global economic development.”

Chapter 2

1. The Millennium Development Goals (MDGs) set targets for reductions in poverty, improvements in health and education, and protection of the environment. The goals have been adopted by the World Bank, the International Monetary Fund, the members of the Development Assistance Committee of the OECD, and many other agencies. The goals found a new expression in the Millennium Declaration of the United Nations, adopted by the General Assembly in September 2000.

2. Schistosomiasis (also called bilharzia) is a parasitic, water-borne disease; its short-term effects include diarrhea, and its long-term effects include retarded growth and poor school performance in children, as well as damage to internal organs.

3. A large part of out-of-pocket spending goes to nonessential high-cost drugs and to brand name drugs.

4. There was only one HNP operation prior to 1982 in Africa, Kenya’s 1st Population Project in 1974. This figure includes 10 Multi-country AIDS Projects (MAP) for US$434 million.

5. PRSCs are adjustment lending instruments that support the country’s medium-term development and reform program to implement its poverty reduction strategy.

6. “Interventions” refers both to any action directly performed by an individual, provider, or caretaker in response to a particular health concern, including educational messages for behavior change, diagnostic techniques, or curative care, and to any collective mode of delivery, including community-based distribution of contraceptives, peer-to-peer counseling, social marketing of oral rehydration salts, and school health programs.

7. The NIH (USA), the Pasteur Institute (France), the London and Liverpool Schools (UK), the Wellcome Trust (UK), INSERM (France), the Swiss Tropical Institute, the CDC (USA), the South African Medical Research Council, the Kenyan Medical Research Institute, the Noguchi Institute (Ghana), and others.

Chapter 3

1. The 14 are Angola, Burundi, Cape Verde, the Central African Republic, Congo, Côte d’Ivoire, Eritrea, Ethiopia, Niger, Nigeria, São Tomé and
Principe, Somalia, Sudan, and Togo; the 18 are Burkina Faso, Chad, Comoros, Equatorial Guinea, The Gambia, Guinea, Lesotho, Liberia, Madagascar, Malawi, Mauritania, Mozambique, Namibia, Rwanda, Senegal, South Africa, Tanzania, and Zambia.

2. The share of public expenditure allocated to health is similar within the Asia region, which is a region of larger countries with a much broader resource base than Africa’s. However, the share of public expenditure allocated to health is much greater in Latin America.

3. The governments of Burundi, the Central African Republic, Chad, Ethiopia, Liberia, Niger, Nigeria, Sierra Leone, Sudan, Togo, and Uganda all spend US$4 or less per person on health.


5. Including Burkina Faso, Ghana, Mauritania, Mozambique, Tanzania, and Uganda.

6. Both in terms of the individual service, which could often be provided at less cost by a lower level facility, and in terms of what services are provided. Central referral hospitals are generally expected to provide specialized curative services that do not target the main causes of death and disability among the poor.

**Chapter 4**

1. This section draws on material in Listorti and Doumani (2001) and in Floor (2001).

2. More regularly collected and reported, low weight for age has been most commonly employed as an indicator of malnutrition.

3. Dichloro-diphenyl-trichloroethane (DDT) has been effectively used in household and community spraying programs for mosquito control in malaria-affected areas, and although it is unlikely to cause harm when targeted for malaria, many alternative products that cause less concern are available today.

4. Disability-adjusted life years are the sum of years of potential life lost due to premature mortality and the years of productive life lost due to disability.

5. Between 1987 and 1995, vehicular deaths rose by 39 percent in the Asia-Pacific region, by 26 percent in Africa (excluding South Africa), by 36 percent in the Middle East and North Africa region, and by more than 100 percent in Latin America and the Caribbean, excluding Brazil (Jacobs, Aeron-Thomas, and Astrop 2000).

Chapter 5

1. The HIPC Initiative, the Global Fund to Fight AIDS, Tuberculosis and Malaria, the Global Alliance for Vaccines and Immunization, and others.

2. Up-to-date statistics on human resources for health in Africa are scant, and when available they remain difficult to standardize and compare internationally (Diallo and others 2003). Published figures of health personnel to unit population ratios from the 1960s through the mid-to-late 1990s clearly indicate severe shortages. The average ratio of doctors per 100,000 people in Sub-Saharan Africa was 17.1, compared with an average of 303.7 in nine selected industrial countries. For nurses, the same comparison was 89.7 in Sub-Saharan Africa and 723.6 in industrial countries. On average, African countries had about 1/17 the doctors and 1/8 the nurses of developed countries. Even compared with other emerging countries, sub-Saharan numbers are strikingly low. For India, Korea, and Singapore and Vietnam combined, the average number of doctors per 100,000 people was 98.7, and for nurses, 221.1.

3. In Ghana, the Village Health Worker system and the idea of training traditional birth attendants have been questioned and opposed by professional associations such as the National Registered Midwives Association. In response, the country is moving toward reducing and repurposing existing cadres into multipurpose health workers (Dovlo 2001). In Malawi, the nursing profession currently opposes the government’s project to create a cadre of nursing auxiliaries.


5. The Bank also developed a regional work program (WHO and World Bank 2002).

6. Following the Addis Ababa meeting, the Rockefeller Foundation launched a “learning initiative on HRH” to spur the international community to give greater attention to this critical issue. Seven working groups have been created, with experts and donors’ representatives from all regions of the world. The initiative currently has the support of CIDA, DANIDA, DFID, GTZ, SIDA and WHO.

7. Pharmaceuticals include drugs, contraceptives, vaccines, micronutrients, biologically active devices and implants, and diagnostic biological and reagents.

