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STAFF APPRAISAL REPORT

REPUBLIC OF GHANA

HEALTH SECTOR SUPPORT PROGRAM

September 25, 1997

Human Development III
Ghana Country Department
Africa Region

CURRENCY EQUIVALENTS

(as of August 1997)

US$ 1 = Cedi 2,165
Cedi 1 million = US$ 462
SDR 1 = US$ 1.35

WEIGHTS AND MEASURES

Metric System

ABBREVIATIONS AND ACRONYMS

ADB	African Development Bank
BMC	Budget and Management Center
CAS	Country Assistance Strategy
DANIDA	Danish International Development Assistance
DFID	Department for International Development (UK, formerly ODA)
DHMT	District Health Management Team
DHS	Demographic and Health Survey
EC	European Commission
ERP	Economic Recovery Program
FY	Fiscal Year
GDP	Gross Domestic Product
GHS	Ghana Health Service
GTZ	Gesellschaft for Technische Zusammenarbeit
HIV	Human Immunodeficiency Virus
ICB	International Competitive Bidding
IDA	International Development Association
IGF	Internally Generated Funds
IMF	International Monetary Fund
JICA	Japan International Cooperation Agency
MOF	Ministry of Finance
MOH	Ministry of Health
MTHS	Medium Term Health Strategy Toward Vision 2020
NCB	National Competitive Bidding
NGO	Non-Governmental Organization
PER	Public Expenditure Review
PHC	Primary Health Care
PHRD	Policy and Human Resources Development (Japanese Grant)
PIP	Public Investment Program
POW	Health Sector Five Year Program of Work
PUFMARP	Public Sector Financial Management Reform Program
SDR	Special Drawing Right
SOE	Statement of Expenditure
UNDP	United Nations Development Program
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
WHO	World Health Organization

FISCAL YEAR

January 1 - December 31

Vice President:	Jean-Louis Sarbib, AFR
Country Director:	Kazi Matin (Acting), AFC10
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HEALTH SECTOR SUPPORT PROGRAM

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This report is based on the findings of a task team led by David Peters (AFTH3), and included Shiyan Chao, Selvi Chellamuthu, Irene Xenakis (AFTH3), Tsri Apronti, Gregory Hancock, Albert Wright (AFMGH), Olikoye Ransome-Kuti (AFTHR), Bertrand de Chazal, Abdul Haji, Francesco Sarno (AFTS3), Asad Alam, Sibabrata Das, Kazi Matin (AFTM4); and Said Al Habsy (LEGAF). The team benefited from close collaboration with staff and consultants from other donor agencies, particularly Jens Hasfeldt, Finn Schleimann, Rick Werner (DANIDA); Franco Conzata, Mark Wheeler (EC); Joanne Alston, Anne Bamasaiye, Andrew Cassels, Penelope Key, Ken Lee (DFID); Jama Gulaid, Ken Williams (UNICEF); Pamela Wolfe, Robert Halliday (USAID); and Brian Dando, Katya Janovsky, and Martin Mandara (WHO). Mr. Richard Feachem (HDD) served as Lead Adviser, and Dr. Sergiu Luculescu (AFTH2) and Mr. Willy De Geyndt (ASTPH) served as peer reviewers. The acting Country Director is Mr. Kazi Matin, and the Sector Manager is Ms. Helena Ribe.

ANNEXES

MAP: IBRD 28665

REPUBLIC OF GHANA
HEALTH SECTOR SUPPORT PROGRAM
CREDIT AND PROGRAM SUMMARY

Borrower:	Republic of Ghana
Implementing Agency:	Ministry of Health
Beneficiaries:	Population of Ghana
Amount:	SDR 25.1 million (US$35.0 million equivalent). Upon disbursement of 75 percent of the proposed Credit, a request will be made for approval of the Executive Directors for a follow-up Credit (estimated at US$35 million), the next of a planned series of Credits to continue funding subsequent phases of the Program of Work (POW). Requests for follow-up Credits will be based on the evaluation of the performance of the Borrower under the POW, in accordance with the agreed Ghana health sector performance indicators.
Terms:	Standard IDA, with 40 years maturity
Program Objectives:	The purpose of the Credit is to support the Government's reform of the health sector through implementation of its *Medium Term Health Strategy Toward Vision 2020* (MTHS). The MTHS states that the goal of the health system is to improve the health of Ghanaians by increasing access, quality, and efficiency of health services, and forging linkages with other partners in health development.
Program Description:	The Credit will support a sector-wide reform program, financing a time-slice of the combined Government and external assistance budgets for developmental and operational activities. The main strategies financed over the medium-term are to: (a) improve access, quality and efficiency of primary health services; (b) strengthen and reorient secondary and tertiary service delivery to support primary health services; (c) develop and implement a program to train adequate numbers of new health teams to provide defined services; (d) improve capacity for policy development and analysis, resource allocation, performance monitoring and evaluation, and regulation of service delivery and health professionals; (e) strengthen national support systems for human resources, logistics and supplies, financial management and health information; (f) promote private sector involvement in the delivery of health services; and (g) foster and pursue intersectoral action, specifically in population, food and agriculture, social welfare, local government, education, and water and sanitation agencies, and particularly to finance health sector activities defined in the *National Population Policy Plan* and the *National Plan of Action on Food and Nutrition*
Benefits:	The long range benefits are improved levels of health and nutrition, particularly for the poor living in under-served areas. In the medium term, the health sector will be strengthened and made more responsive to the public. This will be measured through improved service delivery (e.g. utilization levels, unit costs, and quality of care) and strengthened institutions (e.g. budget and plan execution). The sector approach fosters local ownership of health programs, builds institutional capacity to operationalize sector policies and improve efficiency and equity of health services,

empowers households and communities in health decision-making, and streamlines donor assistance to reduce wastage.

Risks: One of the main risks concerns the decentralization of budgeting and financial management, because of political sensitivities and the limited experience of budget and management centers (BMCs) to manage funds. This risk is being mitigated by certifying a limited number of BMCs to manage funds based on their capacity, and by fitting sector plans within the broader plans to build up financial management capacity in the public sector, training staff and developing guidelines to manage funds. The first years' experience with decentralizing funding has been very positive. The possibilities of not coordinating donor funds with program priorities, or of not meeting the challenges of implementing an ambitious program (especially to use common implementation procedures for procurement) are other risks. To deal with these risks, a regular Government-donor forum has been established to monitor an agreed operational framework for allocating donor and Government funds according to priorities, with plans focusing on system development (e.g. procurement and information management), and increasing local responsibilities as capacity increases. A memorandum of understanding between Government and donors outlines many of the operational implications. The risk that Government would not maintain its financing commitments to the POW, should macroeconomic management deteriorate, is also possible. In such circumstances, part of IDA's response would be through enhanced policy dialogue. Within the sector, IDA would be able to vary its annual commitments to the POW according to GOG fiscal effort, and be able to coordinate sector financing with other donors. A related exogenous risk has been the introduction of capital projects considered costly and of lower priority than other investments. The consortium of donors has worked with Government to set up processes to limit these occurrences. It is also possible that various interest groups may not give full support to the program. This is being mitigated by involving many stakeholders in the preparation, implementation, and monitoring of the program. As well, efforts are being made to obtain broad public support for the reforms. However, it is only when health services are discernibly improved that public support for the program will be sustainable.

Program Budget Summary (1997-2001)
(US$ millions, including taxes and duties)

Sources	1997	1998	1999	2000	2001	TOTAL
GOG						
Recurrent	52.2	67.7	77.7	88.3	104.9	390.8
Capital	19.8	21.4	21.1	21.7	25.8	109.8
Internally Generated Funds	8.5	9.2	9.6	10.4	11.1	48.8
Commercial Loans	54.8	22.2	0.0	0.0	0.0	77.0
External Aid	37.6	40	40	40	40	197.6
Recurrent	19.5	25.3	12.0	12.6	16.7	86.1
Capital	18.1	14.7	28.0	27.4	23.3	111.5
Total -Recurrent	80.2	102.2	99.3	111.2	132.7	525.6
Total - Capital	92.7	58.3	49.1	49.1	49.1	298.3
TOTAL BUDGET	**172.9**	**160.5**	**148.4**	**160.3**	**181.8**	**823.9**

Current Financing Commitments to the Program of Work 1997-2001

Financier	Amount (US$ million)
Government	**500.6**
Beneficiaries	**48.9**
Total External Assistance	**192.1**
ADB	4.4
BADEA	4.5
CIDA	0.2[1]
DANIDA	10.1[2]
* DANIDA - proposed	20.0 (staff projection)
DFID	0.7
* DFID	40.0
Dutch Government	9.6
EC	2.2[3]
* EC - proposed	9 (staff projection)
GTZ	4.5[1]
JICA	0.9
OPEC	5.0
Saudi Fund for Development	2.3
UNFPA	10.0
UNICEF	10.0[4]
USAID	12.0[5]
WHO	4.3
IDA (CR 2193-GH)	4.0
IDA - PHRD Grant	0.6
* IDA Credit	35.0
Commercial Loans	**77.0**
Total Program Commitments	**817.6**
Total Program Costs	**823.9**
Current Indicative Financing Gap	**6.3**

* Denotes flexible funds programmed annually with the budget exercise, and including some funds which are included in the common Health Account. Other agencies, notably UNICEF, the Dutch Government, and WHO also expressed intentions to contribute to these program funds. Most other donor financing is earmarked to projects operating within the POW.

[1] The CIDA and GTZ estimates assume $.04 and $1.1 million in project expenditures in 1996

[2] The current DANIDA support includes $6.6 million of earmarked funds, and $4 million of flexible project support for non-wage recurrent expenditures.

[3] EC also provides balance of payment support to the general GOG consolidated fund provided that there is a real increase in non-wage GOG expenditure to basic social services, including primary health care

[4] The UNICEF estimate is based on $2.5 million per year on POW expenditure over 4 years of program commitments

[5] USAID also provides $14 million to the general GOG consolidated fund based on family planning performance, and $14 million to health sector NGOs that are not captured in the POW financing. The estimate assumes $6 million of project was spent in 1995-96.

Estimated Disbursements of the IDA Credit

Estimated IDA Disbursements (US$ million)	GOG Fiscal Years				
	FY97	FY98	FY99	FY00	FY01
Maximum Annual	5.0	7.0	10.5	15.0	22.5
Maximum Cumulative	5.0	12.0	22.5	37.5*	60.0
Low Case Annual	5.0	7.0	7.0	7.0	7.0
Low Case Cumulative	5.0	12.0	19.0	26.0	33.0

* A new credit would be sought after $26 million is disbursed

Project ID No.: GH-PE-949

REPUBLIC OF GHANA
HEALTH SECTOR SUPPORT PROGRAM

1. INTRODUCTION

A. COUNTRY ECONOMIC FRAMEWORK

1.1 Ghana has experienced drastic changes since independence in 1957. After relative prosperity in the 1960s, the economy experienced unprecedented deterioration, with falling GDP, soaring inflation, and devastating poverty. The Government adopted the Economic Recovery Program (ERP) in 1983, and turned the economy around. Following eight years of sustained fiscal adjustment and falling inflation since the start of the ERP in 1983, Ghana's fiscal performance received a setback during the run-up to the 1992 general elections and has remained fragile since then. Expenditure over-runs have resulted in large fiscal deficits and rising inflation. Though divestiture receipts helped to finance the excess expenditures in most of these years, the impact on inflation and public debt was unavoidable. On a year-end basis, inflation rose from 10 percent in end-1992 to 71 percent in end-1995 and interest obligations rose from 1.5 percent of GDP in 1992 to 4.5 percent of GDP in 1995. The latter was due to the growth in domestic debt and in Bank of Ghana's open market operations as well as the rising nominal interest rate. Since 1994, the Government has had to borrow domestically to service part of the interest bill, an unsustainable situation.

1.2 In the face of rising inflation and balance of payments pressures, the Government entered into a three-year Enhanced Structural Adjustment Facility (ESAF) with the IMF in June 1995. The first year of the ESAF was completed in June 1996. However, large fiscal slippages, mostly in the second half of the year, has delayed the start of the second year of the ESAF which is now scheduled to go to the IMF Board in October, 1997. The narrow fiscal deficit in 1996 was 3.2 percent of GDP compared to the program target of a surplus of 1.8 percent of GDP, a slippage equivalent to 5 percent of GDP. This was primarily due to over-runs in development expenditures and in non-interest recurrent expenditures. Shortfalls in revenues from import taxes, excise taxes on petroleum, and non-tax sources also contributed to the slippage. Interest obligations increased to 5.6 percent of GDP and the Government's domestic borrowing was equivalent to 5.1 percent of GDP.

1.3 Notwithstanding the large fiscal slippage, the economic out-turn in 1996 was favorable. Real GDP grew by 5.2 percent largely on account of agricultural growth of 4 percent. Inflation fell from 71 percent at the end of 1995 to 29 percent by June 1997. This was due, in part, to the lagged effects of fiscal and monetary restraint in the first half of 1996 and, in part, to lower cost push factors emanating from a good harvest, postponed adjustments in petroleum and power tariffs, and lower nominal depreciation of the Cedi due to foreign exchange market interventions. However, on the external side, the current account deficit was slightly larger than programmed, foreign exchange reserves were lower than programmed, and medium-term non-concessional external borrowing significantly higher than programmed.

1.4 Despite its achievements, Ghana remains a poor country with a per capita GNP of US$410. At least 31 percent of the population lives below its poverty line (the last national survey was in 1992). Ghana's future economic development will depend not only on good fiscal management and enhanced private sector development, but on a healthy and educated population to supply its labor force. Good health is itself an important asset and measure of people's well-being. Health services are needed to develop and maintain a healthy work force that contributes to a virtuous cycle of growth and prosperity. The health sector also comprises a substantial and growing part of the economy (nearly 3 percent in 1995), and consumes a sizable portion of public expenditure (7 percent of Government non-debt expenditure in 1996). From conception to death, the health system touches everyone's life in Ghana. Strengthening the health sector is thus a central focus of the country's development vision, as stated in Government's paper, *Ghana Vision 2020,* and the Bank's Country Assistance Strategy, which was discussed by the Board on September 4, 1997.

1.5 The health reform program, articulated in the *Medium Term Health Strategy: Towards Vision 2020* (MTHS) directly addresses several of the national development priorities of *Ghana Vision 2020.* These are to: (a) maximize healthy and productive lives of Ghanaians; (b) fairly distribute the benefits of development; (c) reduce population growth; (d) attain high economic growth; and (e) promote science and technology. The reforms already implemented by the health sector place it in the forefront of Government initiatives to decentralize and improve the quality of public services, renew the civil service, strengthen public financial management, and coordinate donor resources. Yet Government resources are limited, and external assistance will be needed to bolster Government and private inputs. Though Government provided nearly 10 percent of its recurrent resources to health when the ERP began, contributions fell from 1991 to 1995, despite large resource gaps in the health sector. As part of the current health program, Government is committed to increasing its recurrent expenditures, raising the total public expenditure on health from US$6 to US$9 per capita between 1996 and 2001 (excluding commercial lending in 1996-98). The distribution of health spending is also important. The four sectoral policy guidelines for resource allocation are to: (a) make more resources available for the attainment of universal access to primary health services and to shift the emphasis increasingly to the primary level; (b) increase the share of non-wage items in the total recurrent budget; (c) achieve a better balance between development and recurrent budgets: and (d) realign existing inequalities in Regional allocations.

1.6 In Ghana, the Bank has supported greater investment in health, particularly for basic services in under-served areas, since it is critical to improving people's welfare and reducing poverty. A central message of the Ghana poverty assessment (Report No. 14504-GH, 1995) is that future economic growth and the reduction of poverty will largely depend on human capital development, to which health services are a major contributor. This operation is thus designed to be part of the core poverty alleviation program in the Country Assistance Strategy because it will improve access to and the quality of health services, which are needed to build a base of human capital and contribute to the social sustainability of the adjustment process.

B. HEALTH SECTOR PERFORMANCE

1.7 Ghana has made considerable progress in the health sector since independence, giving Ghana the profile of a country at a critical turning point in the health transition (see Annex 1 for basic indicators). By 1993, life expectancy had increased from 45 to 56 years, and infant mortality dropped from 133 to 66 deaths per 1000 live births. The total fertility rate declined from 6.5 to 5.5 births per women between 1988 and 1993, with much greater declines in urban areas corresponding with increasing contraceptive use. Yet population growth is still high (2.8 percent between 1990-1994), and there are large unmet contraceptive needs (in 1994, 33 percent of married women of reproductive age wanted to postpone or avoid childbearing but were not using contraception). In contrast to mortality and fertility indicators that are improving at a faster pace than most of sub-Saharan Africa, many nutritional indicators in Ghana have not improved over the last five years. For example, the 1988 Demographic and Health Survey (DHS) estimated that among children aged 3-36 months, 30 percent were stunted, 31 were underweight, and 8 percent were wasted. In 1993, the DHS estimates were 26 percent, 31 percent, and 12 percent respectively. Micronutrient deficiency is also common, particularly of vitamin A, iodine, and iron. About 50 percent of women of childbearing age suffer from iron-deficiency anemia, contributing to the high levels of maternal mortality. Like other countries in early phases of the health transition, the pattern of disease in Ghana demonstrates a preponderance of communicable diseases, under-nutrition, and poor reproductive health (see Annex 2). The most common conditions seen at health facilities are (in decreasing order): malaria, respiratory infections, skin conditions, and diarrhea. Non-communicable diseases such as cardiovascular disorders, neoplasms and diabetes are emerging threats, while injuries are the fifth most common outpatient condition. The HIV epidemic is still in its early phases; the 1994 HIV sentinel surveillance showed that HIV seroprevalence among women attending antenatal clinics ranged from 1-9 percent, with a median of 2.5 percent among sample sites. It is projected that over 750,000 Ghanaians will be infected with HIV by the end of the century. Partly as a result of the HIV epidemic, the incidence of tuberculosis is also expected to rise.

1.8 The general improvement in health outcomes can mask some of the regional differences that exist. For example, infant mortality in Northern and Upper East Regions are nearly double the rates in Brong Ahonfo, Eastern, and Greater Accra Regions. Protein energy malnutrition is found to be much more severe in Northern, Upper West, Upper East, and Western Regions. Although urban areas have better indicators than rural areas, this also hides the problem of worse health conditions among the urban and peri-urban slums, and among migrant workers. Onchocerciasis, dracunculosis, and schistosomiasis are also important problems in focal areas of the country.

1.9 The factors underlying poor health conditions in Ghana are common to much of West Africa. A high level of poverty increases health risks and the ability to deal with illness. Female education is a critical factor, since many of the decisions about the health of the family are made by women. A low literacy among women (42 percent versus 64 percent for men) undermines the ability of many Ghanaians to make healthy choices about child-bearing, food distribution and nutrition, personal hygiene, and seeking health care. High fertility rates adversely affect the health of children and mothers, and result in a high population growth rate and shortages in the provision of basic services. Unhygienic conditions increase the likelihood of illness. In Ghana,

only 50 percent of the population have access to safe drinking water, and disposal of liquid and solid waste are grossly inadequate, particularly in urban areas. The varied nature of these underlying causes of poor health highlight the need for solutions that link the sectors involved.

1.10 **Structure of Health Services.** There are four main types of health care providers in Ghana: public; private not-for-profit (mission); private for-profit; and traditional (see Annex 3). Until the establishment of the Ghana Health Service (GHS) and teaching hospital boards during the program period, the Ministry of Health (MOH) will be the main provider of formal modern services. It is a hierarchical organization with a central headquarters in Accra, ten regional administrations responsible for supervision and monitoring, and district health teams in each of the 110 districts (see Annex 4). Public facilities include two teaching hospitals, ten regional hospitals, 48 district hospitals, and over 1,600 health centers and clinics based in subdistricts. The mission sector is estimated to provide coverage to 30 percent of the population covered by health services, predominantly in rural areas. They account for about 30 percent of hospital beds and 35 percent of out-patient care. There is a good working relationship between the public and mission sectors, with the Government providing salaries for many of the health workers at mission hospitals. The private for-profit sector is growing, particularly in urban areas, whose practitioners consist of physicians, midwives, pharmacists and laboratory technicians. In addition to having their own associations, private practitioners are registered by statutory bodies associated with the MOH. Traditional providers, who range from spiritualists, psychic healers, to herbalists, are likely the most popular first line of health care provider, though quantitative information on the levels of use and costs is not known. At present, traditional practice is not well regulated nor understood by the public sector, though stories of both dangerous practices and miraculous cures are common.

1.11 **Systemic Problems of the Health System**. Some of the main problems in health service delivery are well recognized by Ghanaians. In its Five Year Sector Program of Work 1997-2001 (POW), which details the operational framework for the health sector for the medium term, the MOH aptly summarizes the main problems as: (a) people cannot access the health care they need because of geographic distances, limited provision of basic services, and financial barriers; (b) inadequate service quality, a lack of quality assurance efforts and resource management results in services which do not respond to what people want; (c) inadequate funding of health services; (d) inefficient allocations of resources, with insufficient funding of primary services, misallocation of health personnel, and with inadequate benefits reaching the poor; and (e) poor community, intersectoral and private sector linkages. Overall, access and utilization of allopathic services are quite low. 30-40 percent of the population, mostly those in rural areas, do not have easy physical access to health services. Utilization of public curative services was about 0.39 visits per capita in 1996, though this has been increasing steadily since the late 1980s. However, the use of antenatal care is much higher, over 80 percent coverage in 1995, while 40 percent of births were supervised by trained health personnel. Traditional donor assistance has led to fragmented approaches to dealing with these problems. Rather than build Government systems to tackle these problems, each donor has tended to establish management and reporting systems for their own project, further serving to dissipate Government resources.

1.12 **Health Expenditure Patterns**. Absolute resources for the health sector have been shrinking over the last decade. Since 1990, the proportion of Government recurrent funds

expended in the health sector has also been declining. Although Government has allocated between 8-11 percent of the recurrent budget to health in the 1990s, and 2-9 percent of its capital budget, this represents between 1.0 to 1.5 percent of GDP, and from US$4 to US$6 per capita (see Annex 5). This places Ghana among the lower half of sub-Saharan countries in terms of Government expenditure on health (*Better Health in Africa)*, and represents a real decline from the late 1970s, when Government spent around US$10 per capita. The poor also receive proportionately less public expenditures than others. In 1992-93, Ghanaians from the lowest income quintile received 12 percent of public expenditure on health, compared to 33 percent for the top quintile. External support has increased for health sector, amounting to about US$30 million per year in 1995. The resources available for capital expenditures were not well known prior to the preparation of the sector program, and planning for new capital projects often bypassed the MOH. Private funding is poorly captured in official data, but is estimated to be about equal to the Government expenditure.

1.13 User fee policy has been a sensitive issue in Ghana. After user fees were initially introduced in 1985, utilization of health services at public clinics fell markedly. It took nearly ten years for utilization rates to recover to the same levels prior to the use of user fees. Many did not associate user fees with improvements in quality, though in the last five years, the availability of drugs may have improved with the use of "cash and carry" payment for drugs. Out-of pocket expenditures officially recovered at public facilities have been fairly stable in the last ten years, so that nearly 10 percent of Government recurrent expenditures are financed by these internally generated funds, which are used at the point of collection. This level of expenditures recovered is among the highest in Africa. However, current user fee practices are not transparent and create an obstacle for the poor to access health care. Whilst centrally approved official user fees have not changed since they were introduced, in practice fees have been rising due to unofficial fees and locally sanctioned official fees. Such fees are inequitable; they should subsidize the poor who are particularly vulnerable. Since they do not, the poor often do not seek care or seek care too late. Those conditions that have value as a public good should also be protected (e.g. free treatment of tuberculosis and sexually transmitted diseases), but are not currently exempted. Revising the exemption policies is a significant part of the current reform program. The reforms include making the fees more transparent to the public, building in a system to regularly review and change rates, exempting vulnerable groups, and incorporating incentives for patients to initially use primary services over more expensive services.

C. LESSONS LEARNED FROM BANK OPERATIONS IN THE HEALTH SECTOR

1.14 The Bank's first involvement in the sector was the 1986 Health and Education Rehabilitation Project (CR 1653-GH). This US$15 million IDA Credit provided emergency support for building and hardware purchases in the two sectors as part of the ERP, yet was implemented slowly due to limited involvement of senior MOH staff and scattered activities of the project. The current IDA-assisted Health and Population Project (CR 2193-GH) demonstrated that hardware for health services can be put in place relatively efficiently. We learned that having an implementation unit separate from the MOH does not facilitate implementation, but working through regular Government processes improves ownership and effectiveness. Having Bank staff in the field who can readily assist with implementation issues also improves results. We also recognized that supervising IDA-supported projects alone is not

enough to understand the sector, and that we needed to learn from and work with other partners to be effective. On implementation matters, we have effectively relied on agencies such as WHO, UNICEF and UNFPA to undertake specific tasks with Government using IDA finances (e.g. organize emergency supplies for meningitis epidemic control, procure bulk vaccines and contraceptives). IDA-financed construction has also benefited from site supervision supported by DANIDA. More broadly, we have benefited from wider consultation with other partners, and have concluded that in Ghana a more comprehensive approach is needed if: (a) policy, planning, and systems development are to progress; (b) the tendencies to duplicate efforts between donors is to be reduced; and (c) resource allocation is to be linked to policy implementation and actual results.

1.15 We have learned that systemic improvements in health systems, and in changes in healthy behaviors of individuals and communities require a long-term effort, yet are needed if health gains are to be sustained. In Ghana, health systems change has progressed slowly despite a number of short-term projects (including IDA-supported projects) that are designed to develop key systems, such as those for health information, financial management, community participation, human resources, and others. The current IDA-assisted project has provided considerable infrastructure support to district health management teams (DHMTs) and health centers, which may have been of limited value had DHMTs not benefited from years of management training (supported by WHO and other donors, including IDA). We have observed that as planning ability improved at district levels, implementation capacity was being limited by a lack of resources and authority over resource decisions. This situation has improved as reforms of the last two years were put in place and as efforts were made to strengthen accountability at regional and district levels. Yet we have also noticed, largely through work of DHMTs in the Upper West Region (supported by DANIDA) and Volta Region (supported by DFID) that considerable effort is needed to build capacity for technical and managerial supervision for DHMTs to remain effective. The much needed strengthening at the subdistrict level is even more labor-intensive, and will require a long-term effort. Development of management capacity at hospitals has been relatively neglected, yet will be critical in the coming years.

1.16 The Bank has benefited from dialogue with non-governmental organizations (NGOs) in the health sector, and has provided financial assistance to larger NGOs through the current IDA-assisted project (e.g. Planned Parenthood of Ghana, National Catholic Secretariat). We have recognized that NGOs are a diverse and significant group of organizations in the Ghana health sector that frequently have more flexibility in being responsive to communities. Yet NGOs also need to work within a policy framework and regulatory guidelines to fully contribute to sector goals, and financiers need to recognize that they may not be able to expand what they are currently doing without ongoing technical support. What the MOH and other agencies have found is that it is important to develop more regular communications between organizations, and that over the medium term, more formal arrangements between service provider organizations and financiers need to be developed.

1.17 Lessons from two World Bank studies have also been instrumental in the development of the program. *The World Development Report* 1993 has been used to guide the development of a cost-effective package of services. Ironically, the cost-effectiveness methodologies used in WDR 1993 borrowed extensively from work done in Ghana in the late 1970s. The

comprehensive review of African experience, *Better Health in Africa,* outlines processes for change along the lines of health policy and strategy development, Government commitment and collaboration with the private sector, cost-effective approaches to the delivery of care, and managerial development and institutional reform, all of which are central to the MTHS.

D. DONOR ASSISTANCE IN THE SECTOR

1.18 There are about 15 significant donor and technical agencies involved in the health sector, along with several international NGOs, and over 600 local NGOs. As described above, we have recognized that explicitly working with other health partners has been critical to learning about the sector and working more effectively. Donor agencies, excluding the Bank, have been estimated to spend about 27 percent of public expenditures on health. For the last three years, donor assistance has been estimated to be about US$30 million dollars per year (see Annex 5). According to a 1994 review of donor-funded projects, the largest item of donor expenditure is on supplies (35 percent), followed by equipment (19 percent) and civil works (17 percent), though technical assistance expenditures (3 percent) are greatly under-reported by donor agencies. The reporting of donor expenditures on health is quite weak and highly variable between agencies. For the most part, costs for overhead and technical assistance, and financing of NGOs are not well reported.

1.19 One of the major problems prior to the recent reform efforts has been the lack of an overall framework for integrating the many donor assisted projects. Investment decisions were made in isolation, there were many parallel projects, a lack of congruence of project aims with overall policy goals of the sector. Coordination of activities of donors and technical agencies, and multiple reporting requirements, was becoming increasingly unmanageable and disruptive to Government. These factors prompted Government to move to a more systematic and sector-wide approach, and to improve planning with donors. A forum for Government and donors, technical agencies, and some NGOs has been operational for many years in the health sector in Ghana. During the preparation of the health program, Government leadership became more evident, while the group of donors and technical agencies transformed into a more coherent consortium focusing on sector policy, allocation, and coordination of implementation. This consortium of collaborating agencies has worked out common positions in discussion with Government, with various agencies taking leadership responsibilities for different aspects of the program design and appraisal. Another key step has been the introduction of the MTHS and the new cycle of planning and review, which has been broadly welcomed by the health partners. There is now good understanding between Government and health partners on the main policy elements, and on support for the sector approach that Government is pursuing. There is also operational agreement on issues related to standardized per diem rates, and more work is being done to standardize consultancy procedures and payment. Under the program, health partners are expected to work with Government to use common planning systems, and increasingly to use common modalities for implementation, monitoring, and reporting.

E. RATIONALE FOR THE SECTOR APPROACH

1.20 Dissatisfied with an overly verticalized Ministry of Health and numerous traditional projects, each with their own plans, procedures, and reporting cycles, the MOH decided to

undertake a sector-wide approach to better achieve steady and sustainable health sector reforms. The sector program is comprehensive, and founded on a basic package of services designed to balance cost-effectiveness and the promotion of equity. The Bank, along with other collaborating agencies, has played an important role in supporting health reforms over the last three years. In addition to providing moral and technical support, there is now a need to follow up with flexible and timely lending. For Government to realize the MTHS goals, the Bank's continued participation in its design and implementation is needed to finance gaps in the program, to build macro-sector linkages, and to contribute to the maintenance of a partnership of Government, donors, technical agencies, and NGOs in the health sector.

1.21 The sector-wide approach is being pursued over other strategies because it best supports a Ghanaian-led initiative of health reforms that rationalizes donor inputs, promotes community and household empowerment, and encourages efficiency of service delivery. The approach enables Government and the consortium of donors, technical agencies, and NGOs to openly deal with a full range of public policy and allocation issues, including plans to deal with controversial investments and procedures which previously were not discussed. Traditional project designs have diverted implementation capacity and duplicated efforts, lowering the prospects for sustainability and limiting ability to coordinate financing with sector priorities. Supporting an alternative, project-based approach is contrary to a Government policy we have supported, and would result in a marginalized project with little ownership by the MOH. Without supporting the sector approach, the Bank and other donors would lose a critical forum to debate and plan health policy, strategy and allocation, and compromise the ability to collaborate effectively on common sector goals and strategies.

1.22 The design for financing the Credit was proposed to meet several objectives. Improvements in capacity utilization and health outcomes are recognized to require a longer time-frame than traditional short-term project cycles. This Credit is intended to be an initial investment in a long-term association with the Government of Ghana (GOG) and other partners in the health sector. The financing design operationalizes a long-term commitment, with flexibility to change the financing as increased capacity is demonstrated. The intention is to provide a baseline level of annual funding with the potential for increased IDA funds linked to performance, which supports several aims. This approach would best tailor Bank financial support in a way that reinforces the Government's budget processes, strengthening the policy procedures around the budget cycle, and leading to better sector planning and monitoring of expenditures. It also provides a healthy basis for significant sector monitoring, and for annual discussions between Government and donors. Starting with a small sized Credit, with the intention of requesting additional funds tied to performance is also good means to reducing the risk of tying up IDA funds unnecessarily (should disbursement not proceed as expected), yet creates a meaningful incentive for the Government to build capacity and improve performance. It also shifts the emphasis of the Bank involvement from one of approval of project preparation to monitoring of implementation performance.

2. THE HEALTH REFORM PROGRAM

2.1 Health sector reforms have been going on for many years in Ghana. Implementation of key reforms, notably the reorganization of the MOH and decentralization of responsibility and resources to DHMTs date back to the late 1980s. The current reform initiative, as described in the MTHS, emphasizes the development of systems through a sector-wide approach. The policy framework is intended to cover all activities in the health sector. This ranges from individual and household health decisions to formal service delivery, advocacy, institutional arrangements and policy addressing public and private providers, and other stakeholders and beneficiaries of the health sector. Public financing of the program is intended to cover all Government and donor-assisted activities, both recurrent and developmental, so that all inputs can be directed towards common objectives, even if managed in a highly decentralized manner. The reforms that Government is proposing are fully supported by the Bank's advocacy of sector-wide approaches, and has led to the following understandings: (a) IDA would follow Government's lead in the processes of sector reform in the context of its MTHS; (b) as many donors as possible need to collaborate on the POW, and that common implementation arrangements need to be sought over time; (c) local capacity, rather than long-term foreign assistance, should be strengthened and relied upon as much as possible; and (d) IDA would follow-up on sector-wide development and systemic issues, playing a role as financier of last resort as far as is practicable, so that IDA funding is fully flexible for an agreed program.

A. SUMMARY OF PROGRAM OBJECTIVES

2.2 The MTHS describes a sector reform program that supports the broad framework of national development outlined in *Ghana Vision 2020*. The ultimate aim of the health sector reforms is to improve the health status of Ghanaians, although many factors outside the health sector contribute to health. The two main goals of the sector program to support this aim are to:

(a) provide universal access to a basic package of health services, and improve the quality and efficiency of health services; and

(b) foster linkages with other sectors to: reduce population growth rate; reduce the level of malnutrition; increase female education; increase access to water and sanitation; and reduce poverty.

2.3 Program impact targets have been set for the end of the year 2001 to: (a) increase life expectancy from 58 to 60 years; (b) reduce the infant mortality rate from 66 to 50 deaths per 1000 live births; (c) reduce under five mortality from 132 to 100 per 1000 live births; (d) reduce maternal mortality from 214 to 100 per 100,000 live births; (e) reduce the annual population growth rate to 2.75 percent; (f) reduce the total fertility rate from 5.5 to 5.0 births; and (g) reduce the proportion of children with severe malnutrition from 12 to 8 percent. The POW also proposed provisional targets for health service delivery and intersectoral achievements in water and education that are needed to achieve these outcomes, while recognizing that the health management information system is being developed to better address the information needs of managers at each level of the health system, the public, and donors and technical agencies (see para. 3.19 for a description of sector indicators to be monitored on an annual basis by Government and the group of health partners).

2.4 Seven strategic objectives are elaborated in the POW as a means of achieving the sector goals and impacts. These are to: (a) improve access, quality and efficiency of primary health services; (b) strengthen and reorient secondary and tertiary service delivery to support primary health services; (c) develop and implement a program to train adequate numbers of new health teams to provide defined services; (d) improve capacity for policy development and analysis, resource allocation, performance monitoring and evaluation, and regulation of service delivery and health professionals; (e) strengthen national support systems for human resources, logistics and supplies, financial management and health information; (f) promote private sector involvement in the delivery of health services; and (g) foster intersectoral action.

2.5 The health sector goals are entwined with the main goals of other sectoral plans, notably the *National Plan of Action on Food and Nutrition* (NPAFN), and the *Revised National Population Policy Action Plan* (NPPAP). The main goal of the NPAFN is to improve the nutritional status of all Ghanaians. The NPPAP hopes to improve the quality of life through promotion of family planning, lowering levels of fertility, mortality and morbidity, reducing the country's rate of growth, ensuring a more balanced distribution of the population, protecting environmental resources, and confronting new threats to society such as HIV. Whereas the MTHS broadly outlines the relationships between sectors and agencies involved, the POW specifies what operational responsibilities would be financed within the boundaries of the sector program. The POW specifies that prevention and control of micronutrient deficiency and other health services elements of nutrition strategies are covered under the health sector program. Food security initiatives and other approaches to broader community development and nutrition are encouraged under the MTHS, but are not parts of the health sector POW. Similarly, reproductive health programs, including delivery of family planning services and communications, essential obstetric services, and management of sexually transmitted diseases are part of the priority health services interventions covered under the health sector POW.

B. THE REFORM PROCESS

2.6 Although many of the health reforms began implementation in the late 1980s, the current push for reform began with the preparation of the MTHS in 1993. The MTHS was developed after a National Consultative Meeting on Health Development in late 1993, which set an agenda for reviewing policies and strategies. This was followed by fourteen working groups to further develop feasible strategies. Both the Consultative Meeting and the working groups had broad representation of stakeholders in both public and private sectors in Ghana, as well as donors and international NGOs. A Steering Committee then consolidated the wide variety of inputs into the MTHS. Since then, efforts have been made to mainstream the follow-up efforts of the MTHS within the MOH under the Director of Medical Services with the Policy, Planning, Monitoring and Evaluation Division providing most of the coordination and leadership. For example, work on developing standard services, equipment lists, clinical guidelines, and reproductive policy has been led by the divisions of the MOH responsible for such work. There has been relatively little foreign technical assistance used, though donors have contributed to the development of the strategic framework, and particularly to support common implementation, monitoring and reporting arrangements. Outside the MOH, active partnership is being sought with missions, other NGOs and private practitioners (both modern and traditional), suppliers of goods and services, universities and research institutions. Although not formally part of the policy

formation process, there has also been increasing efforts to involve health consumers in health reform discussions. Studies such as "What Does the Public Want From Us: A Study of User Satisfaction with Services in Government Health Facilities in The Eastern Region, Ghana", and an ongoing national survey on consumer satisfaction with health services mark an emerging trend in the MOH towards trying to meet client expectations. Districts are now being supported to develop systematic ways to assess community preferences and needs.

2.7 Considerable work on health reforms has already occurred in Ghana. The MOH has been reorganized in stages since 1992, leading to the strengthening of DHMTs. To promote decentralization, DHMTs began having the authority to handle funds for non-wage recurrent expenditures since 1995. The experience has been quite positive, and has resulted in empowered DHMTs. Another element of the reorganization is the establishment of the Ghana Health Service (GHS), which has a legal basis in the 1996 Health Service and Health Management Bill (details of the reform are articulated in *Institutional Reform in The Health Sector*, Ministry of Health, 1996). The formation of the GHS will help to separate the provision of health services from the daily working of the Ministry of health, so that health services are managed in a more efficient and professional manner. The GHS and two Teaching Hospital Boards will operate in a highly decentralized manner, with clear lines of responsibility and control, and with greater accountability for performance rather than inputs. Budget and management centers (BMCs) are being established as decentralized functional units with responsibility for planning, managing, and implementing an agreed program of work within a given budget. The Ministry will concentrate on its functions of policy oversight, overall resource allocation and financing, regulation, and advocacy. Since 1995, the Ministry has elaborated 19 other substantial policies that are now being implemented. These include policies on transport use, essential drugs, medical equipment management, estates management, reproductive health, and teaching hospital autonomy. There is also considerable ongoing policy work on manpower policy, contracting services, and health insurance. Some of the most critical pending policy work concerns the role of user fees and health financing mechanisms to better protect interests of the poor and improve private sector participation. Much of this work is expected to be developed and tested during the program period.

2.8 Preparation of the sector program has required departure from traditional Bank preparation. For example, a team from the Ministry of Health came to Washington early in the preparation to meet with several donor agencies to plan the change processes. Joint Government and multi-donor preparation and appraisal missions have been done with different donors taking the lead among donors (e.g. DANIDA for financial management; DFID for public health and social assessments; World Bank for economic analysis and procurement; WHO and UNICEF on information systems). Joint aide memoires have been written with Government. Regular health partner meetings are held in Ghana with Government as chair, and involving NGOs and other agencies to plan and discuss the full range of sector investments and policies in a manner that was not previously done in Ghana. Several donor meetings have also been held in European donor headquarters. These processes have helped to build consensus and ensure consistency of approaches for technically difficult or controversial issues. The process and nature of the program has required more explicit linkages between MOH and other GOG initiatives, and are supportive of reforms of the National Institutional Renewal Program. For example, the financial management changes are also closely linked to the reforms undertaken by the Controller and

Accountant General. The procurement mission reinforced the plans to develop a national procurement code and to reform the Ghana Supply Commission. The result of these processes is a more coherent and jointly supportive approach on policy and operational matters, including unified planning, implementation, and monitoring procedures.

C. DETAILED PROGRAM DESCRIPTION

2.9 The MTHS serves as a policy framework that covers the entirety of health-related activities in Ghana. The program, as described in the POW, concentrates on those health activities funded through public resources, including Government, donor, and internally generated funds (IGF) collected from patients at public facilities. This includes activities to build linkages between Government and mission, private, and traditional health providers, and other sectors related to health. The program thus covers both ongoing service delivery and new initiatives. The details of the program are expected to change from year to year as reflected in annual work programs and budgets that are developed by each cost center, but would follow the policy framework of the MTHS and the overall guidance of the POW and the financing plan. Cost centers are functionally and administratively accountable units, and include: district health management teams, district hospitals, regional health management teams, regional training institutions, regional hospitals, the headquarters divisions in the MOH and the GHS, and the teaching and specialized hospitals. As described in the POW, the main implementation strategies of the program are to:

(a) Improve access, quality and efficiency of primary health services. This will involve: establishing standards of practice for a priority package of services (see Box 1); reorienting and retraining health workers to provide a basic package of services; rehabilitating clinics, health centers and district hospitals; providing essential drugs, equipment, and supplies according to standardized lists; strengthening district and subdistrict management and administration systems; and supporting advocacy and joint action on intersectoral issues. Households and communities will be expected to play a larger role in planning health services, and in monitoring and evaluating them. A central element of this strategy is to enable households and communities to identify and solve problems concerning their health. Greater responsibility and resources for service delivery will be decentralized to the districts, which will be better placed to respond to local needs, and to those of vulnerable groups such as the poor, the young, and the elderly. Communities will be actively involved in the monitoring and evaluation of health services.

(b) Strengthen and reorient secondary and tertiary service delivery to support primary health services. The Regional activities include the same elements as the district level services, though the level of public funding will be less, and the focus will be on appropriate services at the regional level. This involves a higher level of specialization and technology at the hospital level, and more supervisory and quality assurance activities by the management teams. As well, at the regional level, there will be more support for regional public health disease control activities, and for research. At the tertiary level, there will be support for

improving the physical rehabilitation and improved management of psychiatric and teaching hospitals, with a new emphasis on the introduction of quality assurance programs.

(c) Develop and implement a program to train adequate numbers of new health teams to provide defined services. This will involve: in-service training geared towards a reorientation of staff to the new services, expanding and restructuring pre-service training to provide the needed numbers of appropriate staff and improving the management of post-basic specialist training to focus on the needs of the health service and to favor local training. Support to local training institutions includes the rehabilitation of 23 schools, provision of supplies and teaching materials, support for revision of curricula, and re-training of tutors. In addition to all the training aspects, personnel management and planning will be strengthened to ensure a positive motivation for staff and effective deployment and use of the existing staff.

(d) Improve capacity for policy development and analysis, resource allocation, performance monitoring and evaluation and regulation of service delivery and health professionals. This will involve training of personnel, commissioning of studies and working groups, funds for dissemination of findings, and logistic support to continue work on developing and revising health policy and to monitor policy implementation. Performance monitoring, evaluation, and strengthening of statutory regulatory bodies will be pursued.

(e) Strengthen national support systems for human resources, logistics and supplies, financial management and health information. This strategy focuses on strengthening the systems to support implementation, particularly the further development of personnel management systems, drugs and supplies management, equipment management, and further work on strengthening financial management and information systems.

(f) Promote private sector involvement in the delivery of health services. Development and expansion of contractual arrangements with the private sector will be pursued, along with development of regulatory and licensing mechanisms for private practitioners, maternity homes, private nursing homes, private laboratories and mortuaries. Government will also promote partnership with traditional medical providers, supporting clinical trials, and supporting a professional association and regulatory body.

(g) Strengthen intersectoral collaboration. The MOH will take on an advocacy role and participate in planning and monitoring of activities important to health, that are not the main responsibility of the health sector, notably for improving nutritional status and population growth rates, increasing access to water and sanitation, ensuring higher female education, and undertaking measures to alleviate poverty. Partnerships will be formed with agencies from other sectors that contribute to better health. This will specifically involve linkages with

District Assembly structures and regional coordinating councils, as well as exchange with agencies such as the National Population Council (NPC), Ministries of Food and Agriculture, Employment and Social Welfare, Local Government, Education and Water and Sanitation agencies.

Box 1 - Priority Health Services Interventions

1. Immunization through EPI

2. Reproductive Health Program
   - Family Planning Services
   - Essential Obstetric Care

3. Prevention and Control of Infections with Epidemic Potential
   - Cholera
   - Cerebro-spinal meningitis
   - Yellow fever

4. Health Protection and Promotion
   - Bednet use
   - Guinea worm control
   - Nutrition and diet
   - Alcohol, drugs and tobacco
   - STDs/HIV
   - Hygiene and Sanitation

5. Prevention and Control of Micronutrient Deficiencies
   - Vitamin A
   - Iron
   - Iodine

6. Management of Selected Endemic Diseases
   - Malaria
   - Tuberculosis
   - Leprosy
   - Respiratory tract infections (ARI)
   - Sexually transmitted diseases
   - Diarrheal diseases
   - Parasitic diseases
   - Hypertension and diabetes

7. Emergency Care for Injuries and Trauma

D. PROGRAM COSTS AND FINANCING

2.10 The resource envelope for the sector program is estimated to be about US$824 million for the next five years. The estimate is based on the April 1997 projections of GDP growth, inflation, Government expenditure budget, expected external aid, and income from users (detailed assumptions and costing are presented in Annex 6). The expenditure envelope for the POW will be revised annually in April as macroeconomic projections and expenditures are known, using Annex 6 figures and assumptions as the 1997 baseline. Overall per capita health expenditure is expected to increase from about US$6 per capita in 1997 to nearly US$9 by 2001 (excluding commercial loans). Of the total resource envelope, the capital program costs US$298 million, while the remaining US$526 million covers recurrent costs for the program. Districts should receive increasing proportions of the total envelope and directly manage over 40 percent of the non-wage recurrent resources.

2.11 **Development of the Capital Program.** During the course of developing the sector-wide program, the Government, for the first time, has defined its overall capital program for the health sector. The MOH initially prepared a capital investment program totaling about US$230 million, which was agreed with donors during a joint Government and donor mission in June 1996. The plan was based on the MTHS, with primary health care provision given the highest priority. Yet other capital investments emerged parallel to the proposed program which were outside of the overall sector program. The additional investments included the construction of Regional hospitals financed by commercial loans and supplier's credits. The total capital investment increased to US$509 million. The new development distorted the overall balance of resource allocation among different levels and types of health care and undermines the sector objectives. The US$509 million capital program did not satisfy criteria of the economic analysis and joint appraisal by the Government and donors. An independent capital works appraisal was conducted to review the details of the capital program to recommend options. Discussion of the issues was taken up at the highest executive and technical levels in Ghana and the Bank, and became a significant part of the macro-economic dialogue between the Bank, the IMF, and the Government. Some of the proposed contracts were dropped and re-negotiated, while other less cost-effective items have been retained with other compensatory adjustments made to improve sustainability. New procedures for assessing proposed capital projects and procurement processes have been established to prevent a recurrence of similar problems (Annex 7). The capital program of US$298 million was finally agreed between the Government and donors. Under the agreed capital program, US$114 million will be spent on construction and renovation of health facilities at district and subdistrict levels (41 percent of the total capital investment).

2.12 **Recurrent Expenditures**. The total recurrent expenditure envelope was estimated based on the projections of wage increases and Government budgets for non-wage items plus the incremental recurrent cost for the proposed capital program. Under MOH accounting, recurrent expenditures include personnel items and usual operating expenses, as well as items such as drugs, materials, training, and technical assistance, which are often included in development budgets for donor agencies. The estimate has taken into account increases in recurrent costs resulting from an expected increase of activities in new and existing facilities, and reduction of recurrent costs from rationalization of service distribution such as the closure of some hospitals or beds in some facilities. Within the Government recurrent budget allocation, the MOH has

certain degree of freedom to change allocation between wage and non-wage. The intention is to maintain the wage bill at its current level in real terms, while increasing non-wage expenditures. The non-wage share of the total MOH recurrent budget will increase from 35 percent in 1997 to 57 percent in 2001 (or from 57 percent to 66 percent of the total program recurrent budget). Table 2.1 shows a summary of program costs.

Table 2.1 - Estimated 5-Year Program Expenditures According to Level of the Health System (US$ millions)

	Capital		Salary		Other Recurrent		Total	
	US$	%	US$	%	US$	%	US$	%
Headquarters	2.4	1	13.7	7	52.6	16	68.7	8
Tertiary Institutions	35.9	12	38.6	20	74.0	22	148.5	18
Regional Health Services	145.2	47	33.1	17	73.5	22	251.8	31
District Health Services	114.7	38	105.6	55	134.4	40	354.8	43
District Administration	3.7	1	20.0	10	32.8	10	56.5	7
District Hospitals	88.1	30	41.1	22	64.7	19	194.0	24
Health Centers	22.9	8	44.6	23	36.9	11	104.4	13
Total	298.2	100	191.1	100	334.5	100	823.9	100

2.13 **Annual Program Costs.** Detailed costs for the full five years covered by the MTHS have not been undertaken, since this is not consistent with the type of bottom-up planning and resource management promoted by the reforms, and would not provide reliable information. Detailed costing of the program will be done on an annual basis. BMCs will prepare their annual budget and program cost based on the principles of resource allocation (described in para 1.3), using detailed guidelines provided by the MOH (or the GHS in later years). Each BMC will submit its budget before September starting in 1997. The MOH will accumulate all the budget submissions for the Government and donor committees review and approval. Before **negotiations**, Government finalized the first year implementation plans and budgets covering all BMCs (para. 5.1(a)). Annex 8 contains the 1997 Summary Program of Work and budget allocation.

2.14 **Program Financing.** One of the main objectives for the health sector program for the medium term is to address the issue of under-financing in the health sector. Increased funding for health is being planned, along with improvements in its allocation. The sector program will be financed by the Government, external aid and private spending on health. Government will remain the dominant financier of the health sector. External aid will play a significant role in health financing in Ghana, but at a decreasing proportion of total expenditures. External support has been calculated at US$40 million per year during the next five years, so that the proportion of aid financing would decrease from 32 percent in 1997 to 22 percent by 2001 (excluding existing commercial loans in 1997 and 1998). Private users will continue to share the cost of health care through payment of fees for services and drugs. IGF is expected to rise modestly at a rate of 5 percent per year in real terms, covering about 6 percent of the total costs. Prior to **negotiations**, Government drafted revisions to the policy covering user charges and exemptions for

implementation during the Program period (para. 5.1(b)). Private resources will be increasingly used for financing tertiary care and public funds will be concentrated on financing the basic package of care that is delivered largely at the community, subdistrict, and district levels. Government funds will continue to support health services provided through mission hospitals. The main changes planned over the medium term are to develop a contracting system between Government and the missions and the for-profit providers to provide specific services.