8. This figure was compiled from procurement data on health sector projects in Sub-Saharan Africa from FY98 to FY01. It only represents large
procurements, i.e., those for which the Bank’s prior review was required. It therefore is undoubtedly an underestimate.

9. For example, data suggested that 80 percent of pharmaceuticals consumed in Kenya and Nigeria are imported; Tanzania also imported 75 percent of its total pharmaceuticals in 1988 (Klimek and Peters 1995).

10. For example, a major debate occurred in South Africa, in the context of limited access to HIV drugs, over whether South Africa’s Medicines and Related Substances Act is TRIPS compliant (specifically Section 15(c), which authorizes parallel trade and compulsory licensing).

11. “Injections” here do not include vaccines; worldwide the ratio of curative injections to vaccines is 20 to 1 (WHO 1999b).

12. Directly observed treatment, short course

13. Performance-based management characterizes the way health systems are managed to support the principle of government-led development programs (sectorwide approaches, PRSs). It is an institutionalized process for strengthening systems by translating strategies into performance objectives, measuring the performance against these objectives, and then measuring the results to improve performance again.

14. Strategies for Enhancing Access to Essential Medicines (SEAM) is a project of Management Sciences for Health, with funding from the Bill and Melinda Gates Foundation.

15. UNICEF’s Facts for Life is a publication that describes household and community actions of demonstrated efficacy to improve child health.

Chapter 6


2. Better Health in Africa (World Bank 1994) suggested that, in 1992, US$12 per capita annually was required to finance basic health, nutrition, and population services, including the investment costs required. (BHA’s estimate included US$4 for water and sanitation.) The 2001 Report of the Commission on Macroeconomics and Health (WHO Commission on Macroeconomics and Health 2001) states that a similar package will cost US$34.

3. In 2000, countries with a per capita GNP below US$885 were eligible for IDA financing. This threshold, and the eligibility criteria, are reassessed annually.

4. The education, environment, and agriculture sectors have similarly set share-of-expenditure targets. Collectively, such targets may be unreasonable.
5. Under the HIPC Program, debt servicing relative to GDP is expected to drop from 3.3 percent to 1.8 percent, while debt servicing relative to government revenue is expected to decline from 26.0 percent to 11.8 percent. For most African countries, the reduction in debt service obligation is large relative to current public spending on education and health, and can be nearly as much as total health and education spending (for example, in Guinea and Mozambique).

6. Pooling allows the risks of medical need with its associated costs to be shared by multiple parties, each contributing designated amounts but benefiting only when specific medical needs arise.

7. Calculated per Aid for Health data collected by OECD-Development Assistance Committee and health expenditure data by World Bank World Development Indicators (WDI) 2003.

8. The Commission on Macroeconomics and Health was initiated by WHO in 2000, and was managed by WHO and Harvard University. It was charged with assessing the impact of health on development and considering how investments in health could have a positive impact on economic growth.

9. IDA credits are zero interest loans repayable over 30–40 years, with a 10-year grace period before repayment commences. Because money decreases in value over time, a large share of each credit is effectively grant financing.

10. That is, funds that are restricted to specific activities, such as AIDS, reproductive health, tuberculosis, malaria, or a project of defined scope.


12. Fungibility recognizes that financing with one designation can substitute for financing of another designation. Thus, governments can reallocate expenditures in such a way that earmarked financing can supplant non-earmarked financing, facilitating expenditures that may not be desired by the financier.

13. External funding for health sector projects brings foreign exchange, but many project activities will actually require local currency. The government may print more money to be able to pay for the increased local expenditures with local currency (possibly adding to inflation), and use the foreign exchange for totally unrelated import expenditures such as tractors for agriculture, turbines for energy, or arms for the military.

14. The Price Elasticity of Demand measures the change in demand due to a change in price. The formula employed is the percent change in demand divided by the percent change in price. “Highly elastic” means that consumers reduce their use significantly when prices increase. “Inelastic” means that consumers continue to demand a similar level of services even as prices increase.
15. Integrated Management of Childhood Illness is generally agreed to be the most cost-effective approach for correctly classifying and treating a sick child with a fever in a health center.

16. Counting respiratory rate is the most effective way to diagnose pneumonia in young children.

18. Capitation is a mode of payment whereby providers are responsible for a defined population and are paid a fixed amount per head based on providing designated services to that population.

Chapter 7

1. Examples include USAID’s Rational Pharmaceutical Management Project, USAID’s BASICS Project for child survival, the Swiss Tropical Institute, and DfID’s Malaria and Maternal Health Knowledge Programmes.

2. As has happened, for example, with river blindness in Sierra Leone and poliomyelitis in the Congo, Angola, Guinea Bissau, and Southern Sudan.
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Sub-Saharan Africa continues to struggle with the challenges of communicable disease, malnutrition, and high fertility. Because health, nutrition, and population greatly affect poverty reduction efforts, the World Bank has a role to play in responding to these challenges. *Improving Health, Nutrition, and Population Outcomes in Sub-Saharan Africa* explains how that role is shaped by three factors—countries’ setting of priorities, provision of resources through specific programs, and the Bank’s expertise in analysis, knowledge transfer, and policy advice. The authors argue that the Bank can have the greatest impact by coordinating its efforts with partners and by focusing on its areas of comparative advantage: macroeconomics and health, multisectoral action for health, and health sector reform (systems and financing).

*Improving Health, Nutrition, and Population Outcomes in Sub-Saharan Africa* provides valuable information to the Bank’s clients and partners about how the Bank views its role in responding to Africa’s health, nutrition, and population challenges.