2.15 **Government financing commitments.** Government financial contributions to the health sector are planned to increase over the program period, and not simply be replaced by donor funding. The Government will increase its spending on health from 5.0 percent of its overall budget in 1997 to 7.5 percent in 2001, contributing an estimated US$500 million over five years, 61 percent of the total costs for the program. The Ministry of Finance (MOF) would be expected to make allocations to the MOH on the basis of an agreed budget for the program, proposed by Government, and accepted by IDA and other donors prior to the start of each fiscal year. During **negotiations** with IDA, the Government provided assurances that it will: (a) take all actions to increase the overall level of expenditures for the health sector program in each year during implementation of the program to such target levels as agreed within the framework of the POW (para. 5.2(a)); (b) in achieving such expenditure increases, ensure that the financing of the health sector program in each year during the implementation of the program of its own resources increases to meet the levels of its target contributions formulated in the context of the financing plan of the POW (para. 5.2(b)); and (c) shall make available to the districts and subdistricts, a portion of the proceeds of the Credit for purposes of the respective Parts of the Program to be carried out by them, in increasing amounts under the framework of the Program, particularly for non-wage items (para. 5.2(c)). According to the framework of the POW (revised according to calculations made in April 1997), Government health expenditures shall not fall below 6.9 percent of GOG recurrent expenditures, net of debt servicing, in FY97, 8.6 percent in FY98, 9.5 percent in FY99, 10.0 percent in FY00, and 11.0 percent in FY01. As a result, overall public sector expenditure levels as a proportion of Gross Domestic Product should increase to nearly 2.0 percent by the end of 2001 (excluding commercial loans).

E. IDA'S PHASED FINANCING OF THE PROGRAM

2.16 To respond to the long-term nature of building capacity in the health sector, the continuing need for external financing, and the long time required for changes in the health status of a population, IDA is prepared to make a long-term commitment to supporting the Ghana health sector. This long-term commitment would comprise a series of Credits occurring under agreed policies and monitored performance of the sector, utilizing simplified Bank processing (see para. 2.18). Over the medium-term, the intention is to provide a baseline level of financing (US$7 million per year after US$5 million in the initial year), increasing the annual financing if capacity utilization and performance increase. Annual financing decisions are intended to reinforce the GOG budget negotiations process. Prior to the initiation of annual budget preparations (normally May to June), the assessment of the sector performance would be reviewed by GOG and the collaborating agencies to provide indicative ceilings and budget guidelines for the following year. After preparation of a consolidated budget and work program, an annual budget agreement with the consortium of donors and technical agencies will be made prior to submission of the MOH budget to the GOG (usually in September), by which time the

annual sector financial audit would have been reviewed. The assessment of sector performance would be updated prior to this meeting to further inform the financing decisions by IDA and other donors.

2.17 **Principles of IDA Financing.** All financing needs to occur within the boundaries of the POW. A baseline level of annual IDA funding would be made available for the POW under circumstances where Government meets its fiscal commitments to financing the POW (see para. 2.15), and the audits of the POW demonstrate adequate fiscal probity. The initial baseline level of IDA financing ($7 million in 1998) is based on an estimate of the minimum IDA funds that would be usefully spent in the POW under the current sector and macroeconomic conditions. Deviations from the baseline IDA financing level are expected to be made in subsequent years. The baseline may be adjusted by up to 50 percent at each annual budget agreement. The rationale for adjusting the annual IDA allocation are based on a number of verifiable factors, notably (a) Government fiscal effort; (b) fiscal probity of the POW; (c) capacity to implement the POW; (d) available financing; and (e) sector performance. The annual IDA amounts would be decreased below the baseline if **Government fiscal effort** and **fiscal probity** of the POW do not meet agreed expectations. Increases in the annual IDA allocation would be based on the latter three factors, and would be financed from the same Credit. The **capacity to implement the POW** would be measured by the ability to spend according to POW plans. Under circumstances where there is an increasing gap between budget and **available finances**, more IDA funds would be used if there were not sufficient grant funds, with IDA thus playing the role of donor of last resort. Strong showing on the agreed **sector performance** indicators would also provide a basis for increasing IDA funds. Reports on the sector indicators would be provided semi-annually: before indicative budget ceilings are made for the planning guidelines (April); and prior to submission of the sector budget (September). The IDA team would assess the quality of the reporting on performance indicators through supervision missions in collaboration with other agencies. Initially, the performance criteria that would influence the additional annual IDA commitments will be those under direct control of the MOH, which are less dependent on exogenous influences. In April 1998, the assessment of indicators would include: (a) an accurate completion of reporting on the 20 sector indicators; and (b) development of meaningful contracts to be used for mission hospitals, NGOs, and private sector providers (indicator 4). As a minimum, such contracts would require contractors to provide specific services, report to the same standard of financial and health management information as public sector providers, and include incentives provided for good performance. In later years of the POW, once we gain an empirical and quantitative understanding of the relationship between financing and service outputs and health outcomes, and a more functional and sophisticated information system is in operation, financing will be explicitly linked to these type of performance indicators. Eventually, this may include such factors as those directly resulting in increased costs, such as increased utilization, vaccine coverage, the amount of poverty-related fee exemptions, quality improvements in service delivery, or those factors demonstrating improved efficiency, such as cost per in-patient day (possibly adjusting for case-mix). Such changes would need to be mutually agreeable to Government and the consortium of donors.

2.18 **Bank processing.** The annual sector financing commitment by IDA would be approved by the Bank's Africa Region Vice President, and based on recommendations of the Bank team resulting from the discussions with Government and the collaborating agencies. Each of the

factors influencing the annual IDA allocation would be regularly reviewed by Government and the collaborating agencies. IDA supervision reports will clearly outline the assessment of sector performance and the basis for financing decisions. The treatment of follow-up IDA Credits would be simplified. Follow-up credits would be based on reports to the Board of Directors describing the results of the program in accordance with agreed sectoral performance indicators (see para 3.20), lessons learned, and how lessons are to be applied. Any changes in sectoral policy, sector objectives, strategies and performance indicators relevant for the follow-up Credits would be presented to the Board when follow-up Credits are requested. The intention is to make this request to the Board after 75 percent of the initial Credit has disbursed, which may occur in the fourth year of the POW with good performance; or when justified by significant changes in sectoral policies, which might be expected at the transition from the first to second Five Year POW. In addition to simplifying processing for the Bank and shifting the balance of effort from preparation of new projects and toward implementation, this approach will provide the GOG with stability for planning purposes, and appropriate incentives for increasing capacity. It also provides maximum flexibility in IDA's support for Government, and does not tie up IDA funds unnecessarily.

F. ECONOMIC ANALYSIS

2.19 The economic analysis was carried out jointly with Government and other donors, and had an important role in the preparation of the program. The analysis was conducted iteratively with various proposals on designs and resource allocations. Some of the key elements of the economic appraisal are incorporated into the ongoing selection and assessment of all new capital projects under the POW (Annex 7). During the appraisal of the POW, the economic analysis indicated that the initial design of the capital program was not consistent with the sector priorities and would not be sustainable given the available resources and implementation constraints. Subsequent assessments and redesigns contributed to negotiations between various parties within Government and with donors that led to an agreed program. The final appraisal of the program indicated that the POW is affordable, cost-effective, and consistent with the stated sector objectives and priorities for the medium term. The analysis comprised five aspects of the program: (a) macroeconomic linkages; (b) affordability; (c) alternatives of resource allocation within the health sector; (d) cost-effectiveness of the interventions and (e) demand for health services (see Annex 9 for further details).

(a) **Macroeconomic linkages.** The overarching objective of Ghana's development agenda is to improve human welfare and reduce poverty, thus giving a high profile to the health sector in social and economic development. The current macroeconomic problems and solutions are intimately linked to the health sector. Despite the last four years of fiscal imbalance and inflation, it has still been important to maintain structural reform, particularly to increase non-wage social expenditures. The POW provides a financing framework that is affordable given the current macroeconomic conditions, gradually returning GOG health spending to levels of 1991. IDA is also able to change its financing according to GOG fiscal effort. Although overall GOG health expenditures have been constrained, with the proposed development of a Medium-Term Expenditure Program, there should be a more rational framework to analyze alternatives between health and

other sectors. The POW nonetheless addresses several key macroeconomic issues. The problem with high GOG debt to service interest payments has been compounded by the use of non-concessional external loans, notably to finance roads, urban projects, colleges and hospitals. The POW proposes a clear way to prevent such borrowing in the health sector. The POW is also a very practical and specific expression of how to reform the public service to achieve greater efficiency. Controlling the wage bill while recruiting and retaining skilled staff is one of the main challenges facing the public sector, and is at the core of the human resource development plans for the GHS. Finally, the MOH is demonstrating how to increase efficiency of non-wage public expenditure by developing accountability and expenditure controls, which is being further strengthened under the POW.

(b) **Affordability.** The analysis of affordability has been a central factor in determining whether the various proposals on the capital program were appropriate. Once all the proposed and current capital expenditures were fully identified (including non-concessional lending), and analysis of the recurrent cost consequences was undertaken, the recurrent cost implications were assessed against estimates of incremental resources available for recurrent expenditures, according to level of services. After several iterations, the assessment of the final program found that sufficient incremental resources would be available to increase funding overall, and to priority areas (i.e. at the district level), while being able to finance the operation of the new capital projects (though significant challenges remain, particularly in managing human resources). The sensitivity analysis of the POW (using different macroeconomic and sector parameters) indicated that the modest increases in Government spending on health is important if the required resources for recurrent expenditures are to be found (a return to the 1991 proportion of GOG expenditures on health is proposed). Cost recovery from patients is already among the highest in Africa in proportional terms (10 percent of the MOH recurrent budget), so that it is not likely that substantial new resources will be captured until income levels rise substantially. Donor aid will still be needed over the long term to finance, and particularly to increase resources for non-wage recurrent and capital items.

(c) **Alternatives for resource allocation within the health sector.** Affordability has been one of the main factors in determining alternatives for different capital programs. Cost-effectiveness notions influenced the plans to reduce proportionally more from Tertiary and Regional Hospitals than from District and Subdistrict facilities. Information on access to services helped influence the determination of locations, though this remains an issue for subsequent years of the POW. The appraisal process resulted in a much smaller capital program, amendments in current plans to save money, compensatory closure or down-sizing of existing facilities in areas near new capital projects, and agreed processes to assess new capital projects and procure competitively. The immediate savings was about US$125 million for the program, including US$40 million in Regional Hospital contracts.

(d) **Cost-effectiveness.** A list of priority health service interventions was strongly influenced by strategic priorities and cost-effectiveness information. Using the analysis of disease burden and cost-effectiveness, a basic package of health interventions was defined. This package was analyzed according to level of delivery, and helped shape the policies of seeking universal coverage of the basic package of health services, and to do so, resource allocation would need to favor resources at the district level, and for non-wage expenditures. The interventions chosen as cost-effective are consistent with the cost-effective interventions identified in WDR 93 and *Better Health in Africa.*

(e) **Demand for services.** The issues of access to and utilization of services, particularly by the poor, was central to this element of the analysis. As described above, the poorest quintile of Ghanaians received only 11 percent of public spending on health, compared to 34 percent for the top quintile. Survey results indicate that distance and costs are major factors influencing people's decisions to seek care. Ghanaians are more likely to seek health care when a medical doctor or hospital is nearby. Yet only 3 percent of the population has a medical doctor in their community, and more than 60 percent has to travel for more than one hour to reach a hospital or pharmacy. These problems are particularly acute in the northern regions of the country. Ghanaians do spend a sizable amount of their income on health, and though the poor spend much less on health services, they spend a higher proportion of their income. This analysis provides justification for capital investment to improve physical access to health facilities, particularly in deprived areas. It also points to the need to reassess the cost-recovery and the exemption system, and to seek alternative ways to pool financial risk from health care costs, particularly for the poor. These are issues being taken up in the POW.

2.20 **Sustainability.** One of the reasons for the selection of the sector program versus a project approach is to improve sustainability. Sustainability is considered in several dimensions. The economic appraisal largely considered the financial sustainability of the program. The economic appraisal provided the justification for increasing resources to health, shifting resources from tertiary care to primary care and to non-wage expenditures, and for continued donor funding, particularly as the program provides more support at the district level. It also highlighted the need to better guide private health provision and financing in the sector toward POW objectives. Institutional sustainability will be strengthened by focusing on improved management practices and restructuring to support regular institutions and processes rather than separate project structures and donor-based processes. The participative approach to develop and operationalize the MTHS and the efforts to improve equity, quality of services, and accountability to the public, will help ensure the social and political sustainability of the program.

3. PROGRAM IMPLEMENTATION

A. THE GHANA HEALTH SERVICE

3.1 The long term vision is to use common implementation arrangements for the public sector, regardless of the source of the resource. This will entail considerable development and strengthening of the existing systems, rather than building separate systems for each project. The program will be implemented through the regular channels of the Government. No new project implementation units will be established. The MOH will remain responsible for policy, monitoring, coordination of donors and inter-sectoral agencies, and public financing for health services. In the medium term, the program will be managed by tightly coordinated parallel and common implementation arrangements for those with existing projects, but moving toward single Government systems over time. A memorandum of understanding between Government and donors outlines the operational implications of common implementation.

3.2 The Ghana Health Service and two Teaching Hospital Boards are being established to manage the delivery of a decentralized public service more efficiently. They will prepare and implement health budgets and monitor the performance of sector delivery with responsibility and authority delegated to various BMCs. District health management teams (DHMTs), located in each of the 110 districts, are responsible for organizing the local provision of health services. They prepare annual plans and budgets for their districts, and are provided with finances for non-salary recurrent expenditures. The ten Regional Health Teams play an intermediary role between the DHMTs and the central GHS, providing supervision and logistic support to districts, and organizing referral hospital care. All planning and budgeting are now being done on the same schedule, and not separately for each donor funded activity. Government and donors will jointly review the detailed action and financing plans at a national level on an annual basis. Methods for developing common arrangements for procurement, management of logistics and technical assistance, monitoring and reporting are also being developed. Prior to **negotiations**, Government prepared a draft plan to manage the transition from the MOH to the GHS satisfactory to Government and the collaborating agencies (para. 5.1(c))

B. FLOW OF FUNDS AND DISBURSEMENT

3.3 The Ministry has gone a long way to establish financial management systems that will ensure that funds from various sources will be available to the BMCs, and be adequately accounted for. The main sources of funding are from the GOG Consolidated Fund, donor grants and loans, internally generated funds (IGF) from patient fees, and a few commercial loans. The majority of new donor funds, including the new IDA funds, will be managed in a similar manner. Whereas earmarked project funding from donors will continue over the medium term, the preferred donor financing system is an untied contribution to the program, called "Program Funds" which are allocated on an annual basis along with an annual plan and budget (with multi-year items rolling over from year to year). The Program Funds consist of donor funds which are earmarked annually, and those donor funds provided into a common, central Health Account, which are then distributed to all eligible BMCs (see below for eligibility criteria). The Health Account funds will be put into a bank account under the direct control of MOH headquarters and

the Controller and Accountant General (CAG). External funds destined for the Health Account will be transmitted to the Health Account according to procedures of each donor agency.

3.4 IDA transfers to the Health Account will be made on the basis of reimbursement of expenditures already incurred out of the GOG funds for the health sector. IDA disbursement will be based in part on the submission of POW financial management reports to IDA by the Borrower. This will include summary financial statements in a form acceptable to IDA and other donors, which the MOH headquarters will distribute on a quarterly basis to donors. Such documents would provide the supporting documentation for the usual IDA withdrawal applications, which are expected on a semi-annual basis. Also pre-requisite for IDA disbursements would be the submission by the Borrower of the annual MOH budget that is submitted to parliament. Other specific reports linking performance to disbursement will be submitted to IDA and other donors at semi-annual intervals to support the IDA disbursements. The contents of these reports were agreed during negotiations, and would link aggregate BMC budgets to activities and a selection of sector performance indicators (see Annex 10). Once IDA and other donor funds reach the Health Account, there will be no further identification of the funds by donor origins, as these are spent at various BMCs within the MOH (at headquarters, regional and district levels). Funds from the Health Account will be available for all non-wage categories of expenditures and include: civil works, goods and services, drugs, vehicles, operating costs, training, and consultants, as long as these conform to the approved annual budget and work program and adhere to agreed procurement guidelines. Health Account funds will not finance taxes or land acquisition. MOH will establish maximum spending limits at various levels and for various institutions responsible for execution of the annual program. At **effectiveness**, GOG may retroactively finance POW expenditures by the MOH that occurred after January 1, 1997, in an amount up to US$3.5 million. An initial allocation of US$5.0 million from the IDA Credit is proposed for use in 1997, and another US$7 million in 1998. The following table gives the category and amounts to be financed out of the IDA Credit.

Table 3.1: Allocation and Disbursement of the IDA Credit

Category of expenditures	IDA allocation (US$ Million)	Percent to be disbursed by IDA
1. Civil works, drugs, furniture, equipment, vehicles, technical assistance, studies, training, materials, operating costs [1]	5.0 in FY 1997; and thereafter determined each FY by IDA	50% of GOG non-salary, non-land acquisition expenditures in 1997
2. Unallocated	30.0	
Total Credit	35.0	

[1] These include incremental administrative and running costs of districts, per diems, travel costs, general office supplies, fuel, vehicle and equipment maintenance costs, and other administrative expenses

3.5 **Health Account Funds and Readiness Criteria.** Expenditures within the health sector are incurred at each of the BMCs, which may eventually include over 1,000 operating units at the district level (health centers and hospitals), ten Regional hospitals, ten Regional and 110 District health administrations, five tertiary institutions and eight headquarters Divisions. Funds from the

Health Account maintained at headquarters will be distributed to BMCs at all levels in accordance with approved annual plans and budgets. At each BMC, the funds will be maintained in the same bank account as IGF moneys. Prior to disbursement of Health Account funds to a BMC, the Financial Controller of MOH, in consultation with staff of the Controller and Accountant General (CAG) and based on advice of external financial audit firms (five firms have been used in 1997), will certify that the BMC concerned has taken the necessary measures to strengthen its internal financial management and that it is in compliance with minimum Readiness Criteria. Over 60 of 214 BMCs are expected to be certified to manage Health Account funds by the end of 1997, including all headquarters Divisions, Regional Administrations, teaching hospitals, and a few district health administrations. Where BMCs have not been certified, it is expected that a certified BMC at the next supervisory level would manage the accounts of funds from the Health Account for uncertified BMCs. This is done in order to ensure that Health Account funds will be available to more peripheral units, where capacity to manage funds may be weak, but the need to access funds is greater. The minimum Readiness Criteria are:

(a) The BMC has prepared and submitted its annual budget for IGF and Health Account funds.

(b) The annual budget is accompanied by a statement of quantified targets and objectives for the total resources made available (i.e. GOG, IGF and Health Account).

(c) The BMC has instituted satisfactory procedures for collecting and regular banking of IGF.

(d) There is an adequate acceptable procedure for authorization of payments out of the IGF/Health Account funds.

(e) The Cash and Bank books are maintained up to date and the bank balance is reconciled regularly and promptly at the end of each month.

(f) The BMC concerned has in place adequate staff and procedures to prepare (i) monthly summary reports of revenues and expenditures for IGF and Health Account funds to the next higher level within the structure for consolidation and submission to MOH headquarters and (ii) an annual summary statement of such revenues and expenditures.

C. PROCUREMENT

3.6 As is the case for other sector-wide operations, the exact mix of civil works, goods and services to be financed by the Credit will reflect the annual plans of the POW. Procurement procedures are being developed in the context of a national procurement code, which is currently under consideration. Following a joint GOG-multi-donor review of the current procurement procedures, GOG and MOH are in the process of implementing actions necessary to put in place procurement procedures acceptable to IDA and other donors (the specific measures to be implemented over the next three years are detailed in the Joint Ministry of Health-Donors

Procurement Mission: Mission Report, October 30, 1996). The memorandum of understanding outlines the common procurement procedures to be followed under the Health Account. Some donors and financiers would continue financing parts of the program through their own procedures when not financed through the Health Account, though all items and financing would need to be included within the sector expenditure program agreed with the Government and the collaborating agencies. These practices would be phased out over time. Beginning in 1997, all procurement from the Health Account will be done under MOH procedures acceptable to IDA and other donors.

3.7 **Procurement Thresholds.** Each level of BMC will have thresholds for each method of procurement they are allowed to use. District level BMCs will procure through shopping, whereas Regional level BMCs will use shopping and national competitive bidding (NCB), and the national level will use shopping, NCB and international competitive bidding (ICB) procedures. The proposed thresholds for each level of the system are outlined in Table 3.2, and would be expected to change as procurement systems are further developed and more experience is gained. Where contracts are expected to exceed the threshold for the district or regional levels, they will be procured at the next higher level of the system. Shopping procedures include comparison of at least three quotations from eligible bidders. NCB procedures include: (a) an explicit statement to bidders of the evaluation and award criteria; (b) local advertising with public bid opening; and (c) award to lowest evaluated bidder. Foreign bidders would not be precluded from participating in NCB. National bidding requires publication of invitations to tender in at least two local newspapers, and a bidding period of at least one month. For international competition, the invitations are also disseminated to local embassies (and frequently to international journals), and a bidding period of at least nine weeks is required.

Table 3.2: Maximum Contract Thresholds for Procurement at each Level of the Health System, According to Type of Procurement and Procurement Method

	Method of Procurement		
Level	**Civil Works**	**Goods**	**Consultant Selection** [1]
District	Price comparison for minor repairs ($6000) NCB (none allowed) ICB (none allowed)	Shopping ($6,000) NCB (none allowed) ICB (none allowed)	Quality- & Cost-Based; Based on Consultants' Qualification; Single Source (all $6,000)
Region	Price comparison for small repairs ($50,000) NCB ($1,000,000) ICB (none allowed)	Shopping ($50,000) NCB ($300,000) ICB (none allowed)	Quality- & Cost-Based; Based on Consultants' Qualification; Single Source (all $50,000)
National	Price comparison for small repairs ($50,000) NCB ($2,000,000) ICB (all > $2,000,000)	Shopping ($50,000) NCB ($300,000) ICB (all > $300,000)	Quality- & Cost-Based (no threshold); Based on Consultants' Qualification ($75,000); Single Source (case by case)

[1] As described in: "Guidelines: Selections and Employment of Consultants by World Bank Borrowers", January, 1997.

3.8 **Civil works**. The civil works included in the POW include planned construction of 126 health centers, rehabilitation of 250 health centers, rehabilitation of 28 district hospitals, construction of two district hospitals, and construction of three regional hospitals and rehabilitation of 7 more. A register for contractors for works and related services is being maintained to classify them according to their financial standing and value of contracts for works and services for which they are normally capable of carrying out satisfactorily. During **negotiations**, the GOG provided assurances that all capital projects would be subject to transparent and rigorous capital appraisal processes, with procurement through competitive means agreed with the collaborating agencies (para. 5.2(d)). Further details on the proposed processes are described in the MOH Capital Investment Program Appraisal Mission Report.

3.9 **Goods.** Goods financed under the program would include: essential drugs, medical equipment and materials, vehicles, and office equipment and furniture. Most pharmaceutical purchases with contract values over US$50,000 per item would be procured through ICB, with smaller contracts purchased through NCB or shopping. UNICEF may be used to procure vaccines, UNFPA to procure contraceptives, whereas UNICEF or WHO may be used to procure emergency drugs and supplies, using funds from the Health Account in addition to earmarked funds from their agencies.

3.10 **Consulting Services.** Consultants would be contracted with practices consistent with IDA's *Guidelines: Selection and Employment of Consultants by World Bank Borrowers* (January, 1997). The consultancy services required would be mostly for architectural and engineering services, specialized management and health systems services, information and evaluation, research, and training activities. The services of locally recruited consultants and training institutions will be needed to carry out activities such as: (a) procurement; (b) quantity surveying; (c) annual program audits; (d) training of staff; and (e) preparation of training materials. Training institutions would be selected on the basis of a short-list and submitted proposals. Where specific area of expertise is required intermittently over an extended period, contracts with international universities or training institutions will be considered.

3.11 **Procurement management**. Prior to **Credit effectiveness**, Government will establish the procurement unit within the MOH to manage procurement under the POW responsible for ensuring that standard bidding documents and transparent, competitive procurement procedures are followed (para. 5.3(a)). The procurement unit is based in the Stores, Supplies, and Drug Management (SSDM) Division of the MOH (and eventually in the analogous unit in the GHS). The unit will need adequate staff to be responsible for handling matters related to national level procurement for the MOH/GHS, including the preparation, implementation and monitoring of work plans for the smooth execution of procurement of all works, goods, and services, including the options appraisal of capital projects, preparation of bidding documents, launching of tenders, evaluation, facilitating procurement logistics, monitoring contracts, and reporting the results to the Government and to an agreed third party procurement for review. In addition, adequate records on procurement progress, including staff reports on site visits, the timing of works and goods procurement, and compliance with agreed methods of procurement will be maintained by the SSDM. The construction and rehabilitation works will be supervised by project engineers and final payment will be made to contractors only when the work is completed according to

specifications. Except when using a United Nations agency, central procurement of goods will be managed through the Ghana Supply Commission (GSC). However, the MOH procurement unit will supply detailed specifications, and monitor the evaluation and delivery processes more directly than in the past. Drugs will be purchased through a reorganized Ghana National Drugs Program, which will be set up as an autonomous unit responsible to the MOH (and eventually to the GHS), but using the services of the GSC as required. Major institutional reform of the Ghana National Drugs Program, including the current Central and Regional Medical Stores is planned for the early years of the health reforms. The central unit would also provide training and monitor procurement occurring at peripheral levels. Regional and District level procurement would be managed through each of the Regional and District Health Management Teams. A consultancy has been initiated to assist with the preparation of guidelines and development of procurement systems for the central unit, the interface with other units assigned procurement responsibilities, and including training staff and undertaking procurement to enable the procurement unit to be fully functional after the initial 12-18 months of the consultancy.

3.12 **Procurement Review.** To focus efforts on improving sustainable procurement systems within Ghana to cover multiple sources of funds, independent third party review would be the major source of procurement review, rather than review by the Bank. *A posteriori* third party review would become the main method of review. Prior review by IDA would be limited initially to procurement of all ICB packages of works (contracts exceeding US$2 million) and goods (contracts exceeding US$300,000), if the financing involves funds from IDA, either in whole or in part. Procurement for each consultant contract valued at US$100,000 or more for firms and US$50,000 or more for individuals would be subject to IDA prior review when financed in whole or in part from IDA funds. IDA prior review would also apply to (a) single-source selection of consulting firms; (b) assignments of a critical nature, as reasonably determined by the Association and the consortium of donors; (c) amendments to contracts for the employment of consulting firms raising the contracts value to US$100,000 equivalent or above; or (d) amendments to contracts for the employment of individual consultants raising the contract value to US$50,000 equivalent or above. All bidding documents will be prepared using Standard Bidding Documents agreed for use under the program. During **negotiations**, assurances were given by Government that it will select a third-party procurement reviewer satisfactory to IDA and the collaborating agencies by the second year of the POW (para. 5.2(e)). In the initial years, compliance to procurement procedures would also be included as part of the terms of reference for the external audit.

D. ACCOUNTING PROCEDURES AND FINANCIAL REPORTING

3.13 Accounting and reporting of expenditures for GOG funds takes place within the MOH structure in accordance with the well established Government procedures which involves allocation and distribution of annual budgets, expenditures and spending authorities to various spending authorities, internal controls and procedures commitments of funds, payments (by Treasury) and reporting. The present accounting and reporting procedures will be continued for GOG funds under the program. The GOG procedures will be changing in the next few years as the Ghana Public Sector Financial Management Reform Program (PUFMARP) is being implemented. It is the intention of the health program that the management and accounting of funds in the MOH and GHS will continue to support the changes introduced under PUFMARP.

Two areas currently receiving attention relate to: (a) reconciliation of expenditure reports generated separately by MOF and MOH and (b) discrepancies between the actual number of staff working in various units of MOH and those as reported in the payroll maintained centrally in Accra. Corrective measures in this regard constitute part of the Readiness Criteria described below.

3.14 BMCs that collect revenues (i.e. IGF from consultation fees, hospital charges and drug sales) generally maintain a local bank account and run a parallel accounting system for expenditures and revenues of IGF. Budgeting for these funds, accounting and internal controls, banking procedures, internal reporting and overall quality of financial management of these funds vary significantly between districts and operating units. The collecting units seem to have complete discretion over IGF, procedures have not been standardized and monitoring by higher level structures within MOH needs strengthening. Hence, corrective measures in this regard are also included as part of Readiness Criteria to receive and manage funds from the Health Account.

3.15 **Financial Monitoring.** The Financial Controller at headquarters will be ultimately responsible for monitoring and ensuring that eligible BMCs remain within compliance of the Readiness Criteria. Monitoring tasks may, however, be delegated to financial staff at regional and district levels as appropriate. BMCs which fall in arrears in regular reporting for more than two months will be suspended for further access to Health Account funds until the situation is corrected.

E. AUDITING

3.16 In line with current Government procedures, the MOH (and its Regional and District level structures) is audited annually by Auditor General. As operating units (BMCs) become increasingly decentralized, autonomous centers, there is a need to expand audit arrangements, progressively, to bring annual audits closer to those for service enterprises. In principle, all funds of the POW managed by Government will be subject to independent, external audit. Arrangements for audits of the POW are as follows:

(a) A private qualified firm of auditors (under sub-contract with the Auditor General), will be engaged to audit the Health Account under the control of MOH headquarters. The main objective of this audit will be to obtain an independent opinion on the operation and transactions of this account and in particular, if the payments out of this account have been utilized for the Health Sector Program.

(b) Auditors will also audit annually, the BMCs utilizing Health Account and IGF funds. The audits will essentially be to provide an opinion on the annual financial statements prepared by the BMCs and to review internal controls in the units audited.

(c) Given the large number of BMCs involved, to keep the number of annual audits (and costs thereof) within reasonable limits, the program of audits will be designed to have only the larger BMCs audited each year. The remaining BMCs will be audited at least once over two or three years depending upon size of their

operations. The number of annual audits undertaken would also cover at least 50 percent of the Health Account funds utilized in that year.

3.17 The appointment of an independent auditor for the POW funds, on a multi-year contract under terms and conditions acceptable to IDA and the collaborating agencies, is a condition of **effectiveness** (para. 5.3(b)).

F. MONITORING, EVALUATION, AND SUPERVISION

3.18 Joint Government and donor monitoring of the program will occur on a regular schedule according to Government's requirements. Monitoring of the program will occur in three dimensions: (a) the performance of individual BMCs; (b) national assessments of health status, health determinants, health service outputs, and other sectoral objectives; and (c) achievement in policy, institutional and systems development. Although Government has articulated goals in terms of health outcomes, the information system is still being developed to cover all three dimensions. Government and donors have agreed on an initial set of 20 annual sector indicators to monitor progress over the first year (Annex 10), largely covering the latter two dimensions. These sector indicators cover fiscal effort of Government and donors; implementation of key policy initiatives, such as contracting of NGOs and private sector providers and initiation of quality assurance procedures at facilities; the degree of implementation of work programs; and performance of BMCs and the whole health system, measuring efficiency factors (outputs relative to inputs, such as cost per patient-day), equity considerations, consumer satisfaction, and health impact. Reports on these indicators would be provided semi-annually to the collaborating agencies to be an input for the supervision visits when planning priorities and budgets are determined. These reports would be used to help determine the annual IDA allocations, and be one of the documents used to justify the release of IDA disbursements. Other regular reports include: (a) in April, the report of actual expenditures against budget for the previous fiscal year; (b) in July, the receipt of the annual audit of POW finances; and (c) in October, the sector budget submitted by MOH to MOF for the following fiscal year. Each year, donors and technical agencies will take leadership in joint supervision in an area of their comparative advantage. IDA is likely to lead in areas of public expenditure and procurement issues. The planning, monitoring and evaluation schedule is shown in Annex 11.

3.19 At **negotiations**, assurances were made that Government will: (a) submit an annual progress report and a draft annual consolidated implementation plan and budget at least three months prior to the beginning of each Fiscal Year, prior to an annual Government-led meeting with donors (before September) (para. 5.2(f)). Beginning in 1997, progress on the previous year's health plan would be reviewed and specific financing commitments made for the next year in advance of the submission of the Government's annual budget. At **negotiations**, assurances were given by Government that progress reports and financial statements covering achievement of time-bound indicators and use of POW funds would be given before April each year in the context of a Government-led joint review of the Program (para. 5.2(g)). In addition to the annual monitoring and planning cycle, assurances were given during **negotiations** that Government will lead a major evaluation of the POW before the end of the fifth year of the program (para. 5(h)). This evaluation should include an analysis of how much the poor (and other vulnerable groups) are benefiting from public expenditures on health.

4. BENEFITS AND RISKS

A. BENEFITS

4.1 The long range benefits are improved levels of health and nutrition, particularly for the under-served populations. A long-term commitment by the Bank to the Ghana health sector benefits both Ghana and the Bank. Such a relationship adds stability and flexibility to sector planning and financing, and results in more effective assistance by the Bank and other donors. In the medium term, implementation of the POW strengthens the health sector and makes it more responsive to the public. Changing the role of the Ministry will better enable it to focus on policy and regulation functions, while freeing up service delivery functions to be managed in a professional and patient-oriented rather than bureaucratic manner. This should create opportunities for mission and private sector to contribute to national health goals in a more constructive manner. More funds are being made available to poorer regions and to peripheral managers, particularly to finance needed non-wage recurrent items for primary level services. The sector approach fosters local ownership of health programs, and builds institutional capacity. The plans to decentralize responsibility and authority should improve the ability of local managers to manage, while intending to empower households and communities in health decision-making. The results of these reforms should be improved quality and access to health services (e.g. utilization, unit cost, and quality of care indicators) and strengthened institutions (e.g. budget and plan execution indicators). In particular, the poor should benefit disproportionately from public financing of health, and such allocations and subsidies will be monitored.

4.2 A major benefit of the sector approach is already seen in improvements in the processes and results of policy dialogue and health sector planning. For the first time, health policies are being explicitly linked to resource allocation in a comprehensive manner, covering all Government and donor financing, and, to the extent possible, private financing. Projects that were previously disconnected to policy goals have been identified, objectively appraised, and openly debated. Procedures for selecting new projects and means of procurement were previously not subject to close scrutiny, but have now been rationalized, and have already resulted in savings on investment costs and subsequent running costs. For example, a hospital construction contract that was going to be let for nearly US$40 million is being re-tendered with an expected price of around US$20 million. Other bed closures and conversions have been identified to reduce operating costs of other investments. The sector approach has brought a more rational policy discussion, and led a way to improving transparency and accountability, with important cost savings and improvements in equity and performance. Government and donors now have a coherent policy framework and processes through which issues can be debated and strategies planned jointly.

B. RISKS

4.3 One of the main risks concerns the decentralization of budgeting and financial management, because of its political sensitivities and the limited experience of BMCs in managing funds. This risk is being mitigated by certifying a limited number of BMCs to manage funds based on their capacity, and auditing them on an ongoing basis. Rather than putting all

donor funds into the Health Account, only a portion of all grants and loans are being put into the Health Account, while some funds from other donors are still earmarked for capacity development and ongoing projects. To expand the number of BMCs able to manage funds, financial management of the health sector is being fit in with the PUFMARP plans to build up financial management capacity throughout the public sector, with extensive staff training and clear financial management guidelines, improved accounting tools, supervision, and internal and external auditing. The first two years' experience with increasing financial authority to DHMTs has been very positive, both in terms of probity and improving the performance of DHMTs.

4.4 The possibility of not meeting the challenges of implementing an ambitious program is another risk, with a particular concern about how to utilize common implementation procedures with donors, including for procurement. To deal with these risks, a regular Government-donor forum has been established to monitor the agreed operational framework, with plans focusing on system development (e.g. procurement and information management), and increasing local responsibilities as capacity increases. The memorandum of understanding between Government and donors outlines many of the operational implications. In addition, an informal code of conduct has been drafted to provide guidance in other areas of interactions between government and its partners. An emphasis on training, supervision, using local capacity, and incrementally developing systems should help the technical and managerial sustainability of the program. The particular concern about capacity to undertake procurement is being managed by phasing in additional procurement responsibility as the procurement unit is strengthened, and by IDA maintaining prior review on major ICB purchases. There is still a risk that interest groups may not give full support to the program, particularly as power balances shift and new accountabilities are introduced. This is being mitigated by involving many stakeholders in the preparation, implementation, and monitoring of the program. The program has become the definition of what the Government regulates, finances, delivers or promotes in the health sector, so that the risk of marginalizing a program within the sector has been addressed. Rather than financing a blueprint approach, the IDA Credit and other donor support is very flexible to be able to respond to changing conditions and reform initiatives over the medium term. Efforts are also being made to make the reform as broad-based and populist as possible. As health services discernibly improve, it will be more difficult to undermine the program.

4.5 The risk that Government would not maintain its financing commitments to the POW should macroeconomic management deteriorate is also possible. In such circumstances, IDA would respond, in part, through enhanced policy dialogue. Sector financing targets would be incorporated into CAS discussions, the Policy Framework Paper, and IDA adjustment lending. Within the sector, IDA would be able to vary its annual commitments to the POW according to GOG fiscal effort, and be able to coordinate sector financing with other donors. A related exogenous risk to the program has been the introduction of questionable capital expenditures. Based on experience of 1996, there was a real risk that agreement on coordinating Government and donor expenditures might not be readily reached each year, or that Government would not stick to the agreed expenditure program. Yet this risk has already been managed during the preparation period. The open Government-donor forum helped to identify these problems (which would not have been picked up without a sector wide approach), initiate objective analysis for pursuing options, and led to revisions of the capital program and new procedures for capital program appraisals and procurement to prevent such occurrences in the future. A regular

Government-health partners forum has been established to monitor the agreed operational framework to further minimize the risk. The design of the IDA Credit with a baseline level of funding plus capacity based increments is another important way to manage such risks, and has received widespread support from other donors. The baseline level of funding provides assurance needed for planning purposes that a given level of IDA resources would be available if Government simply meets its financing targets. In a worse case scenario, if Government spending deviates from the agreed program, IDA may respond (short of suspension or cancellation) by decreasing the amount to be allocated that year or earmarking funds for particular purposes. This method of managing risk is feasible only if there are also means of bringing in additional resources for good sector performance, as proposed, and if the collaborating agencies can continue to act cohesively. The incentive for good performance helps reduce the risk of the program going off track by strengthening the budget negotiations and monitoring processes.

5. AGREEMENTS TO BE REACHED AND RECOMMENDATION

5.1 Prior to **negotiations** with IDA, the Government:

(a) finalized the first year implementation plans and budgets covering all BMCs (para. 2.13);

(b) drafted revisions to the policy covering user charges and exemptions for implementation during the Program period (para. 2.14); and

(c) prepared a draft plan to manage the transition from the MOH to the GHS satisfactory to Government and the collaborating agencies (para. 3.2).

5.2 During **negotiations** with IDA, the Government provided assurances that it will:

(a) take all actions to increase the overall level of expenditures for the health sector POW in each year during implementation of the program to such target levels as agreed within the POW (para 2.15);

(b) ensure that the financing of the POW in each year during the implementation of the program of its own resources increases to meet the levels of its target contributions formulated in the context of the financing plan of the POW (para 2.15);

(c) make available to the districts and subdistricts, program funding for purposes of the respective parts of the POW to be carried out by them, in amounts consistent with the POW, particularly to increase non-wage recurrent expenditures (para 2.15);

(d) ensure that all capital projects would be subject to an assessment of strategic context and options appraisal processes as agreed with the collaborating agencies (para. 3.8);

(e) select a third-party procurement reviewer satisfactory to IDA and the collaborating agencies by the second year of the POW (para. 3.12);

(f) submit a draft annual consolidated implementation plan and budget at least three months prior to the beginning of each Fiscal Year, prior to an annual Government-led meeting with donors (before September), and beginning in 1997, where progress on the previous year's health plan would be reviewed and specific financing commitments made for the next year in advance of the submission of the Government's annual budget (para. 3.19);

(g) submit progress reports and financial statements covering achievement of time-bound indicators and use of POW funds before April each year in the context of a Government-led joint review of the Program (para. 3.19); and

(h) lead a major evaluation of the POW before the end of the fifth year of the program (para. 3.19).

5.3 Prior to **effectiveness** of IDA's Credit for the Program, Government will:

(a) establish the procurement unit within the MOH to manage procurement under the POW responsible for ensuring that standard bidding documents and transparent, competitive procurement procedures are followed (para. 3.11); and

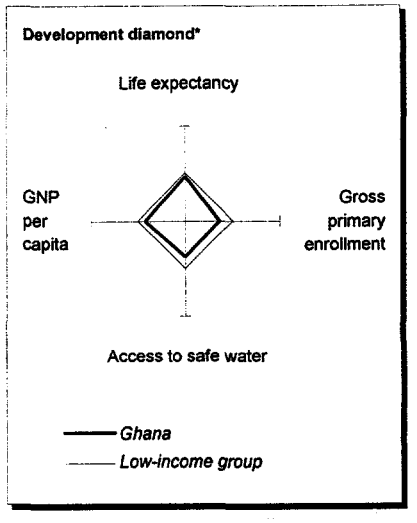
(b) through the Auditor General, appoint an independent auditor for POW funds on a multi-year contract under terms and conditions acceptable to IDA and the collaborating agencies (para. 3.17).

5.4 Upon disbursement of 75 percent of the proposed Credit, a request will be made for approval of the Executive Directors for a follow-up Credit estimated at US$35 million, the next of a planned series of Credits to continue funding subsequent phases of the Program of Work (POW). Requests for follow-up Credits will be based on the evaluation of the performance of the Borrower under the POW, in accordance with the agreed Ghana health sector performance indicators.

5.5 **Recommendation**. Subject to agreement to the above, the proposed program will constitute a suitable basis for an IDA Credit of SDR 25.1 million (US$35 million equivalent) to the Republic of Ghana on standard IDA terms with a maturity of 40 years.

Ghana at a glance

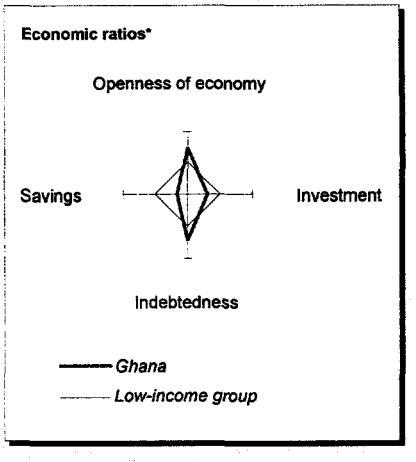
POVERTY and SOCIAL	Ghana	Sub-Saharan Africa	Low-income
Population mid-1995 *(millions)*	17.1	589	3,188
GNP per capita 1995 *(US$)*	390	490	460
GNP 1995 *(billions US$)*	6.7	289	1,466
Average annual growth, 1990-95			
Population *(%)*	2.8	2.8	1.8
Labor force *(%)*	3.0	2.8	1.9
Most recent estimate *(latest year available since 1989)*			
Poverty: headcount index *(% of population)*	31	..	..
Urban population *(% of total population)*	36	31	29
Life expectancy at birth *(years)*	59	52	63
Infant mortality *(per 1,000 live births)*	73	92	58
Child malnutrition *(% of children under 5)*	27	..	38
Access to safe water *(% of population)*	57	47	75
Illiteracy *(% of population age 15+)*	40	43	34
Gross primary enrollment *(% of school-age population)*	76	71	105
Male	83	77	112
Female	70	64	98



KEY ECONOMIC RATIOS and LONG-TERM TRENDS

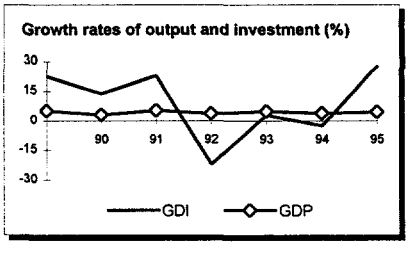
	1975	1985	1994	1995
GDP *(billions US$)*	2.8	6.3	5.4	6.3
Gross domestic investment/GDP	12.7	9.6	15.9	18.6
Exports of goods and non-factor services/GDP	19.4	10.7	25.5	25.0
Gross domestic savings/GDP	13.7	6.6	4.5	10.1
Gross national savings/GDP	12.9	5.3	7.5	12.2
Current account balance/GDP	-0.1	-4.2	-8.4	-6.4
Interest payments/GDP	0.7	0.5	1.5	1.6
Total debt/GDP	25.6	35.6	99.4	89.1
Total debt service/exports	6.4	23.6	24.4	23.3
Present value of debt/GDP	..	..	61.7	..
Present value of debt/exports	..	..	238.2	..

	1975-84	1985-95	1994	1995	1996-04
(average annual growth)					
GDP	-0.3	4.4	3.8	4.5	5.9
GNP per capita	-2.6	1.1	0.5	1.4	2.8
Exports of goods and nfs	-10.0	8.0	0.4	3.4	5.9

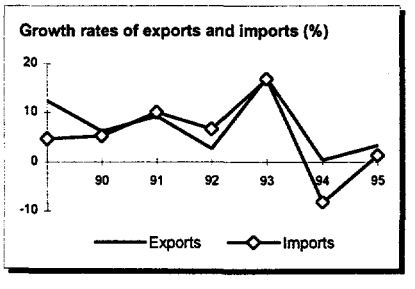


STRUCTURE of the ECONOMY

	1975	1985	1994	1995
(% of GDP)				
Agriculture	47.7	44.9	46.4	46.3
Industry	21.0	16.7	16.0	15.8
Manufacturing	13.9	11.5	8.5	8.3
Services	31.3	38.4	37.7	37.9
Private consumption	73.3	84.0	83.8	77.5
General government consumption	13.0	9.4	11.6	12.4
Imports of goods and non-factor services	18.4	13.6	36.9	33.5



	1975-84	1985-95	1994	1995
(average annual growth)				
Agriculture	1.2	1.9	2.6	4.2
Industry	-8.2	5.4	4.3	3.3
Manufacturing	-9.3	3.6	4.0	1.8
Services	2.8	7.5	4.5	5.0
Private consumption	-0.3	3.7	4.2	1.0
General government consumption	3.2	6.6	-6.4	11.6
Gross domestic investment	-7.3	5.6	-2.6	27.8
Imports of goods and non-factor services	-10.3	6.5	-8.2	1.3
Gross national product	-0.3	4.2	3.5	4.4



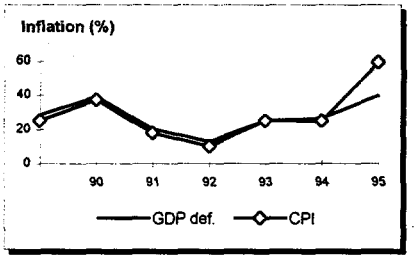
Note: 1995 data are preliminary estimates.

* The diamonds show four key indicators in the country (in bold) compared with its income-group average. If data are missing, the diamond will be incomplete.

Ghana

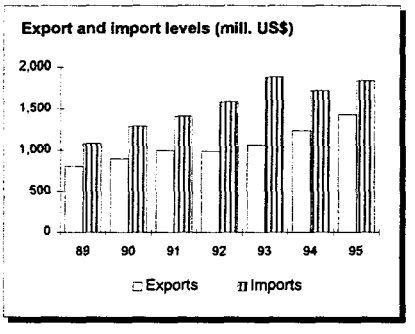
PRICES and GOVERNMENT FINANCE

	1975	1985	1994	1995
Domestic prices				
(% change)				
Consumer prices	29.8	10.4	24.9	59.5
Implicit GDP deflator	30.8	20.6	26.6	39.8
Government finance				
(% of GDP)				
Current revenue	..	11.3	23.7	22.3
Current budget balance	..	0.1	4.8	4.9
Overall surplus/deficit	..	-4.1	-6.8	-8.3



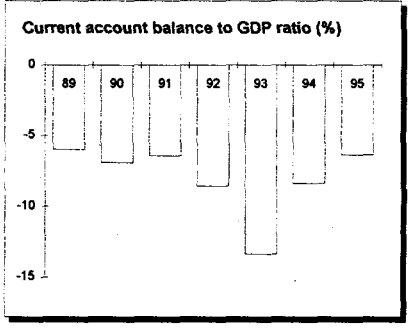
TRADE

	1975	1985	1994	1995
(millions US$)				
Total exports (fob)	..	633	1,236	1,431
Cocoa	..	412	320	390
Gold	..	28	549	647
Manufactures	..	..	..	..
Total imports (cif)	..	729	1,724	1,842
Food	..	40	45	56
Fuel and energy	..	199	175	197
Capital goods	..	187	348	398
Export price index *(1987=100)*	..	93	90	100
Import price index *(1987=100)*	..	103	121	127
Terms of trade *(1987=100)*	..	90	74	79



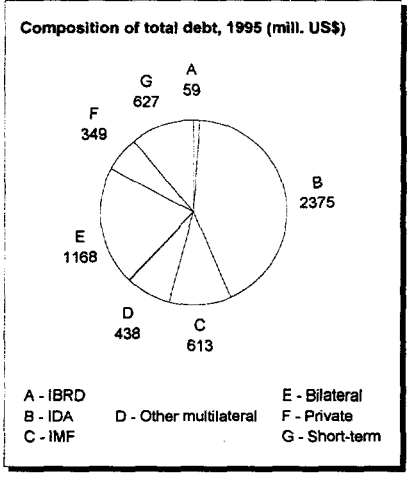
BALANCE of PAYMENTS

	1975	1985	1994	1995
(millions US$)				
Exports of goods and non-factor services	891	672	1,384	1,582
Imports of goods and non-factor services	882	857	2,000	2,118
Resource balance	9	-185	-616	-536
Net factor income	-36	-111	-111	-130
Net current transfers	24	33	271	263
Current account balance, before official transfers	-3	-263	-456	-402
Financing items (net)	0	148	620	686
Changes in net reserves	3	116	-163	-284
Memo:				
Reserves including gold *(mill. US$)*	147	552	593	780
Conversion rate *(local/US$)*	1.9	54.4	956.7	1,199.8



EXTERNAL DEBT and RESOURCE FLOWS

	1975	1985	1994	1995
(millions US$)				
Total debt outstanding and disbursed	721	2,243	5,389	5,629
IBRD	40	118	70	59
IDA	44	259	2,094	2,375
Total debt service	57	159	343	382
IBRD	5	18	20	21
IDA	1	3	21	25
Composition of net resource flows				
Official grants	8	75	218	235
Official creditors	13	93	230	259
Private creditors	-17	35	48	-38
Foreign direct investment	71	6	233	230
Portfolio equity	0	0	557	102
World Bank program				
Commitments	89	191	88	299
Disbursements	10	70	178	242
Principal repayments	2	10	19	23
Net flows	8	60	159	219
Interest payments	3	11	20	23
Net transfers	5	49	139	196



GHANA HEALTH SECTOR SUPPORT PROGRAM
Major Causes of Morbidity and Mortality in Ghana

Main Health Problems

Under 1

- Prematurity
- Asphyxia neonatorum
- Neonatal tetanus

1 - 4 Years (Both Sexes)

- Malaria
- *Diarrheal diseases*
- Malnutrition e.g. micronutrient deficiencies
- Vaccine preventable diseases e.g. measles

5 - 14 Years (Both Sexes)

- *Worm infestation*
- Schistosomiasis
- Dental caries, gingivitis and tooth decay
- Accidents, trauma and injuries
- Visual and auditory problems
- Yaws

15 Years and Above (Both Sexes)

- Tuberculosis
- Sexually transmitted diseases - HIV/AIDS
- Hypertension and strokes
- Diabetes
- Cancers (e.g. lymphoma, cancer of the cervix, hepatoma)

15 - 44 Years (Females Only)

- Hemorrhage e.g. due to abortion, obstructed labor
- Toxemia of pregnancy
- Infections e.g. genital sepsis

Most Common Causes of Illness Reported at Ministry of Health Facilities (1994)

Disease	Reported Incidence (per 10,000 pop)
Malaria	1464
Upper Respiratory Tract Infections	295
Diarrhea	185
Skin Diseases	184
Accidents	170
Intestinal Worms	106

Number of Out-Patients Seen at Ministry of Health Facilities - 1990-95

Year	Out-Patients	Per Capita
1990	4,549,223	0.27
1991	4,952,098	0.30
1992	5,169,224	0.31
1993	5,811,059	0.35
1994	5,409,132	0.32
1995	5,635,201	0.33
1996 (Jan-June)	2,811,195	

Coverage of Public Health Service (Percent)

	1992	1993	1994	1995
Ante-Natal	83	87	82	81
Supervised Deliveries	37	41	41	40
Post Natal	24	29	28	30

Immunization Coverage Rates (Percent)

Coverage (0-11 Months) 1991 - 1996						
	1991	1992	1993	1994	1995	1996
BCG	56	61	68	61	67	65
DPT3	40	40	48	48	52	51
OPV3	40	50	48	48	51	52
Measles	40	43	50	50	55	53

Source: Ministry of Health

GHANA HEALTH SECTOR SUPPORT PROGRAM
Allopathic Health Facilities by Ownership and Type

Agency	Hospital	Health Center	Clinic	Total
MOH	60	362	252	674
Quasi-Govt.	24	32	0	56
Mission	41	63	588*	895*
Private	50	253		
TOTAL	**175**	**610**	**840**	**1625**

Source: CHIM, MOH, 1994
NB: Private = Clinics, Maternity Homes, Private Hospitals.
* The figure of clinics is combined for mission and private

Health Facility Distribution by Region and Type, 1996

Region	Hospital	Hospital beds	Beds/1000 Population	Health Center	Clinic
Ashanti	19	1889	0.62	159	128
Brong Ahafo	16	1226	0.63	37	150
Central	15	1322	0.83	60	73
Eastern	23	2066	0.83	42	87
Greater Accra	39	1917	0.90	36	192
Northern	7	520	0.29	52	22
Upper East	10	566	0.79	40	28
Upper West	6	680	0.96	23	28
Volta	22	1419	0.80	90	147
Western	18	1397	0.87	71	64
Ghana	**175**	**13002**	**0.73**	**610**	**840**

1996 Population = 17.8 million

Distribution of Health Workers, 1996

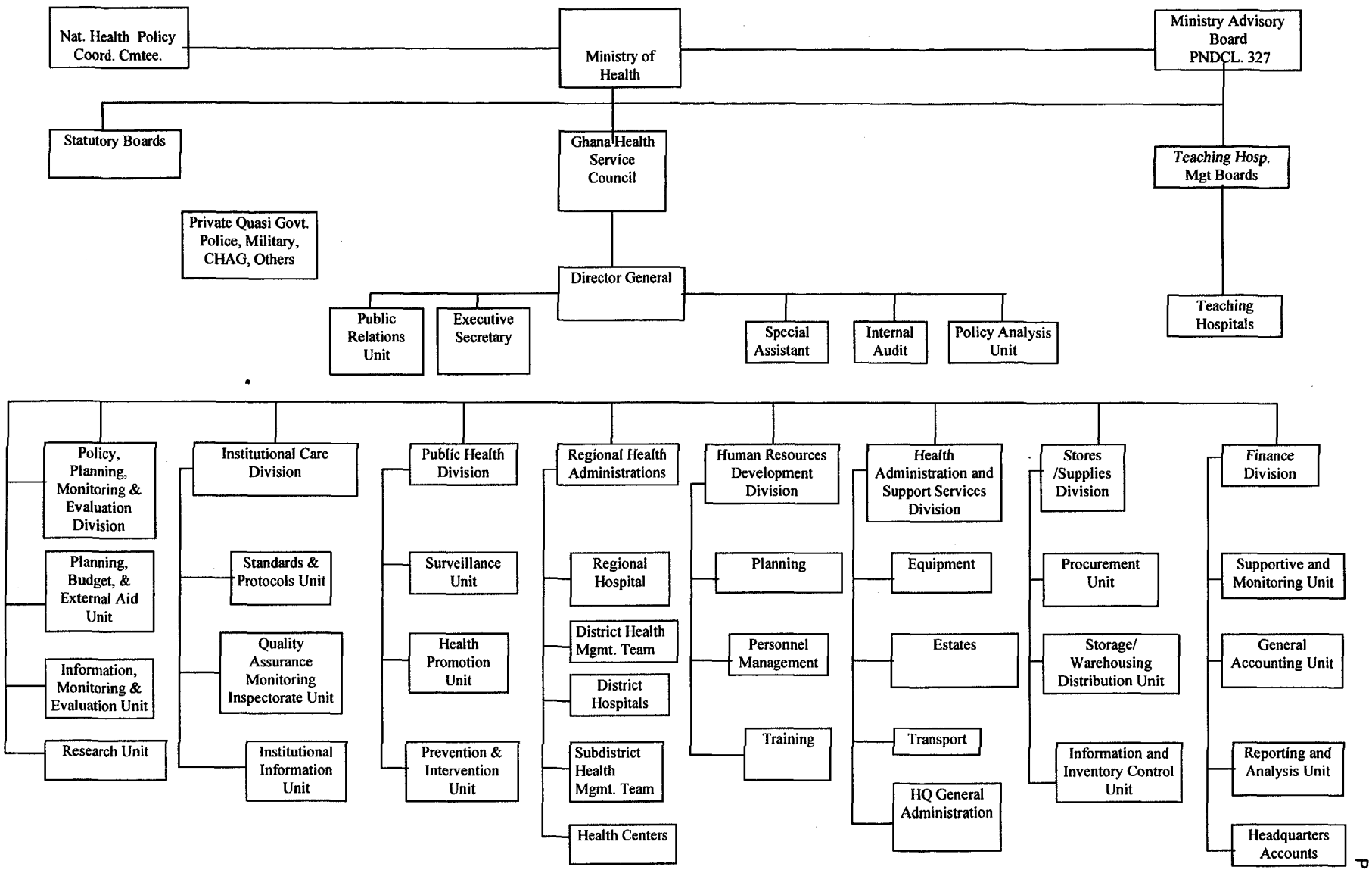
Category	National Level	Regional Level	District Level	Country Level
Specialist	2	17	5	26
Medical Officer	558	146	235	1,031
Subtotal	560	163	240	1,057
Medical Assistant	4	39	70	342
Dentist	14	8	13	42
Other Oral Health Personnel	1	2	2	9
Professional Nurses (General/Public Health Nurses & Midwives)	1,923	1,123	1,434	5,728
Enrolled Nurses	982	1,028	1,413	4,582
X-Ray Technicians	102	72	199	476
Laboratory Technicians	81	27	31	145
Technicians (CDC)	21	55	106	245
Field Technicians	5	10	92	229
Health Services Administrator	13	17	25	55
Administrators	7	0	0	7
Public Health Personnel	93	50	20	188
Technical Officers (Nutrition)	1	7	42	84
Community Health Nurses	75	50	676	2,291
Pharmacist	61	48	55	192
Dispensing Technician	27	39	66	191
Therapists	15	2	1	18
Technologists	17	9	7	33
Scientific Officer	16	2	6	24
Drivers	125	119	132	443
Environmental Health	64	107	850	1,756
Others	2,959	1,861	3,776	11,508
Total	7,166	4,838	9,256	29645

Regional Distribution of Staff in the Ministry of Health, 1996

Region	Medical Officers		Professional Nurses		Total Staff		Population
	Number	%	Number	%	Number	%	(%)
Ashanti [1]	257	24	847	15	3,773	9	17
Brong-Ahafo	56	5	212	4	1,870	8	11
Central	46	4	382	7	2,536	10	9
Eastern	67	6	574	10	3,797	15	14
Greater Accra [2]	467	44	2,249	39	7,999	18	12
Northern	25	2	363	6	2,017	8	10
Upper East	19	2	158	3	1,122	5	4
Upper West	20	2	93	2	875	4	4
Volta	51	5	466	8	3,278	13	10
Western	53	5	384	7	2,378	10	9
TOTAL	1,061	100	5,728	100	29,645	100	100

[1] Include Komfo Anokye Teaching Hospital staff
[2] Includes headquarters and Korle Bu Teaching Hospital staff

GHANA HEALTH SERVICE - Organisational Relationships



GHANA HEALTH SECTOR SUPPORT PROGRAM
HISTORICAL HEALTH SECTOR EXPENDITURES

Ghana : Government. Budget (Broad)	**1991** Actual	**1992**	**1993**	**1994**	**1995**	**1996** Estimate
A. Total Revenue and grants (a+b)	417.3	424.5	742.1	1160.2	1863.5	2322.1
a. Total Revenue	354.4	333.6	578.1	975.8	1584.6	2015.4
Tax Revenue	319.5	301.8	509.2	841.1	1138.5	1728.9
Non-tax Revenue (excl. divestiture receipts)	34.9	31.7	69.0	134.7	446.1	286.5
b. Grants (c+d)	63.0	90.9	164.0	184.4	278.9	306.7
c. Project Grants	26.7	58.2	97.4	134.9	185.1	229.2
d. Program Grants	36.3	32.7	66.6	49.5	93.8	77.5
B. 'Total Expenditure (e+f)	474.4	688.7	1123.1	1621.8	2359.7	3312.7
e. Current Expenditure	273.0	400.4	694.3	929.6	1270.6	1998.6
Non-interest	230.2	339.4	559.5	699.1	941.9	1419.3
Wages and Salaries	105.6	171.1	227.6	297.1	431.0	599.5
Other Purchases of GDS	60.5	69.2	141.2	170.0	190.1	398.8
Subventions and Transfers	64.1	99.1	190.7	232.1	320.7	421.0
Interest	42.8	61.0	134.8	230.5	328.8	579.3
Domestic	29.6	34.9	94.3	166.4	232.9	434.5
External	13.2	26.1	40.4	64.0	95.8	144.8
f. Capital Expenditure & Net lending (g+h)	201.3	288.3	428.8	692.2	1089.0	1314.1
g. Domestic	78.6	131.3	143.3	236.2	524.1	582.9
h. Foreign Financed	122.8	157.0	285.6	456.0	565.0	731.2
Overall Fiscal Surplus/Deficit (Commitment basis)	-57.0	-264.2	-381.0	-461.6	-496.2	-990.6
i. Domestic Arrears	0.0	21.0	16.0	9.0	81.0	-22.2
Overall Fiscal Surplus/Deficit (Cash basis)	-57.0	-243.2	-365.0	-452.6	-415.2	-1012.8
Divestiture recipts	0.0	0.0	79.5	255.3	106.2	175.6
Narrow Fiscal Surplus/Deficit (Cash basis) (a+d-e-g+i)	39.0	-144.4	-176.8	-131.5	-35.3	-510.7
Memorandum Items						
GDP (Cedis bill)	2427.5	2802.9	3674.9	4950.4	7418.0	10384.5
GDP Gr % (real 1975 prices)	5.3	3.9	5.0	3.8	4.5	5.2
Exchange rate (cedis/$) period average	375.0	437.0	649.0	956.6	1199.8	1637.0
M2 (% change)	27.2	50.3	27.4	46.2	37.5	34.3
Population (millions)	15.3	15.8	16.3	16.7	17.2	17.8
Inflation CPI (%) period average	18.0	10.1	25.0	24.9	59.5	45.6

Ghana : MOH Budget	**1991** Actual	**1992**	**1993**	**1994**	**1995**	**1996** Estimate
MOH Health Recurrent Expenditure	25.6	34.8	49.2	48.6	65.4	98.7
MOH Capital Expenditure	3.1	4.1	4.4	5.0	12.4	26.8
Internally Generated Fund	2.0	2.7	4.3	6.0	6.5	9.1
Total MOH Expenditure	30.7	41.6	58.0	59.6	84.4	134.5
External Aid (in US$ million)				26.7	29.0	35.0
AID Capital (in US$ million)				8.5	9.3	11.2
Commercial Loans (in US$ million)						60.5
AID Recurrent (in US$ million)				18.2	19.7	23.8
Total Capital Expenditure	3.1	4.1	4.4	13.9	23.5	149.0
Total Recurrent Expenditure	27.6	37.5	53.6	73.6	95.7	146.7
Total Health Expenditure	30.7	41.6	58.0	87.5	119.2	295.6
Domestic	30.7	41.6	58.0	59.6	84.4	134.5
External				8.9	11.1	122.2
MOH Rec./ GOG Rec.(narrow, excluding intersts)	11.1%	10.3%	8.8%	6.9%	6.9%	7.0%
MOH Recurrent / GOG Recurrent	9.4%	8.7%	7.1%	5.2%	5.2%	4.9%
MOH Capital / GOG Capital	3.9%	3.1%	3.1%	2.1%	2.4%	4.6%
MOH Item 1 / GOG Wages (item 1)				10.1%	9.8%	9.6%
MOH Item 1/ MOH Recurrent				62.0%	64.2%	58.3%
MOH Item 2-5 (+10% of subv) / GOG OGS (incl 10% of subv)				7.9%	7.7%	7.0%
IGF/Total Health Expenditure	6.7%	6.5%	7.5%	6.9%	5.5%	3.1%
IGF/Total MOH Recurrent Expenditure	8.0%	7.8%	8.8%	12.4%	10.0%	9.2%
MOH Total / GOG Total	8.2%	7.3%	6.4%	4.6%	4.3%	4.9%
MOH Total / GDP	1.18%	1.39%	1.46%	1.08%	1.05%	1.21%
Total Health / GDP	1.26%	1.48%	1.58%	1.77%	1.61%	2.85%
Per capita Health Expenditure (US $)						
Health Expenditure per capita (excluding aid& com. loan)	$5.35	$6.03	$5.50	$3.72	$4.08	$4.62
Health Expenditure per capita (including aid)	$5.35	$6.03	$5.50	$5.46	$5.76	$10.16

GHANA HEALTH SECTOR SUPPORT PROGRAM
Program Summary Costs and Financing

Program Costs

The proposed Health Sector 5 Year Program (1997-2001) will be financed by resources from government revenue, private sources and external aid. The resource envelope for the program is estimated to be $824 million for the next five years (Table 1).

Table 1 Health Sector Program Resource Envelope

US$ Million

Sources	1997	1998	1999	2000	2001	TOTAL	Percent
GOG	71.9	89.1	98.8	110.0	130.7	500.4	62.3
Recurrent	52.2	67.7	77.7	88.3	104.9	390.7	47.4
Capital	19.8	21.4	21.1	21.7	25.8	109.8	13.3
Internally Generated Funds	8.5	9.2	9.6	10.4	11.1	48.9	5.9
Commercial Loans	54.8	22.2	0.0	0.0	0.0	77.0	9.3
External Aid	37.6	40.0	40.0	40.0	40.0	197.6	24.0
Recurrent	19.5	25.3	12.0	12.6	16.7	86.1	10.5
Capital	18.1	14.7	28.0	27.4	23.3	111.5	13.5
Total -Recurrent	80.2	102.2	99.3	111.2	132.7	525.6	63.8
Total - Capital	92.7	58.3	49.1	49.1	49.1	298.3	36.2
TOTAL BUDGET	**172.9**	**160.5**	**148.4**	**160.3**	**181.8**	**823.9**	**100.0**

Assumptions

The estimation is based on the April 1997 macroeconomic projections of GDP growth, inflation government expenditure on health, expected external aid and income from user charges. Table 2 presents the macroeconomic projections.

Table 2 Health Sector Program Macroeconomic Projections (billions of cedis)

Ghana : Government Budget (Broad)	1997	1998	1999	2000	2001
	Projections				
A. Total Revenue and grants (a+b)	2853.2	3449.9	3743.6	4145.4	4549.6
a. Total Revenue	2644.0	3156.0	3521.9	3861.7	4259.5
b. Grants	209.2	293.9	221.7	283.7	290.1
B. Total Expenditure (e+f)	3553.1	3967.9	4068.5	4418.1	4902.7
e. Current Expenditure	2225.0	2348.2	2300.4	2538.5	2813.8
f. Capital Expenditure & Net lending	1328.2	1619.7	1768.0	1879.6	2088.9
Overall Fiscal Surplus/Deficit (Commitment basis)	-700.0	-518.1	-324.9	-272.7	-353.2
GDP (Cedis bill)	13583.0	15533.8	17371.4	19243.8	21419.3
GDP Gr % (real 1975 prices)	5.0	5.5	5.5	5.5	6.0
Exchange rate (cedis/$) period average	1932.0	2068.0	2192.0	2238.9	2289.1
Population (millions)	18.3	18.8	19.4	20.0	20.6
Inflation CPI (%) period average	30.5	8.4	6.0	5.0	5.0

The three key assumption for financing resource are as follows:

- Government spending on health will increase in real terms during the program period. The MOH recurrent budget as a share of the total government recurrent budget, less debt service payments, will rise from 7 percent in 1997 to 11 percent in 2001 and the share of the MOH capital budget will stay at 6 percent of the total government capital budget during the period 1998-1999 and 5 percent from 2000-2001.

- External aid will provide about $40 million per year for five years, near the current level, though better accounting of actual aid expenditures should yield changes in the estimated amounts in subsequent years;

- Funds generated from user fees will continue to be modest: IGF will increase at 5 percent per annum in real terms from 1997-2001.

Sources of Financing

Government, donor, and fees from patients are the main sources of financing of the POW. The 1997 budget includes financing from these sources (Annex 8), whereas Table 3 shows the financing of the 1997 capital projects.

Government Financing

The Government will continue to play the major role in providing and financing health services. The funds from the GOG are the largest financial source for the Health Sector Program and provide 62 percent of the total program budget. The level of government spending on health is affected by key assumptions about the share of the GOG budget out of the total GDP as well as by the share of the MOH budget out of the GOG budget. It is expected that the rate GDP growth will increase from 5 percent in 1996 to 6 percent in the year 2001. Government will spend, on average, about 6.5 percent of its total annual budget on health for implementing the POW, which will return government health spending on the MOH back to the level of the early 1990s.

External Aid Support

External Aid pays a significant role in financing health sector in Ghana. Donor funds to the health sector are estimated to have increased from $28 million in 1994 to $35 million in 1996, though better accounting of expenditures may explain some of this difference. Current aid expenditures are likely overestimated, since much technical assistance and training is not fully accounted for, though estimates of aid pledges also tend to exceed actual disbursement. Aid expenditure is expected to increase to about $40 million per annum during the medium term (a 14 percent increase over 1996). Hence, total contributions from 16 current donors for financing the POW is expected to be $198 million. Fifty-six percent ($111.5 million) of aid expenditure will be capital expenditure. Donor support for the health sector, as a share of total health expenditure, will remain about 24 percent over the medium term and account for 10 percent of the total external aid coming to Ghana.

Private Spending on Health

The government has long ago moved away from an unaffordable free health care system. In the medium term, financing health services will continue to depend on user charges from the use of the services. The government is revising its user charge policy in order to capture unofficial charges which are being made at many facilities, and to make fees more transparent. The new policy of charging will also redirect patient flows to different levels of services through sending price signals, with lower fees at health centers and for referrals. Revenues generated from user fees are still retained at the point of collection to improve quality and expand the coverage of services.

The Government also realises the access and equity issues in the sector are affected by user charges policy. One third of the population lives in poverty: They under-use the services, yet pay higher proportions of their income on health services. The revised exemption policy includes greater funding of exemptions from the GOG budget. During the medium term, there will not be a significant increase in resources generated from user fees. The total of Internally Generated Funds is estimated to contribute approximately 6 percent of the total resource envelope. This is considered a conservative estimate, that is likely to change upwards as new estimates of actual revenues are made under the new policy and improved financial accounting systems.

Table 3 Financing Plan of 1997 Capital Program

LEVEL	FACILITY TYPE	CONST TYPE	NUMBE	COST	GOG	ADB	OPEC	DANIDA	JICA	ODA	SAUDI	USAID	IDA	COMM LOAN	TOTAL
DISTRICT	Health Centre	New	45	3,158,948							2,695,955		462,992		3,158,948
		Rehabilitat	52	2,165,072	1,263,000										1,263,000
	Hospitals	New													
		Upgrade H	5	3,443,571	446,000		1,000,000						1,157,000		2,603,000
		Rehabilitat	10	20,605,292	1,905,000	1,371,000								7,533,000	10,809,000
	DHMT Offices	New	19	867,785	286,000								399,000		685,000
REGION	Hospitals	New	3	51,392,189	8,801,860									42,590,329	51,392,189
		Major Reh	2	4,750,044	117,388									4,632,656	4,750,044
		Rehabilitat	1	1,117,952	188,570										188,570
	Psych Wings	New													
	Special Clinic	New/Reha	27	780,000	22,000			263,000				116,000			401,000
	RHMT Offices	Major Rehab													
		Rehabilitat	1	28,000	28,000										28,000
	Training Instit	Rehabilitat	15	7,760,000	440,000			7,200,000	120,000						7,760,000
	Medical Store	New/Reha	9	530,000									320,000		320,000
TERTIAR	Korle Bu TH	Rehabilitation		1,360,000	1,360,000										1,360,000
	Konfo Anokye	New/Rehab		755,000	755,000										755,000
	Pantang	Rehabilitat	1	1,511,947	126,000										126,000
	Ankaful	Rehabilitat	1	1,147,622	86,000										86,000
	Dept Psychiat	New	1	236,327											
NATIONA	Equip Worksh	New	1	52,500						52,500					52,500
	IECRS Res C	Rehabilitat	1	180,000								180,000			180,000
	GHS	New													
	MOH HQ	Rehabilitation													
TOTAL			**194**	**101,842,248**	**15,824,818**	**1,371,000**	**1,000,000**	**7,463,000**	**120,000**	**52,500**	**2,695,955**	**296,000**	**2,338,992**	**54,755,984**	**85,918,250**
TOTAL EXC NEW REGIONAL HOS			191	50,450,059	7,022,958	1,371,000	1,000,000	7,463,000	120,000	52,500	2,695,955	296,000	2,338,992	12,165,656	34,526,061

GHANA HEALTH SECTOR SUPPORT PROGRAM
Process For The Definition And Review Of Capital Projects

There is a need to establish a process to ensure that the projects implemented under the 5-year Capital Program are cost effective, and that they satisfy the service requirements established for them. The process needs to cover both project definition and project review. Wherever possible project promoters, including the MOH itself, should be encouraged to complete the process of analysis and review defined below before submitting their projects for approval. In some cases however project submissions will arrive at the MOH without all of the necessary planning steps having been completed. It will then be for the MOH to review the project and if necessary to return it to the promoter to complete the process.

Projects submitted to the MOH for approval should be documented in a standard format covering the following aspects. Where the MOH itself is the principal promoter of the project the same format should be followed.

1 STRATEGIC CONTEXT

The purpose of this stage is to define the needs which the project is intended to satisfy. For some projects it may be appropriate for the Strategic Context section to be submitted in advance of the detailed option appraisal and scheme description in order that approval in principle can be given by MOH before costs are incurred in working up the details of the proposal.

1.1 Policy Framework

This section should establish the context for the project, by providing a resume of the relevant policy frameworks which the project is intended to satisfy, for example by reference to the priorities established in the Medium Term Health Strategy. The financial context for the project also needs to be clearly stated, for example assumptions on capital and recurring cost funding built into MOH's current Program of Work.

1.2 The Current Situation

This section should summarize health service provision and utilization in the region/district/sub-district in which the project is to be executed, drawing attention to its strengths and weaknesses, to any opportunities for improvement or threats to the current level of service.

1.3 Future Service Needs

This section should provide a quantified description of the service requirements that the project is intended to satisfy, drawing on the policy framework and the assessment of the current situation, and demonstrating the type and scale of provision required in any new or refurbished facilities or equipment. Mere assertion of requirements should not be accepted as a satisfactory response: evidence and calculations should be presented to show that the proposed scale of provision is necessary.

In the past there appears to have been some resistance to the idea of defining service needs in the way that is suggested here. This may be because it implies the setting of a limit on requirements, and that this is in conflict with the perception that the gap between Ghana's resources and those of the developed countries is so great that there is no danger of over-provision whatever the scale of expansion that is

implied by the project in question. Although this would be an understandable reaction, it is misguided for two main reasons. Firstly, although buildings and equipment are easy to provide, the resources needed to bring them into use, namely staff and supplies, are in short supply and are likely to remain so over the period of the MTHS. Secondly, the problems of access, both physical and social, mean that in Ghana some kinds of health service provision, most notably hospital inpatient services, can only be used efficiently if they are provided on a comparatively modest scale. In addition it is worth noting that the scale of provision of hospital beds in developed countries is constantly reducing as clinical practice and modern management change the way in which hospitals are used, so that the gap between the number of acute hospital beds per 1000 population in the developed countries and in Ghana is much narrower than it used to be.

1.4 The Case for Change

This section should contrasts the future service needs with the current situation in order to demonstrate the need for capital investment. The case for change should also establish the degree of priority by comparison with other regions/districts/sub-districts. A sound case for change will also include a broad demonstration that the change is likely to be affordable, and that the project is sustainable. Exact project costs cannot be known until later in the process, after the appraisal of options, but approximate values, reflecting the proposed method of procurement, need to be stated here to demonstrate compatibility with the financial context.

1.5 Approval in Principle

In summary, approval in principle to the project can be granted on the basis of a satisfactory response to the following criteria:

* Fit with strategic health objectives;
* Proven quantified service need;
* Priority for action based on absence of provision or condition of existing facilities;
* Value for money, i.e. efficient specification and method of procurement;
* Affordability, i.e. fit with capital program;
* Sustainability, i.e. availability of staff and supplies.

It should be noted that the fact that an allowance has been made for the project in the capital program should not of itself be taken as sufficient reason to grant approval in principle: it still needs to be clear that the other criteria have been satisfied.

2 OPTIONS APPRAISAL

The purpose of this stage is to identify the preferred solution to the problem

2.1 Objectives

This section is intended to define the objectives which the preferred solution should satisfy. These will vary from project to project but some objectives will be common to all. The following examples include some which are also included in the approval-in-principle stage but which may need to be restated and re-evaluated at the options appraisal stage:

Service capacity	The solution must be capable of delivering the service volumes specified for it. This may have implications both for buildings and equipment.

Accessibility	In many projects different solutions have different impacts on service accessibility: these needs to be assessed and compared.
Quality of accommodation and/or equipment	Comparisons will need to be made between new build/ replacement and refurbishment/recondition options, and between alternative configurations of accommodation.
Timing & disruption	The solution should be capable of being implemented in a reasonable period of time and with minimal disruption to ongoing services.
Achievability/ Sustainability	It needs to be clear that the project can be implemented in full, i.e. staffed, supplied, and brought into continuing operation, and not just built and equipped.
Affordability	The capital costs should be consistent with available finance and the recurring cost consequences, including the service of any capital loans, should sustainable within the MOH's budget.
Value for Money	Taking capital and recurring costs together, for example by using discounted cash flow analysis, the preferred solution should provide the lowest possible total cost for the highest possible combination of benefits.

2.2 Option Definition

The selection of options for consideration should initially be as broad and radical as possible, to ensure that no viable solution is overlooked. The range of options considered should include the possibility of the service being provided by some other agency, e.g. NGO or private sector instead of MOH, or by an adjacent district/sub-district. Such options may minimize the need for capital investment by allowing more intensive use of existing facilities. It is also necessary to consider a do-nothing/do minimum option, to prove the case for change and to provide a baseline against which other options can be compared. Alternative design solutions may also figure in the range of options.

2.3 Appraisal

The process of option definition, if carried out in an open-minded and enthusiastic way, will often result in a fairly long list of alternative solutions. In many situations such a list can be appraised quite rapidly, so as to produce a short-list of options worthy of more serious consideration. Short-listed options will need to be worked up in sufficient detail to allow detailed evaluation against each of the objectives described in Section 2.1.

Sometimes the process of evaluation results in the emergence of a clear winner, for example a low cost solution with greater benefits than the high-cost alternatives. When this is not the case some form of cost-benefit analysis may be needed to reach a decision. Typically such methods reduce the non-financial appraisal to a score against each objective or criterion for each option. The individual criterion scores are then combined into a total score for the option by weighting the criteria to reflect their relative importance. Useful though such scoring systems can be in clarifying the issues and the relative merits of competing solutions, the process needs to be approached with a degree of skepticism, in case the scores are taken to have some objective validity stronger than the arguments which gave rise to them in the first place.

It is unfortunately the case that option appraisals are often conducted in a cynical manner, to justify a decision that has already been taken without the benefit of objective analysis, rather than in a genuine spirit of inquiry. The risk of this is reduced if project promoters can be required to adopt the new methodology before they get too far in their thinking, and if the MOH provides an effective review process. It is important not to let the threat of delay act as a deterrent to turning back projects which have not been properly thought through.

This is particularly relevant to projects which are promoted with linked finance. It has already been seen that generally such projects fail the test of providing value for money, due to the absence of effective competition. An option appraisal conducted by such a promoter runs the risk of containing only high-cost solutions that are of interest to the promoter. Section 1.4 - The Case for Change - provides an early filter to weed out such projects, but if one gets through to full appraisal it may be necessary for the MOH to insert its own "public sector comparator" into the appraisal to ensure value for money.

If a situation arises in which the costs of the project at the option appraisal stage turn out to be significantly higher than those on which an approval in principle was granted, it may be necessary to reconsider the basis of the initial approval.

GHANA NATIONAL HEALTH SECTOR PROGRAM OF WORK AND BUDGET: 1997 SUMMARY

A. INTRODUCTION

1. The summary of the Ghana national health sector program of work (POW) and budget for 1997 encapsulates all activities of public sector Budget and Management Centers (BMCs) financed from the following sources: (a) Government of Ghana (GOG) Ministry of Health (MOH) budget; (b) District Assembly common fund; (c) internally generated funds (IGF); (d) project funded grants and credits; (e) program grants and credits with flexible allocations, including funds placed in a common account for direct allocation to BMCs; and (f) commercial loans.

2. This is the first annual national broad-based budget and program of work summary in the health sector. Some of the main features of the 1997 POW and budget are: (a) increased resources for management by BMCs that provide health services, particularly at the district level; (b) explicit financing of fee exemptions to benefit needy groups; (c) stronger emphasis on developing capacity to operate critical health systems; (d) for the first time a complete listing of all projects from government, donor and commercially funded public enterprises; and (e) the introduction of pooled funds from donors for direct allocation to BMCs.

3. The 1997 POW and Budget is a transitional plan and budget for the health sector program described in the Medium Term Health Strategy (MTHS) and the Five Year Program of Work (POW). Although broad based budgeting was attempted in 1997 by each BMC, the results generally included GOG sources of funds only (broad based budgets mean that activities and purchases financed from all sources of income have been included). Decentralized planning of service activities will continue to be used as the Ghana Health Service (GHS) is established, based on newly developed guidelines to develop and implement broad-based plans and budgets for 1998 (currently in draft). Though there is an increasing shift of resources to peripheral BMCs, major capital projects and bulk procurement of goods will be managed by central BMCs, for use at all levels of the health service.

4. The BMC is the fundamental unit of management accountability in the sector, with each BMC concentrating on fulfilling its responsibilities, which are broadly defined by level (a policy document is in preparation). The individual BMC plans are based on supporting the following seven strategies of the Five Year POW:

(1) Improve access, quality and efficiency of primary health (district level) services;
(2) Strengthen and reorient secondary and tertiary service delivery to support primary health services;
(3) Develop and implement a program to train adequate numbers of new health teams to provide and manage these services;
(4) Improve capacity for policy development and analysis, performance monitoring and evaluation, and regulation of service delivery and health professionals;
(5) Strengthen national support systems for human resources, logistics and supplies, financial management and health information;
(6) Promote private sector involvement in the delivery of health services;
(7) Strengthen intersectoral collaboration.

5. The subsequent sections of the 1997 POW summary consists of the following elements: (a) a consolidation of the main elements of annual plans from each level of BMCs for 1997; (b) summary budget

estimates for 1997; (c) a description of the use of funds according to source of funding; and (d) the results expected from each level of BMC.

B. SUMMARY OF 1997 ANNUAL PLANS

The Subdistrict BMCs

6. To improve quality and access to subdistrict health services, the subdistrict BMCs plan to:

a. Directly manage an increase in the allocation of items 2-5 (non-wage recurrent expenditure items) from 1.9 billion Cedis in 1996 to 3.6 billion Cedis in 1997 (excluding internally generated funds). BMCs use these funds to expand priority services and improve the quality of services by purchasing medical supplies, materials, training health staff, and funding maintenance and other operating costs, especially for better outreach clinical and public health services. To utilize additional funds from donor funds for direct allocation to BMCs, subdistrict BMCs would depend on the financial management of district or regional BMCs that have been certified to handle such funds.
b. Provide for fee exemptions for antenatal care, consultation and laboratory investigation for children under five and medical care for persons over 70, in addition to exemptions based on poverty. The mechanisms for managing exemptions funds are to be developed over the next few months.

7. The relevant central MOH BMCs will also procure and manage larger projects in collaboration with subdistrict BMCs to expand access and quality of subdistrict services:

a. Purchase of bulk vaccines, drugs, and medical supplies
b. Bulk purchase of 200 motorcycles for outreach services
c. Rehabilitate and re-equip 52 health centers, and
d. Complete construction and equipping of 45 new health centers

District Hospitals

8. The District Hospital BMCs plan to:

a. Directly manage an increase in the allocation of items 2-5 from 3.2 billion Cedis in 1996 to 7.4 billion Cedis in 1997 (excluding IGF), to be used to expand priority clinical services and improve their quality by purchasing medical supplies, materials, training health staff, and funding maintenance and other operating costs of hospital services.
b. Establish quality assurance programs in all district hospitals.
c. Provide for fee exemptions for antenatal care, consultation and laboratory investigation for children under five and medical care for persons over 70, in addition to exemptions based on poverty.

9. Central MOH BMCs will also manage and procure for the following major projects in collaboration with district hospital BMCs to expand access and quality of hospital services:

a. Purchase of bulk vaccines, drugs, and medical supplies
b. Initiate options appraisal to rehabilitate and re-equip 6 district hospitals, and complete rehabilitation and equipping of another 4 district hospitals
c. Initiate options appraisal to upgrade and equip 3 health centers to district hospitals, completing upgrading of another 2 health centers

District Health Administrations (DHAs)

10. To fulfill their responsibilities in assuring the health of their district, the district health administration (district health management team-DHMT) BMCs plan to manage an increase in allocation of items 2-5 from 2.1 billion Cedis in 1996 to 4.4 billion Cedis in 1997, largely to:

a. Design and conduct public information and education in each district
b. Liaise with local NGOs and other health providers and interest groups
c. Oversee the planning, budgeting, and financial management of the district level BMCs (DHAs, district hospitals, subdistricts)
d. Supervise and monitor all district health services
e. Strengthen the preparedness of districts to deal with district public health concerns, particularly for epidemics of cholera, cerebrospinal meningitis, and yellow fever

11. Central MOH BMCs will also manage construction and equipping of 19 new DHMT offices in collaboration with district administration BMCs, and procure in bulk another 20 pickup vehicles.

Regional Hospitals

12. Regional hospital BMCs plan to:

a. Directly manage an allocation 2.4 billion Cedis from GOG MOH on items 2-5 (compared to 2.2 billion Cedis in 1996) plus IGF and donor funds directly allocated to BMCs, to be used to expand the volume of hospital services and to improve the quality of services by purchasing medical supplies, materials, training health staff, and funding maintenance and other operating costs.
b. Establish functioning 24-hour emergency services in all Regional Hospitals.
c. Establish quality assurance programs and quality of care teams in all Regional Hospitals.
d. Provide for fee exemptions based on poverty, referral and emergency cases.

13. Central BMCs will also manage and procure for the following major projects in collaboration with regional hospital BMCs:

a. Purchase of bulk vaccines, drugs, and medical supplies
b. Initiate options appraisal to rehabilitate and equip Tamale and Koforidua Regional Hospitals, and complete rehabilitation and equipping of Effia Nkwanta Hospital
c. Complete construction of the new hospital at Cape Coast, while continuing on Ho and Sunyani hospitals
d. Initiate conversion of the existing hospital facility at Cape Coast

Regional Health Administrations

14. To fulfill the Regional Health Administration's (RHA) responsibilities in assuring the health of the Region, RHA BMCs plan to manage an allocation of 1.4 billion Cedis from GOG for items 2-5 (compared to 1.5 billion Cedis in 1996) plus donor funds directly allocated to BMCs, largely to:

a. Support the planning, budgeting, and financial management of the district health administrations, Regional Hospitals and Regional Training Institutions
b. Provide technical support and supervision to DHMTs and Regional BMCs

c. Establish regional training units for staff in-service training in three Regions
d. Strengthen epidemiological surveillance of common and epidemic conditions, including operation of three newly built Regional Public Health Laboratories

15. As part of a proposed hospital services development strategy, regional specialized tuberculosis and sexually transmitted disease clinics will be considered. Central MOH BMCs will also manage the completion and refurbishment of nine Regional Medical Stores.

Health Training Institutions

16. Health Training Institution BMCs would be provided a total of 1.4 billion Cedis for items 2-5 (compared to 1.6 billion Cedis in 1996) to manage the training of nurses, midwives, medical assistants and other mid-level health professionals.

17. Central MOH BMCs will also manage and procure for the following major projects in collaboration with the BMCs:

a. Bulk procurement of library materials, teaching and learning aids
b. Initiate options appraisal on major rehabilitation of 8 training institutions, while completing rehabilitation of an additional 6 training institutions
c. Complete refurbishment of 8 in-service training centers
d. Initiate options appraisal for establishment of a School of Allied Health Professionals

Teaching Hospitals

18. Teaching hospital BMCs would manage an allocation of 5.5 billion Cedis for item 2-5 from GOG (compared to 5.3 billion Cedis in 1996), excluding IGF funds, to:

a. Provide improved quality of tertiary referral and teaching services, and specifically to establish quality assurance programs in both hospitals.
b. Strengthen hospital planning and management

19. Some rehabilitation and equipping of Korle Bu and Komfo Anokye hospitals are planned for 1997, on the basis of an options appraisal and development of a hospital services operational policy.

Psychiatric Hospitals

20. These BMCs would manage an allocation of 0.5 billion Cedis from GOG for items 2-5 to provide psychiatric services at three facilities.

21. In collaboration with the Psychiatric Hospitals, central MOH BMCs would initiate options appraisal and beginning the rehabilitation of 2 psychiatric hospitals, and replacement of a Psychiatry Department at an existing facility, leading to the closure of Accra Psychiatric Hospital.

Ministry of Health Headquarters

22. To fulfill the MOH responsibilities in developing policy, a regulatory framework, allocating resources, and overseeing the health of the nation, the major initiatives planned by the central BMCs in 1997 are to:

a. Establish the Ghana Health Service. This includes: (i) articulation of responsibilities and design of new BMCs in the GHS, the central MOH, and other statutory bodies; (ii) finalizing staffing norms and job descriptions for each BMC; (iii) finalizing instruments to manage personnel issues of the GHS (transfer, recruitment, appointments, posting, performance appraisal, discipline, and schemes of service); (iv) establishing a Governing Council and National Executive of the GHS; and (v) informing the public on the proposed changes.

b. Strengthen national training programs. In 1997, this will include:
   (i) the establishment of institutionalize in-service training program. The Central HRD BMC would provide guidelines, materials, and technical assistance for Regional training units, and streamline the management of overseas training and postgraduate training.
   (ii) developing curriculum, materials, and technical assistance to re-orient and improve the knowledge base and skills of district health workers through in-service training in reproductive health, including STDs and HIV, case management of common conditions, and health services management.
   (iii) developing local training courses for the specialized nursing in critical care, operating room skills, and pediatrics.

c. Provide more effective support and standards for clinical and public health services. In 1997, clinical protocols will be developed for emergency care, while public health protocols will be developed for communicable disease control. This will form part of the guidance to be provided to establish quality assurance programs at hospitals.

d. Improve planning and performance monitoring. This includes further development and use of planning and budget guidelines for newly established BMCs in 1998, to better link a comprehensive set of inputs to results. The information system will be further developed through systematic review of medical records. As a result, performance monitoring of BMCs will be accelerated (see section E).

e. Improve capacity for policy analysis. In collaboration between the relevant divisions and the Division of Policy, Planning, Monitoring and Evaluation, the policy and procedures documents will be prepared on:
   (i) Hospital Services Operational Policy
   (ii) Development of contracts for NGO and private sector services
   (iii) Comprehensive Pharmaceuticals Policy

   During 1997, policy options papers will be prepared and/or commissioned to address issues of community participation, poverty alleviation, and gender concerns. Funds will also be used to commission policy related studies at the Research Centers at Navrongo and Kintampo on safe motherhood, community participation, and community-based health care. The Research Center at Dodowa will be also be developed.

f. Strengthen management of equipment, stores and supplies. A preventive maintenance plan will commence during the year at the national equipment workshop to implement systems to maintain equipment. The unit will also be the base for the establishment of a procurement unit for bulk purchases of medical equipment and supplies. During the year the Central Medical Stores will be transformed into a more autonomous business concern with a public health mandate. Some of the

main activities for these new units include the development of procurement manuals for central and decentralized procurement, and the management of bulk procurement.

g. Strengthen the management of estates and transport. The central estates unit BMC will undertake a preventive maintenance program, and be responsible for overseeing major capital works. This will entail developing procurement capacity as described in the joint MOH-donor procurement mission, and subsequent work on capital works options appraisal. Regarding transport management, the main focus will be on maintaining skills of drivers.

h. Strengthen health financing and financial management. HQ BMCs plan to use funds to:
   (i) strengthen financial controls systems, including the establishment of an internal audit unit.
   (ii) train staff, provide public education materials, and monitor the implementation of the new user fee and exemption regulations.
   (iii) initiate a pilot universal health insurance scheme in the Eastern Region to cover basic services. This would involve establishing the institution to manage the funds, developing operational manuals, capitalizing the insurance funds, providing public education, and registering subscribers.

i. Establish an unit in the MOH responsible for linkages with the private sector and NGOs. In 1997, the unit will develop its terms of reference through close contact with private sector representatives and NGOs.

j. Improve the regulatory functions of the MOH and statutory bodies. The Food and Drug Board is being established in 1997 to regulate drug quality control, including importation and manufacturing. Funds will also be allocated to strengthen the Nursing and Midwife Council, the Medical and Dental Council, and the Pharmacy Council.

k. Establish a directorate for herbal medicine to promote linkages with traditional medicine.

C. BUDGET ESTIMATES

23. The 1997 national health sector budget is 306 billion Cedis ($175 million), including a recurrent budget estimated at 148 billion Cedis ($85 million), and a capital budget of 158 billion Cedis ($90 million). Total public per capita health expenditure is thus planned at nearly $10 per capita in 1997. This is about $3 per capita higher than public spending on health in 1995, with the difference largely resulting from large capital projects. Of the total 1997 budget, GOG finances 46% (140 billion Cedis) directly and borrows 29% ($50 million) at commercial rates. Donors are projected to provide up to 22% ($39 million) of the budget, whereas IGF raises 3% (10 billion Cedis) of the total. Of the recurrent budget, GOG finances 68%, donors 25%, and IGF 7%. Excluding IGF and donor project funds, the overall recurrent budget rises by 18% in real terms from 1996 to 1997, and 36% at the district level. For funds allocated for direct management by BMCs responsible for clinical and public health service delivery at the district level (items 2-5, excluding IGF), the 1997 budget represents a real increase of 71% above inflation. In future years, other private sector expenditures will be increasingly incorporated into the budget estimates (for example, as part of the proposed contracting with mission hospitals and other private providers, they will report on revenues, expenditures, and services provided). The following budget tables are attached:

1. Recurrent Budget (Level of BMC by expenditure category by source of funds)
2. Capital Budget
   a. Level of BMC by expenditure category by source of funds
   b. List of donor and loan funded projects
3. Use of New Program Funds by Level of BMC

D. USE OF FUNDS BY SOURCE

24. **GOG MOH funds** are divided between recurrent (98 billion Cedis) and capital (31 billion Cedis) expenditures. The recurrent budget largely provides for fixed costs of BMCs, and some of the variable costs. The fixed costs are those associated with such as salaries and a basic level of operating costs, whereas the variable costs are associated with discretionary decisions and the volume and type of services provided. An additional 3.5 billion are being proposed to finance new exemptions categories in user fees in the recurrent budget (this amount may increase in 1997 up to 10 billion Cedis). Though the central MOH BMCs do bulk procurement of drugs, equipment, and medical supplies for use at lower levels, individual BMCs have discretion over their expenditures on items 2-5. Item 1 (salaries and emoluments) are administered through the central payroll system. The capital budget provides for counterpart funding of specific loans, credits, and grants, as well as complete financing of other indicated projects, and is managed by central MOH BMCs. 10.7 billion Cedis is also provided to mission hospitals and clinics as item 1 support (these persons are also included in the payroll system).

25. **The GOG District Assembly common fund** (7 billion Cedis) is used for minor rehabilitation and provision of supplies at health centers and district hospitals. The funds are managed by District Assemblies, and used in collaboration with DHMT BMCs with guidance from central MOH BMCs.

26. **Internally generated funds** (10 billion Cedis) are generated from user fees and administered and used at the point of collection (all the clinically-based BMCs). The bulk of these funds are used to purchase drugs through the cash and carry system, either from MOH medical stores or from the private market. These funds are also used to provide for other non-wage expenditures (items 2-5). The effect of changes in user fee policy in 1997 makes this estimate less reliable than in previous years.

27. **Project funding** from grants and credits ($24 million estimated for 1997) cover a full range of capital and recurrent expenditure items (though rarely for salaries other than incremental positions), and may be administered by specific BMCs, other designated project units, or by the donor agency. Since many of these projects have funding spread out over several years, these estimates are based on projections of how the capital program will proceed, and an estimate of how much recurrent expenditure will be used in 1997. Full accounting of grant aid for technical assistance, foreign training, medical supplies and other recurrent items is not complete. Whereas most of the existing donor assistance is in the form of project grants with earmarked uses during the project period, in the future, more flexibility in annually determining funding from grants and credits will be expected.

28. **Program funding** consists of **annually flexible funds** from grants and credits that are assigned for specific purposes annually in line with the sector POW ($12.5 million or 22 billion Cedis for 1997), and **direct allocations to BMCs** ($4 million or 7 billion Cedis for 1997) for decentralized management by BMCs. Direct BMC-allocated funds are pooled from donors in a common account and distributed to all BMCs. The major emphasis for BMC-allocated funds are the district level BMCs. Some bulk procurement of drugs and equipment and works (specialized clinics) will also be made by central BMCs for use at other levels. The basis for distribution of allocations among BMCs is the same criteria as GOG items 2-5. Subdistricts, DHMTs, and RHMTs receive their funds on a per capita basis, whereas hospitals receive funds according to bed size and patient volume. For 1998, other allocation formula will be developed to more explicitly support policy objectives.

29. **Commercial Loans** ($77 million in total; $50 million estimated for 1997; $61 million already spent in 1995-96) are funds administered by the central MOH and are used for specific large capital projects, notably the construction of Regional Hospitals and equipment. New commercial lending will be

sought on the same basis that the rest of the GOG pursues commercial sources of funds, though contracting through supplier originated credits will cease.

E. PERFORMANCE INDICATORS FOR BMCs

30. The Health Management Information System will undergo considerable change in 1997 as new BMCs are formed through the creation of the GHS. It is still expected that each BMC will develop their own set of performance indictors that are most appropriate for monitoring and decision-making at their own level. A simple set of standard national indicators of progress for each level of BMCs will also be finalized during 1997. Nonetheless, a minimum set of outputs will be measured by BMCs through routine information systems in 1997 to assess their performance and inform management decisions at a national level. Where appropriate, target levels will be set. For purposes of the government-health partners annual monitoring, an agreed set of 20 national indicators has been established for review during 1997. Longer term impact indicators on the health of the nation are outlined in the MTHS and Five Year Program of Work.

Ghana Health Sector Recurrent Budget 1997 - Combined GOG, IGF, and Grants and Credits

Level	GOG Item 1	GOG Item 6	GOG Items 2-5	GOG Exemptions Item 5	Internally Generated Funds Items 2-5	Project Funding (Grants & Credits) Items 2-5	Programme Funding (Grants & Credits) Items 2-5	Total Items 2-5	Total Recurrent
Headquarters	3,231,794,000	1,584,212,000	7,112,635,000	0	0	8,665,097,512	6,472,200,000	22,249,932,512	27,065,938,512
Tertiary Institutions	13,073,941,000	0	7,522,074,000	1,265,550,717	3,772,167,000	302,622,730	3,509,478,000	16,371,892,448	29,445,833,448
Korle Bu	7,502,214,000	0	2,795,562,000	743,031,919	2,214,720,000	50,437,122			
Komfo Anokye	3,746,797,000	0	1,949,852,000	495,985,347	1,478,360,000	252,185,609			
Psychiatric Hospitals	1,824,929,000	0	506,533,399	26,533,451	79,087,000				
Regional Health Services	11,243,622,000	0	5,265,047,000	64,742,869	192,976,000	1,805,648,958	4,723,740,000	12,052,154,827	23,295,776,827
Reg. Health Admin.	1,999,093,000	0	1,465,270,000	0	0	1,250,840,619			
Regional Hospitals	7,343,457,000	0	2,402,525,000	64,742,869	192,976,000	383,322,125			
Training Institutions	1,901,072,000	0	1,397,252,000	0	0	171,486,214			
District Health Services	26,180,643,000	10,660,298,000	11,965,631,000	2,169,706,413	6,467,141,000	4,226,630,800	8,855,322,000	33,684,431,214	70,525,372,214
District Health Admin.	3,901,448,000	10,660,298,000	3,417,265,000	0	0	1,704,774,714			
District Hospitals	10,079,541,000	0	5,728,673,000	974,506,733	2,904,666,000	504,371,217			
Subdistrict Services	12,199,653,000	0	2,819,693,000	1,195,199,680	3,562,475,000	2,017,484,869			
TOTAL	53,730,000,000	12,244,510,000	31,865,387,000	3,500,000,000	10,432,284,000	15,000,000,000	23,560,740,000	84,358,411,000	150,332,921,000

Assumptions:

Exchange rate (cedis/US$) 1932

GOG Exemptions are provisionally allocated with the same proportion as IGFs

IGF estimate is conservative, assuming no net effect from changes in user fee policy

Project funds estimates are based on proportions used in a 1996 estimate of donor funds expended on recurrent items

Programme funds are allocated with full flexibility each year according to the sector POW, and include direct allocations to BMCs for use in items 2-5

Ghana Health Sector Capital Budget 1997 - Combined MOH, District Assembly Common Fund, Grants and Credits with Project and Programme Funding, and Commercial Loans

Level	GOG Item 7-9	Dist Assembly Common Fund Items 7-9	Commercial Loans Items 7-9	Project Funding (Grants & Credits) Items 7-9	Programme Funding (Grants & Credits) Items 7-9	Total Capital
Headquarters	459,288,441			1,067,430,000		1,526,718,441
Tertiary Institutions	4,795,736,810		0	0		4,795,736,810
Korle Bu	2,802,837,156					2,802,837,156
Komfo Anokye	1,555,986,803					1,555,986,803
Psychiatric Hospitals	436,912,851					436,912,851
Regional Health Services	17,952,427,023		91,234,807,020	14,874,468,000	1,545,600,000	125,607,302,043
Reg. Health Admin.	57,705,471			0		57,705,471
Regional Hospitals	16,987,921,296		91,234,807,020	732,228,000		108,954,956,316
Training Institutions	906,800,256			14,142,240,000		15,049,040,256
District Health Services	8,037,547,726	6,940,000,000	14,553,756,000	13,690,049,604	3,864,000,000	47,085,353,330
District Health Admin.	589,420,167			770,868,000		1,360,288,167
District Hospitals	4,845,198,642		14,553,756,000	6,816,096,000		26,215,050,642
Subdistrict Services	2,602,928,917			6,103,085,604		8,706,014,521
Unspecified						
TOTAL	31,245,000,000	6,940,000,000	105,788,563,020	29,631,947,604	5,409,600,000	179,015,110,624

Assumptions:

Exchange rate (cedis/US$) 1932

Project funds estimates are based on intended spending on donor funds tied to signed projects

Project fund estimates are adjusted by subtracting the crude estimate of project funds used for recurrent expenditures, based on proportions estimated for 1996

Programme funding is donor funding that planned according to the broad sector budget, being fully flexible from year to year

Programme funding excludes funding to GOG general revenues which are associated with the health sector, but which is not earmarked for health use

GOG Budget adjusted by using civil works and equipment schedule, and assigning residual amounts from the budget ceiling proportionately

GHANA HEALTH SECTOR SUPPORT PROGRAM
ECONOMIC ANALYSIS

1 This Annex presents the results from the economic analysis for the Ghana Health Sector Program. The economic analysis was used as an input for the design of the overall program; selecting interventions; prioritizing resource allocations; and for evaluating and monitoring the program during the implementation. The economic analysis provides the: (a) justification of the sector program within the macroeconomic and policy framework; (b) rational for the resource allocation within the sector; and (c) assessment of financial and fiscal impact of the program. Based on the Bank's guidelines on economic analysis for the population, health and nutrition sectors[1], various analyses were conducted. Section I presents linkages of the health sector program with the overall macroeconomic framework and poverty alleviation. Section II contains the assessment of the affordability and sensitivity analysis of the availability of resources. An alternative analysis of resource allocation within the sector is presented in Section III and the cost-effectiveness of the intervention in Section IV. Section V addresses the demand for health care in Ghana.

I. Macro Economic Linkages

Macroeconomic Framework

2. As described in paragraphs 1.1 to 1.4 of the SAR, Ghana is at a critical juncture in its economic development. After eight years of fiscal adjustment and structural reform of the Economic Reform Program (ERP), the period of 1992-1996 was marked by political liberalization and macroeconomic uncertainty. Unplanned public spending, much of it election-related, has worsened the fiscal situation and inhibited private investment, resulting in high inflation. On a year-end basis, inflation rose from 10 percent in end-1992 to 71 percent in end-1995 and interest obligations rose from 1.5 percent of GDP in 1992 to 4.5 percent of GDP in 1995. The latter was due to the growth in domestic debt, and in the Bank of Ghana's open market operations, as well as the rising nominal interest rate. Since 1994, the Government has had to borrow domestically to service part of the interest bill, an unsustainable situation. Notwithstanding the large fiscal slippage, the economic out-turn in 1996 was favorable. Real GDP grew by 5.2 percent largely on account of the agricultural growth of 4 percent. Inflation fell from 71 percent at the end of 1995 to 32 percent at the end of 1996.

3. Despite it achievements, Ghana remains a poor country with a per capita GNP of $410, with a third of its population living below the poverty line. Ghana's future economic development will depend not only on good fiscal management and enhanced private sector development, but on a healthy and educated population to supply its labor force. In addition to various sectors such as agriculture, environment, and education, which directly contribute to the health status of the population, health services are needed to develop and maintain a healthy work force that contributes to a virtuous cycle of growth and prosperity. The health sector also comprises a substantial and growing part of the economy (nearly 3 percent in 1995), and consumes a sizable portion of public

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[1] Pedro Belli, *Handbook on Economic Analysis of Investment Operations* World Bank, May 1996; Alexander Preker, *Economic Analysis in Population, Health and Nutrition Sectors: A Conceptual Framework for Task Managers*. World Bank, January 1996.

expenditure (7 percent of Government non-debt expenditure in 1996). From conception to death, the health system touches everyone's life in Ghana. Strengthening the health sector is thus a central focus of the country's development vision, as stated in the Government's paper, *Ghana Vision 2020.*

Links to the Country Assistance Strategy (CAS)

4. In Ghana, the Bank's central mission is to accelerate economic growth and reduce poverty. The Country Assistance Strategy outlines four development strategies: (a) macroeconomic stabilization; (b) private investment and export; (c) broad-based social and rural development; and (d) direct poverty-alleviation measures. Development of human resources, especially of the poor and women, has been identified as a key for ensuring broad-based growth and reduce poverty. An essential message from the Ghana poverty assessment (Report No. 14504-GH) is that future economic growth and the reduction of poverty will largely depend on human capital development. Strengthening the health sector is a key, because the health sector has not effectively serviced the poor and the majority of the rural population. The proposed health sector program is a major effort by the government and the donor community to improve human capital by increasing access to and quality of health services. Hence, this operation is identified as part of the core lending program under the CAS.

5. The sector program is directly implementing the fiscal stabilization policy under the CAS in three areas: (a) streamlining investment in the health sector and reducing non-concessional borrowing; (b) improving allocation of public expenditure within the sector; and (c) increasing efficiency and effectiveness of public spending.

Rationale for Public Intervention and Finance

6. Three major concerns provide strong rationale for public involvement in the health sector: public goods; market failure; and equity. The bulk of health intervention, such as immunization, and sanitation not only benefit individuals who use these services but also the population at large. The externalities of this type of public goods provide reasoning for public finance. Imperfect information, limited access and lack of knowledge by consumers in the health field create market failure. When markets cannot regulate resource allocation efficiently, there is a powerful rational for the public intervention. From an equity perspective, it is clear that the poor, and particularly those living in deprived areas, have very limited access to health services and cannot afford to pay some of the services. The government therefore has a role to play in providing subsidies to the needy to improve the distribution of opportunities and benefits.

7. In Ghana, the private sector is underdeveloped, particularly in the health field. Lack of disposable income is a constraint to large investment by the for-profit health sector in Ghana. The mission sector is a much larger provider of services in Ghana, though the public sector maintains a dominant role in the provision of health services (see SAR para. 1.10). For the reasons given above, it is clear that the government will need to continue to play a strong role in the health sector, which the Bank supports. Nonetheless, the sector program recognizes the growing need to not only to improve public intervention, but to expand the role of the private and mission sectors in health, within a supportive and regulatory framework provided by government.

Adequacy of the Sector Policy Framework

8. Ghana began its health sector reforms in the late 1980s. Over the last four years, the government has been taking the lead in defining the sector policy framework. The vision for the future development in the health sector and the policy framework has been articulated in the Medium Term Health Strategy Towards Vision 2020 (MTHS), and given an operational description in the Program of Work (POW). The main strategies are to: (a) improve access, quality and the efficiency of primary health services; (b) strengthen and reorient secondary and tertiary service delivery to support primary health services; (c) develop and implement a program to train adequate numbers of new health teams to provide defined services; (d) improve capacity for policy development and analysis, resource allocation, performance monitoring and evaluation, and regulation of service delivery and health professionals; (e) strengthen national support systems for human resources, logistics and supplies, financial management and health information; (f) promote private sector involvement in the delivery of health services; and (g) advocate for support in intersectoral action, specifically in population, food and agriculture, social welfare, local government, education, and water and sanitation agencies.

9. The policy and operational frameworks are the product of widespread consultations, and have received the endorsement of a wide number of stakeholders, including the donor community. The framework provided is comprehensive and visionary, clearly defining sector priorities. Unlike most health policy documents, the Ghana framework provides specific resource allocation principles (see below), and outlines what changes are envisioned, and how these changes will be planned, implemented, and evaluated. The policy framework addresses issues in service provision, quality, efficiency, financing mechanisms and overall management. The framework is not a detailed blue-print, but it provide sufficient guidance and flexibility to provide a meaningful basis for implementation. Under this framework, the government maintains its leading role in health sector reform and has strong ownership of the program. The role of the Ministry of Health is clearly defined as one of policy making, financing, monitoring and regulation, while service provision is being moved out of the bureaucracy to a Ghana health service, the mission sector, and increasingly with private providers. The consolidation of multiple donor projects into a sector wide approach further reduces duplication in managing various donor-driven projects and builds local capacity in planing and managing health services. The risk of the public sector not having the capacity to run a health system has been much reduced by eliminating the fragmentation of the status quo.

II. Financial Assessment

Affordability Analysis

10. The analysis of affordability has been a central factor in determining whether the various proposals on the capital program were appropriate. The first proposal for the POW was estimated at a total cost of US$773.4 for five years with US$230.4 million for capital investment. The proposal was endorsed jointly by the government and donor Economic Appraisal Mission, in August 1996. The nature of the sector-wide investment approach requires the assessment of the total investment in the sector. This requirement urged the government to identify all the capital investment in the health sector. As a result, other capital investments outside the proposed sector program were brought forward, notably the construction of several regional hospitals. For three hospitals, contracts had been signed. Those hospitals were financed by commercial loans using supplier's credits, and at great cost. Including the additional investments, the total capital program increased to $509 million. The economic analysis indicated that in order to finance the $509 million capital program, the

government has to increase its five year capital investment from $103.4 million to $279 million or external aid has to double to fill the financial gap. Recurrent costs generated by the new capital program would consume most of the incremental recurrent budget and would leave no room for improving the quality or expanding services at existing facilities, which were clearly of higher priority. The expanded capital program distorted the overall balance of resource allocation between the level and the type of care. The economic analysis concludes that the $509 capital program was not financially affordable and sustainable.

11. The analysis was carried out to assess different scenarios of capital investment and related recurrent cost implications. The results suggest ways of restructuring the capital program in order to retain necessary investment and drop or change the unjustified investments. As a result of detailed analysis and high level dialogue and negotiations, the capital program for the POW was agreed, totaling $298 million of a total program cost estimated at $824 million.

12. A major challenge in Ghana is that of the historical under-financing of the health sector. The Ministry's share of the total Government budget has been shrinking from 8.2 percent in 1991 to 4.9 percent in 1996. Per capita expenditure on health (excluding aid) is $4.8 in 1996, lower than the spending levels in many developing countries. The key strategy under the Program is to increase the level of health financing. The initial program design required the Government increase its spending on health from 7 percent of total budget in 1997 to 11 percent in 2001, more than a 35 percent increase over 5 years. The analysis indicated that even with these increases, total government spending on health as a percentage of GDP would still stay constant at a low level (on average, 1.2 percent) and without much increase over time. After further discussion, it was agreed that the Ministry's share of the total Government budget should increase (from 5 percent in 1997 to 7.5 percent in 2001, a 50 percent increase under the sector program). The increase of recurrent budget will finance mainly for non-salary items. Government spending as a share of GDP should reach 1.4 percent in 2001. This required increase in government spending is fairly conservative, and represents a return to the 1991 level of spending. As Ghana goes through fiscal stabilization, more budgetary expenditures should be reallocated towards social development. The health sector is one of the priorities. If the fiscal turnaround can be achieved in 1998, Government spending on health could increase even faster.

13. External aid will continue to pay an important role in health financing in Ghana, a reflection of donor emphasis on investments in the social sector. Donors are estimated to provide about $40 million per annum during the medium term, which accounts for less than a quarter of the total program budget (24 percent). The government has also borrowed at commercial rates to finance some regional hospitals, which will carry over to 1998. After 1998, donor funds will replace commercial loans in financing the health sector. This decision reflects the government's effort to control non-concessional external borrowing during the period of fiscal turnaround. External aid for the health sector shares about 10 percent of the total external aid coming to Ghana during the medium term.

14. Since 1985, the government moved away from an unaffordable free health care system. Patients pay consultation fees and costs of drugs and medical examinations. Cost -recovery contributed to Internal Generated Funds (IGF) reached its highest level in 1994, about 12 percent of total MOH recurrent expenditure. The funds generated from user charges are retained at the point of collection to be used to supplement a recurrent budget. Because of concerns over equity, there will not be a significant increase in revenues from user charges. The cost of health care has already be a factor preventing the poor from using the health services. The government is revising its exemption

system to better protect the poor and other vulnerable groups. The IGF is thus not considered a major source of financing for the program, as it only contributes 6 percent of the total resource envelope. The government is exploring other financing options for greater risk pooling and efficiency. During the medium term, the insurance scheme will be tested as an option for mobilizing funds and reducing financial risk.

15. The per capita expenditure on the public health sector excluding external aid will increase by 56 percent, from a current level of $4.4 to $6.9 by the year 2001 and per capita expenditure including external aid will be about $8.5 on average during the medium term (Table 9.1).

Table 9.1 Level of Health Spending (1996-2001)

	Share of Health Expenditures (Percentage)					
	1996	1997	1998	1999	2000	2001
MOH Recurrent/GOG Recurrent	7.0%	6.9%	8.6%	9.5%	10.0%	11.0%
MOH Capital/GOG Capital	4.6%	6.7%	6.0%	5.0%	5.0%	5.0%
IGF/Total Health Expenditure	5.0%	4.9%	5.7%	6.5%	6.5%	6.1%
Health Aid/Total Health Expenditure	21%	22%	25%	27%	25%	22%
Health Aid /Total Aid	8%	10%	9%	10%	10%	10%
MOH Total/GOG Total	4.9%	5.0%	6.0%	6.7%	7.0%	7.5%
MOH Total/GDP	1.21%	1.02%	1.19%	1.25%	1.28%	1.40%
Total Health Spending /GDP	2.90%	2.46%	2.14%	1.87%	1.87%	1.94%
Health Expenditure per capita (excluding aid)	$4.83	$4.40	$5.21	$5.58	$6.02	$6.88
Health Expenditure per capita (including aid)	$10.37	$9.45	$8.51	$7.64	$8.02	$8.83

16. The proposed sector program requires about a 82 percent increase from the Government budget during the five-year period, and constrained resources flow from donors and the private sector to cover the $824 million program costs. It is financially viable and affordable under projected macroeconomic conditions.

Sensitivity Analysis

17. At the beginning of the overall planning for the five year program, the total resource envelope was estimated. The estimate is based on both the projections of the macroeconomic conditions of Ghana and on a set of assumptions on sources of financing in its health sector (updated assumptions are shown in Annex 6, replacing the assumptions used at the time of defining the POW). For the program to be financially sustainable, its scope and activities have to be guided by the resource envelope available to the health sector. Necessarily, different assumptions about the macroeconomic environment and economic growth will affect the level of resources available to the

health sector. This analysis assessed how robust the Program is to the macroeconomic assumptions, and to what extent the estimated resource envelope can be realized.

18. The following sensitivity analysis provides the estimates of resources available for the health sector under two different macroeconomic scenarios. The results indicate the confident intervals for the resource envelope of the program:

- *Low Scenario*: Ghana fails to maintain macroeconomic stability and keep inflation under control. Therefore, the Government cannot increase its spending on health - MOH's share of the total recurrent budget can only be maintained at current levels, the share of the capital budget reduced to 4 percent of the total development budget, and donor support will stay at $28 million annually instead of $40 million.

- *High Scenario*: The present level of economic growth is sustained and macroeconomic conditions are stable. The MOH's recurrent budget increases from 10 percent of total government recurrent budget to 14 percent (using a Ministerial definition of the recurrent budget), and its share of capital budget will stay at 6 percent of the total government development budget. Donor funding will increase from $40 million to $50 million.

Table 9.2 Summary of Sensitivity Analysis (Billion Cedis)

Scenario	*Low Case*					*High Case*				
	1997	*1998*	*1999*	*2000*	*2001*	*1997*	*1998*	*1999*	*2000*	*2001*
GOG										
Recurrent	109.3	120.5	133.4	148.8	166.7	*115.1*	*139.5*	*168.5*	*203.6*	***245.7***
Capital	16.4	21.2	27.9	33.7	39.1	*24.5*	*31.7*	*41.8*	*50.6*	***58.6***
IGF	10.8	11.9	13.1	14.4	15.8	*11.7*	*14.1*	*16.9*	*20.2*	***24.3***
External AID	48.5	49.7	50.9	52.1	53.3	*69.3*	*72.7*	*80.0*	*87.5*	*95.2*
Total Health Expenditure	185.0	203.2	225.3	249.1	274.9	217.1	258.0	307.2	362.0	423.7
MOH Total/GOG Total	5.3%	5.3%	5.6%	5.7%	5.8%	5.9%	6.4%	7.4%	7.9%	8.5%
MOH Total/GDP	1.05%	1.06%	1.09%	1.11%	1.13%	1.16%	1.29%	1.42%	1.55%	1.67%
Total Health/GDP	1.54%	1.53%	1.53%	1.52%	1.51%	1.81%	1.94%	2.08%	2.21%	2.32%
Per Capita Expenditure (excluding aid	$4.31	$4.59	$4.94	$5.29	$5.65	$4.77	$5.54	$6.44	$7.37	$8.38
Per Capita Expenditure (including aid)	$5.84	$6.08	$6.38	$6.69	$7.01	$6.96	$7.72	$8.70	$9.72	$10.81

19. Under the low case scenario, the total resources available for the program would amount to a total of $620 million over five years. The overall increase of per capita expenditure on health would be 16 percent rather than 40 percent as in the base case estimation. On the other hand, the high case scenario presents a rather more optimistic estimation on the level of resources available for the program: about $860 million would be available, a 68 percent increase from 1997 to 2001. The two

scenarios provide an estimated range of resources that would be available for the program as determined under different macroeconomic assumptions.

20. The analysis indicates that the basic estimation of the resources available for the health sector is sensible: the proposed increase in government financing is modest under each macroeconomic scenario. The estimation of resources from the Internal Generated Funds is conservative and expected donor support is constant at the current level.

III. Alternatives of Resource Allocation

21. The MTHS spells out the role of the health sector in improving health status versus the roles of non-health sectors. It guides resource allocation within the sector, but does not provide a rational framework analyzing alternatives between the health sector versus non-health sectors. Though Government has stated the need to raise social sector expenditures as part of its development strategy, until the planned Medium Term Expenditure Program has been articulated, there is not yet an overall framework to analyze alternatives between health sector versus non-health sectors expenditure with regard to desired outcomes, including the effects on improving the health status of the population. The alternative analysis presented in this Annex focuses on the alternatives within the health sector rather than alternatives between the health sector versus non-health sectors. This analysis aims to identify better resource allocations within the health sector in order to achieve the defined sector objectives.

Allocative Efficiency

22. The allocation of resources are determined by the policies, strategies and priorities outlined in the MTHS and POW. In the medium term, the resource allocation will address issues related to access, under-funding, efficiency, and quality of service. There are four guiding principles for resources allocation within the sector: (a) making more resources available for the attainment of universal access to primary health services and to shift the emphasis increasingly to the primary level; (b) increasing the share of non-wage items in the total recurrent budget; (c) achieving a better balance between development and recurrent budgets; and, (d) realigning existing inequalities in regional allocations. Allocative efficiency will be evaluated against the above principles.

Capital Program 1997-2001

23. The capital budget under the program accounts for about 37 percent of the total budget. Allocation of the capital budget deflects the priority of strengthening primary health care. Sixty-five percent of capital budget will finance the construction and renovation of primary and secondary level facilities. To change the present inequitable geographical distribution of health facilities, the capital investment will be shifted towards disadvantaged areas. Table 9.3 presents the five-year Capital Program. In the medium term, there will be no dramatic increase in capital investment. Hence, the capital budget for the health sector, as a share of government development budget will remain almost constant at about 5 percent.

Table 9.3. The Capital Investment Program
(in US$)

LEVEL	FACILITY TYPE	CONST TYPE	NUMBER	TOTAL COST	SPEND 1996	COST 1997-2001
DISTRICT	Health Centers	New	126	16,951,583	4,461,375	12,490,208
		Rehabilitation	250	10,409,000		10,409,000
	Hospitals	New	2	7,767,998	923,600	6,844,398
		Upgrade HC	11	13,920,841	1,213,360	12,707,481
		Rehabilitation	28	68,907,440	352,848	68,554,592
	DHMT Offices	New	40	4,597,340	886,248	3,711,092
						114,716,771
REGION	Hospitals	New	3	137,500,000	60,477,500	77,022,500
		Major Rehab	2	33,906,406		33,906,406
		Rehabilitation	5	18,713,152	3,353,856	15,359,296
	Psych Wings	New	3	1,608,000		1,608,000
	Special Clinics	New/Rehab	28	1,615,800		1,615,800
	RHMT Offices	Major Rehab	2	675,675		675,675
		Rehabilitation	8	810,810	64,865	745,945
	Training Institutes	Rehabilitation	23	16,090,000	2,330,000	13,760,000
	Medical Stores	New/Rehab	9	530,000		530,000
						145,223,622
TERTIARY	Korle Bu TH	Rehabilitation	1	10,479,312		10,479,312
	Konfo Anokye TH	New/Rehab	1	5,456,280		5,456,280
	Pantang	Rehabilitation	1	10,523,011		10,523,011
	Ankaful	Rehabilitation	1	7,868,800		7,868,800
	Dept Psychiatry	New	1	1,559,575		1,559,575
						35,886,978
NATIONAL	Equip Workshop	New	1	140,000	87,500	52,500
	IECRS Res Centre	Rehabilitation	1	180,000		180,000
	GHS	New	1	1,955,250		1,955,250
	MOH HQ	Rehabilitation	1	234,630		234,630
						2,422,380
TOTAL			**549**	**372,400,903**	**74,151,152**	**298,249,751**

Recurrent Cost Implications of the Capital Investment

24. Recurrent cost implications and affordability are the main factors in determining alternatives for the capital investment. The recurrent budget has to cover firstly the present level of recurrent cost; secondly, to anticipate the also additional recurrent costs of new investments; and, thirdly, to strengthen the operating expenditure of existing facilities. Incremental recurrent costs of various capital programs were calculated based on the cost model which takes into account of salary, non-salary recurrent costs and income generated from cost-recovery and possible savings from closing or

reducing capacity of the old facilities. The final capital program will require $8.7 million recurrent budget per year to operate. The estimated resource envelope indicates the GOG incremental annual recurrent budget is about $52 million in five years, which is sufficient to cover the incremental recurrent costs for the capital program (Table 9.4), and to allow for increased recurrent expenditure at the district level.

Table 9.4 Incremental Recurrent Costs (1996 Million Cedis)

	No. of Staff	Salary	Non Salary	Sub-Total	Income	Total
Hospitals & Other Developments	2,422	5,929.5	11,156.6	17,086.1	-1,115.0	15,971.1
New Health Centers Less Costs of Renovating the Existing Centers	1,035	1,929.7	2,305.0	4,234.7	0	4,234.7
Sub-Total	3,457	7,859.2	13,461.6	21,320.8	-1,115.0	20,205.8
Total Net Cost Savings on Closed or Reduced Capacity Facilities	-821	-1,817.0	-4,212.1	-6,029.1	610.5	-5,418.6
Net Additional Cost	**2,637**	**6,042.2**	**9,249.5**	**15,291.7**	**-504.5**	**14,787.2**
US$ Equivalent (Millions)		**3.6**	**5.4**	**9.0**	**-0.3**	**8.7**

Capital/Recurrent Budget Allocation

25. Table 9.5 presents the share between capital and recurrent budget allocation. The program intends to increase allocation of recurrent costs to ensure sufficient funds for service delivery. Capital investment is up-frond loaded in first two years of the program, where as recurrent budget gradually increases. Recurrent budget as a share of total budget increases from 46 percent to 73 percent.

Table 9.5 Development and Recurrent Budget Allocation (in Billion Cedis)

	1997	1998	1999	2000	2001	Total 1997-2001
MOH Recurrent Budget	100.8	140.0	170.2	197.6	240.0	848.6
Item 1	53.7	61.2	68.2	75.4	83.7	342.2
Item 2-5	34.9	64.9	86.4	105.0	137.3	428.5
Item 6 (Budget - Subvention)	12.2	13.9	15.5	17.2	19.1	77.9
External Aid Recurrent	37.7	52.3	26.4	28.2	38.2	182.8
IGF	16.5	19.0	21.1	23.2	25.5	105.3
Total Recurrent Budget	155.5	211.3	217.7	249.0	303.7	1136.7
MOH Capital Budget	38.2	44.2	46.3	48.6	59.0	236.3
External Aid Capital	35.0	30.4	61.3	61.4	53.4	241.5
Commercial Loans	105.9	45.9				151.8
Total Capital Budget	179.1	120.5	107.6	109.9	112.4	629.5
Total Health Expenditure	334.0	331.8	325.3	358.9	416.2	1766.2
Recurrent/Capital Ratio	0.9	1.8	2.0	2.3	2.7	1.8
Recurrent/Total Health Budget	0.5	0.6	0.7	0.7	0.7	0.6

Resource Allocation by Level and Item

26. To achieve the sector goal of improving access, quality and efficiency of primary services in the medium-term, resources have to be shifted from tertiary care to primary health care. This shift has already begun and should continue during the medium term. The program intends increasingly channel greater government and donor funds to the district level, thereby permitting district management teams to control more resources. This should enable improvements in quality and coverage at the level of services closest to the population. Other levels of facilities will continue to receive support from public funds, but on a reduced proportionate basis. Cost sharing is also expected to increase for the use of tertiary care services, while basic health services will draw on an increasing share of public funds for operations.

Resource 'Shifts'

Wages and Salaries

27. Within recurrent budgets, the program intends to alter the balance towards non-wage expenditures. In the next five years, real wage increase assumes as the same rate of the GDP growth, which is consistent with the assumption for the overall wage increase (Table 9.6. Under this assumption, the share of wages in the total MOH recurrent budget falls from the present level of 53 percent to 35 percent by the year 2001. As a share of total Government wages and wage-related expenditures, it maintains the same level of 7.5 percent.

28. Even without a significant increase in the total wage bill, internal adjustments in wages can be made to provide incentives for encouraging efficiency and quality of services. With the establishment of the Ghana Health Service, for instance, the public health sector would have more autonomy in structuring an appropriate incentive system to concurrently deliver efficient and high quality services.

Table 9.6 Health Sector Wage Budget Allocation
(Budget Item 1- Wages)

Level	1996	1997	1998	1999	2000	2001
MOH Wage Budget (bn.cedis)	57.5	53.7	61.2	68.2	75.4	83.7
MOH Wage/GOG Wage	9.6%	7.5%	7.5%	7.6%	7.6%	7.5%
MOH Wage/MOH Recurrent	58.3%	53.3%	43.7%	40.1%	38.2%	34.9%
Wage/Total Recurrent Budget	37.7%	34.7%	29.0%	31.3%	30.3%	27.6%

Assumption: Wage increase by the rate of CPI and GDP growth

29. With the capital investment increasingly towards at district and subdistrict levels, staff requirement and related wage bill would expected to increase under the implementation of the program. Table 9.7 presents the intention of wage bill shift in next five years. More than half of staffing costs are allocated at district level and below.

Table 9.7 Wage Allocations by Level

Level	1997	1998	1999	2000	2001	Total '97-01
			(in US$ Million)			
Headquarters	2.4	2.6	2.7	2.9	3.2	13.8
Tertiary Institution	6.8	7.2	7.6	8.2	8.9	38.6
Regional Health Services	5.8	6.2	6.5	7.0	7.6	33.1
District Health Services	18.5	19.7	20.7	22.4	24.4	105.7
District Administration	3.5	3.7	3.9	4.3	4.6	20.0
District Hospitals	7.2	7.7	8.1	8.7	9.5	41.2
Health Centers	7.8	8.3	8.7	9.5	10.3	44.6
Total	33.5	35.6	37.5	40.6	44.1	191.2

Sensitivity Analysis of Wage Changes

30. As the public sector in Ghana is going through the Civil Services Reform, it may result in pay structure changes. In addition, the establishment of Ghana Health Service could also lead a substantial increase of wage bills. Sensitivity analysis was carried out to assess the possible impact of a wage shock in a short run. Table 9.8 presents the results of two scenarios of wage increases in 1998 and the impact on resource allocation.

Table 9.8 Sensitivity Analysis on Wage Changes

Level	1996	1997	1998	1999	2000	2001
Scenario One -- Wage increase by 10% in 1998						
MOH Wage Budget (bn.cedis)	57.5	53.7	63.6	70.9	78.4	87.0
MOH Wage/GOG Wage	9.6%	7.5%	7.8%	7.9%	7.9%	7.8%
MOH Wage/MOH Recurrent	58.3%	53.3%	45.4%	41.7%	39.7%	36.2%
Wage/Total Recurrent Budget	37.7%	34.7%	30.1%	32.6%	31.5%	28.6%
Scenario Two -- Wage Increase by 20% in 1998						
MOH Wage Budget (bn.cedis)	57.5	53.7	69.0	76.9	85.0	94.4
MOH Wage/GOG Wage	9.6%	7.5%	8.5%	8.6%	8.5%	8.5%
MOH Wage/MOH Recurrent	58.3%	53.3%	49.3%	45.2%	43.0%	39.3%
Wage/Total Recurrent Budget	37.7%	34.7%	32.6%	35.3%	34.1%	31.1%

Assumption: Wage increase by the rate of CPI and GDP growth from 1990 to 2001

31. Based on the principles for resource allocation (para. 22), more funds will allocate to recurrent budget and non-wage items within the recurrent budget. Even with hypothesised wage shock, the share of wage as percentage of total recurrent budget continues to decrease.

Non-wage Expenditure

32. Recurrent spending on health has fallen from 11 percent in 1991 to 7 percent in 1996. When the recurrent budget was cut, it was the non-wage items that often suffered most. Also, at the district level, wage and wage-related expenditure usually account for more than 80 percent of total recurrent budget, leaving very little for non-wage items. As a result, one often sees that health centers and district hospitals have few drugs and supplies. Under the POW, government intends to restore the recurrent spending back to the early 1990s level; it also intends to achieve a better balance within the recurrent allocation. Table 9.9 shows the intended non-wage recurrent budget allocation under the program. Over the next five years, the government plans to reduce its non-wage budget at the central level from about 25 percent to 14 percent, and to increase its non-wage allocation to the district level from 37 percent to 42 percent. This shift will allow district health services to have control over more resources and more resources available for non-staff items to improve the service delivery.

Regional Allocations

33. Resource allocation within the Ministry has been an issue of concern to all regions. Until 1995, it had followed an annual incremental budgeting approach. In 1995, the Ministry moved from issuing budget ceilings by items to giving regions bulk ceilings, leaving the regions to set their priority at the sub-item level. The budget Unit of the Ministry intends setting ceilings by BMCs for each region, which calls for a rational approach in resource allocation criteria.

Table 9.9 Health Sector Non-Wage Recurrent Budget Allocation
(Budget Items 2-5, in US$ Million)

Level	1997	1998	1999	2000	2001	Total '97-01
Headquarters	11.6	10.3	8.8	9.6	12.4	52.7
Tertiary Institution	9.8	15.3	14.1	15.7	19.0	74.0
Regional Health Services	8.3	15.4	14.1	15.9	19.9	73.6
District Health Services	17.5	25.5	24.7	29.4	37.4	134.5
District Health Admin.	3.9	6.4	6.0	7.2	9.3	32.8
District Hospitals	9.5	12.1	11.9	13.8	17.4	64.7
Health Centers	4.0	7.0	6.8	8.4	10.6	36.8
Total	47.2	66.5	61.7	70.6	88.7	334.7
Budget Distribution in Percentages						
Headquarters	25%	15%	14%	14%	14%	16%
Tertiary Institutions	21%	23%	23%	22%	21%	22%
Regional Health Services	18%	23%	23%	22%	22%	22%
District Health Services	37%	38%	40%	42%	42%	40%
District Administration	8%	10%	10%	10%	11%	10%
District Hospitals	20%	18%	19%	20%	20%	19%
Health Centers	9%	11%	11%	12%	12%	11%

34. The current focus within the Ministry on resource allocation aims to provide transparency in resource allocation, to show the logic behind the allocation of resources, and to correct existing inequities in current resource allocation. It is important to note that the MOH's budget and expenditures presently do not well capture the geographical distribution of donor assistance and of internally generated funds, and will need to be factored into the analysis to inform the Ministry's future policies and budget allocations. The prospect of broad and rational resource allocation becomes real within the framework of the MTHS, particularly as common planning and budgeting arrangements and mechanisms for disbursement and reporting are implemented. The capital program was developed based on the assessment of existing facilities and population coverage, and included mission and private facilities. The northern part of country have larger shares of the capital investment to correct regional biases.

IV. Cost-Effectiveness Analysis

35. Under the MTHS, the government has committed itself to finance a package of health services to all the population. A list of priority health service interventions was strongly influenced by strategic priorities and cost-effectiveness information. Using the analysis of disease burden and cost-effectiveness, a basic package of health interventions was defined.

36. The preliminary analysis on cost-effectiveness was carried out jointly by the Ministry of Health and the Bank. A rapid assessment was used to identify the cost-effectiveness of a manageable number of interventions rather than conducting a comprehensive exercise on national burden of disease. The main rationale of using the rapid assessment is that the burden of disease is already known to a certain extent in Ghana. The assessment focuses on the burden of targeted diseases and estimates cost-effectiveness of the related interventions. A list of interventions was analyzed according to level of delivery, mainly outreach, first level (health stations) and second level (hospitals).[2] The interventions chosen in the basic package as cost-effective are consistent with the cost-effective interventions identified in the *World Development Report* 1993 and *Better Health in Africa.*

V. Demand-side Analysis

37. Demand-side analysis assesses people's health care seeking behavior and access to and utilization of health services in Ghana. The sector program aims to improve health status of the population, so to only improve the supply of health services will not achieve the sector objectives. Since Ghana has a low rate of health service utilization, building health facilities alone will not necessarily improve health outcomes. This analysis provides a snap-shot on the current picture of health care seeking behavior and addresses the issues related to key determinants of using health services by various population groups. The result of the analysis guides the investment decisions and selection of interventions. The analysis is based on several household surveys done in recent years, mainly the Ghana Living Standards Surveys (GLSS), Demographic and Health Surveys, and the 1994 Situation Analysis Study.

Access to Health Services

How far are the health providers and facilities from population?

38. For the majority of rural Ghanaians, physical access to health facilities is limited. Data from the GLSS show that only 3 percent of the population has access to a medical doctor within the community (see Table 9.10). More than 50 percent of the population has to travel for more than one hour to see a doctor. About 60 percent of the population has to travel for more than ten miles to reach a hospital or a pharmacy. On the other hand, traditional healers and traditional birth attendants are widely available. More than 80 percent of the population has these traditional health care providers in their communities.

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[2] Detail information is presented in the paper "Ghana Cost-Effectiveness Exercise Methodology" by Dr. Asamoa-Baah, Dr. Brown, Dr. Jose-Luis Bobadilla and Dr. Cowley.

Table 9.11 Availability of Health Personnel and Health Facility in Rural Ghana

A. Travel Time to the Nearest Health Personnel/Facility:

Health Personnel/Facility	*Percentage Frequency Distribution (rows add up to 100)*				
	Within the community	*0-1 hour*	*1-2 hours*	*2-3 hours*	*3 or more hours*
Health Care Provider					
Doctor	3	41	20	15	20
Pharmacist	4	42	24	14	17
Nurse	20	47	17	8	8
Trained Midwife	22	46	17	8	6
FP Worker	18	46	18	10	7
Community Health Worker	20	47	18	9	6
TBA	83	10	2	3	1
Traditional Healer	82	10	3	3	2
Health Facility					
Hospital	2	40	22	17	20
Pharmacy	4	40	24	14	18
Dispensary	12	42	22	11	13
Maternity Home	19	42	17	10	12
Clinic/Health Post	25	46	15	8	5
FP Clinic	17	46	18	9	9

B. Distance to the Nearest Health Personnel/Facility (in miles):

Health Personnel/Facility	*Percentage Frequency Distribution (rows add up to 100)*				
	<1 mile	*1-9*	*10-19*	*20-29*	*30+*
Health Care Provider					
Doctor	3	36	31	12	18
Pharmacist	4	36	31	13	16
Nurse	20	58	14	4	4
Trained Midwife	22	55	16	3	3
FP Worker	18	55	20	4	3
Community Health Worker	20	57	18	3	2
TBA	84	11	4	1	1
Traditional Healer	82	15	2	1	1
Health Facility					
Hospital	2	35	30	13	20
Pharmacy	4	37	30	13	16
Dispensary	12	49	24	6	9
Maternity Home	19	50	20	5	6
Clinic/Health Post	25	56	15	2	2
FP Clinic	17	56	19	4	4

Source: GLSS 1991/92

39. Modern health facilities and health personnel are unevenly distributed, being largely concentrated in the Coastal and Forest areas. On average, people living in Savannah have to travel for more than twenty miles to the nearest hospital or a dispensary (see Table 9.12).

Table 9.12 Distance to the Nearest Health Personnel/Facility by Ecological Zone

	Average Distance (in miles)		
Health Personnel/Facility	*Coastal*	*Forest*	*Savannah*
Health Care Provider			
Doctor	14.9	14.9	23.9
Pharmacist	13.8	16.0	23.1
Nurse	4.8	7.7	8.3
Trained Midwife	5.1	6.9	8.6
FP Worker	6.1	7.1	7.9
Community Health Worker	5.4	6.7	7.9
TBA	0.6	1.6	3.0
Traditional Healer	0.8	2.1	0.9
Health Facility			
Hospital	16.1	15.5	24.9
Pharmacy	7.9	11.2	16.7
Dispensary	14.2	15.0	23.6
Maternity Home	5.6	7.0	15.1
Clinic/Health Post	4.4	6.2	6.9
FP Clinic	5.9	7.4	10.6

Source: GLSS 1991/92

Utilization of Health Services

Who uses health services?

40. Availability of health services is only one of the many factors that determine the use of health services. Other factors such as severity of illness, income, education levels, and the cost of the services also influence people's decision to seek health care in important ways. Table 9.13 shows the pattern of reported illness and health care seeking behavior (among those who reported ill) by locality, levels of education, sex and poverty status[3]. There is no clear pattern in the proportion of people who report illness or injury across regions. However, there are significant regional variations in proportion of people who seek health care. People living in the Coastal and Forest areas are more likely to use health services than people in Savannah. The poor are less likely to report their health problems and also less likely to seek health care[4]. Women are more likely to report health problems as well as use the services. Education level has a strong effect on people's decision to seek heath care. Educated people are more likely to use the services.

[3] Self-reporting illness is not a reliable measurement of incidence of illness since it subject to bias from personal judgment. As most surveys show that the poor or less educated would tend to report fewer illness.

[4] Consumption quintiles in Table 4 indicate the poverty status, where quintile I is the poorest.

Table 9.13 Distribution of Reported Illness or Injury and Health Seeking Behavior in Ghana 1991-92.

Characteristics	*% Reported Health Problem*	*% Sought Treatment*	
		Sick[5]	All
Region			
Western	25.4	49.9	12.7
Central	21.6	61.1	13.2
Greater Accra	18.2	57.2	10.4
Volta	16.7	64.7	10.8
Eastern	32.1	28.6	9.2
Ashanti	23.8	49.3	11.7
Brong-Ahafo	24.3	59.4	14.4
Northern	20.2	34.4	6.9
Upper West	18.9	33.3	6.3
Upper East	14.5	36.6	5.3
Consumption Quintile			
I	16.3	41.8	6.8
II	18.7	44.4	8.3
III	22.8	47.6	10.9
IV	23.1	50.4	11.6
V	28.8	57.1	16.4
Sex			
Male	21.5	47.4	10.2
Female	22.5	50.8	11.4
Education Level			
No Education	23.3	42.7	9.9
Some Primary	17.5	47.3	8.3
Completed Primary	19.6	45.7	9.0
Middle	23.1	53.9	12.5
Higher	19.4	63.3	12.3
All	22.0	49.2	10.8

Source: GLSS 1987/88, 1988/89 and 1991/92

41. Tables 9.14 and 9.15 present information about what types of health facilities people visit for health care and what type of health providers they consult, respectively. Hospitals, dispensaries and clinics are the most frequently visited health facilities for health care, while major health care providers are doctors and medical assistants. It is somewhat surprising that according to the reported responses, the role of traditional healers in providing health care is only marginal. More than 80 percent of the rural communities have a traditional healers but only 13 percent of the people who sought any health care actually used their services. However, there is an increasing trend of using their services from 1987 to 1992. The uses of clinics have declined while there is an increase in using maternity homes and MCH clinics. Increase in the use of pharmacies and pharmacists suggests that there is an increasing trend in self medication.

[5] Of those who reported a health problem or injury, or both in the two weeks preceding the survey.

Table 9.14 Type of health facility used by people in Ghana, 1987-91.

	Percentage Distribution		
Facility used	*1991/92*	*1988/89*	*1987/88*
Hospital/ Dispensary	38.9	35.5	42.8
Pharmacy	5.8	2.4	2.5
Clinic	38.7	49.2	42.3
Maternity home/MCH	4.5	1.7	1.2
Consultants home	7.0	5.4	5.4
Sick persons home	3.4	3.3	4.7
Other	1.5	2.6	1.1

Source: GLSS 1987/88, 1988/89 and 1991/92

Table 9.15. Type of health personnel consulted by people in Ghana, 1987-91.

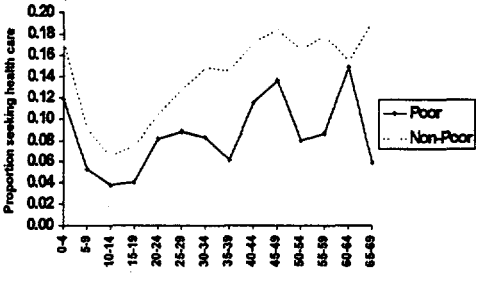
	Percentage Distribution		
Health personnel	*1991/92*	*1988/89*	*1987/88*
Trad. Healer	13.1	7.6	6.7
Doctor	50.5	48.0	53.7
Nurse	9.6	12.0	9.6
Medical assist.	15.7	26.1	23.5
Mid-wife	4.4	3.4	1.6
Pharmacist	6.5	2.8	3.9
Other	1.8	2.2	1.1

Source: GLSS 1987/88, 1988/89 and 1991/92

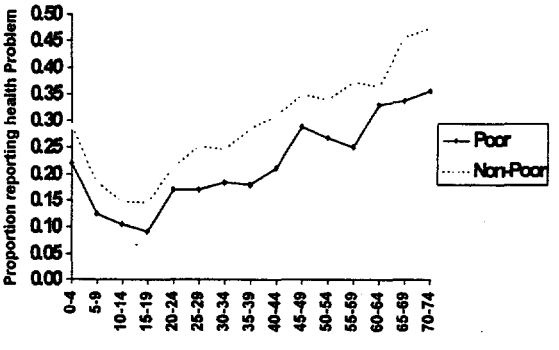
42. Morbidity is closely associated with age. Figure 1 illustrates a general pattern of reported illness by age and poverty status. Children and the elderly are more likely to get sick, therefore demand for health care vary by age.

Figure 1. Self-Reporting Illness and Seeking for Treatment by Age and Poverty Status

Reported Illness by Poverty Status



Health Seeking Behavior by Poverty Status



43. Data from the 1993 DHS (Table 9.16) suggest that most parents do not use curative services for their children for the most episodes of illness. Among the children who were reported to have fever within two weeks preceding the survey, less than half of them were taken to any health facilities or health providers, the percentage of children with symptom of diarrhea taken for treatment was even less (24%). Children in Northern region were less likely to visit health facilities when they had fever or diarrhea as compared with children in the other regions.

Table 9.16. Utilization of Curative Services by Children Under Three Years of Age

Symptom in two weeks preceding the survey	*Fever*		*Cough with rapid breathing*		*Diarrhea*	
	% with symptom	*% taken to health facility/ provider*	*% with symptom*	*% taken to health facility/ provider*	*% with symptom*	*% taken to health facility/ provider*
Western	28.1	44.2	6.5	25.0	20.5	18.4
Central	15.9	45.5	4.3	44.4	17.4	30.6
Greater Accra	16.2	50.0	9.7	72.2	16.2	30.0
Volta	48.0	29.0	14.3	28.1	20.2	8.9
Eastern	28.5	63.5	5.4	50.0	13.6	30.0
Ashanti	17.8	56.1	8.6	37.5	16.8	29.0
Brong-Ahafo	18.6	56.8	9.0	38.9	19.1	39.5
Northern	39.8	23.3	15.9	27.8	37.6	12.9
Upper West	23.9	52.9	7.0	40.0	14.1	**
Upper East	49.6	57.4	22.6	48.8	26.3	36.1
Total	27.8	44.6	10.1	39.5	20.3	24.1

Source: GDHS 1993

44. Women are expected to extensively use health services due to their unique reproductive health needs. Utilization of modern health facilities for deliveries is relatively low in Ghana. Again, Northern region stands out for the low levels of utilization of prenatal care and of health facilities for delivery. Women from poor households and with lower level of education use less prenatal care services.

Costs of Using Health Services

45. Since 1985, all Government health facilities have charged users for treatment and medicines. On average, households spend 3 percent of their budget on health care. Among direct costs of health care services, medicine is the major item, accounting for 66 percent of the total costs. In addition, there are some indirect costs in utilizing health services, mostly by way of travel costs for visiting health facilities.

Table 9.17. Utilization of Reproductive Health Services

Region	*Given TT immunization*	*Given prenatal care*	*Used health facility for delivery*	*Delivery supervised by*	
				Health personnel	*Trained TBA*
Western	79.9	89.2	36.3	39.8	27.9
Central	79.5	86.7	34.8	37.5	29.0
Greater Accra	88.3	96.4	79.6	80.1	4.6
Volta	69.2	87.2	33.3	34.2	13.7
Eastern	81.0	94.1	55.3	55.2	13.9
Ashanti	79.8	91.8	53.2	55.7	12.0
Brong-Ahafo	81.8	90.4	53.6	55.5	12.4
Northern	57.1	67.8	14.6	15.8	13.4
Upper West	66.3	74.0	22.1	22.1	16.9
Upper East	81.0	85.9	16.9	19	11.3
Total	76.7	87.2	42.2	43.8	15.3

Source: GDHS 1993

Table 9.18. Prenatal Care Coverage: 1991-92

Characteristics	*% Received Prenatal Care*
Region	
Western	81.7
Central	77.8
Greater Accra	80.9
Eastern	70.4
Volta	70.1
Ashanti	84.0
Brong-Ahafo	82.8
Northern	44.2
Upper West	65.8
Upper East	42.3
Consumption Quintiles	
I	66.0
II	70.9
III	76.0
IV	74.8
V	78.2
Education Level	
No Education	60.6
Some Primary	77.8
Completed Primary	87.3
Middle	86.4
Higher	78.8
All	73.3

Source: GLSS 1991/92

Table 9.19. Expenditure on Health Care by Consumption Level in 1992

Consumption Quintile	*Consultation Fees per Visit*	*Travel Cost per Visit*	*Medicine Costs in Last Two Weeks*	*Inpatient Costs*	*Annual per capita Expenditure on Health*	*Percentage of Share as Total Expenditure*
I	*543.5*	*130.1*	*1333.5*	*4492.9*	3278.2	4.0%
II	*630.5*	*187.4*	*1491.2*	*5030.6*	4346.6	3.4%
III	*569.6*	*273.8*	*1605.6*	*2989.6*	6160.3	3.7%
IV	*481.6*	*237.0*	*2187.0*	*6512.0*	8208.3	2.5%
V	*502.3*	*247.5*	*2367.0*	*5815.5*	12270.5	2.7%
Total	*535.7*	*226.9*	*1926.0*	*5060.5*	6853.4	3.3%

Table 9.20. Per Capita Household Expenditures on Health in Selected Africa Countries

Household Quintile	*Ghana 1987/88*	*Ghana 1991/92*	*Cote d'Ivoire 1985*	*Guinea Bissau 1991*	*Nigeria 1985-86*	*Senegal 1991-92*
I	*7.98*	*7.6*	*3.99*	*2.44*	*2.58*	*4.90*
II	*14.23*	*10.0*	*6.59*	*3.88*	*5.88*	*10.27*
III	*13.93*	*14.1*	*14.33*	*4.38*	*10.07*	*13.44*
VI	*18.29*	*18.8*	*17.04*	*4.63*	*14.08*	*25.34*
V	*24.50*	*28.1*	*46.38*	*8.34*	*35.16*	*61.82*
Average	*16.06*	*15.7*	*18.88*	*4.74*	*15.05*	*23.14*
Per Capita Income	*455.8*	*479.81*	*911.31*	*196.00*	*400:00*	*393.00*
Average as Share of Per Capita Income (%)	*3.5*	*3.3*	*2.1*	*2.4*	*3.8*	*5.9*

Note: a. Household Expenditure includes traditional and modern health services and medicines.
Ghana figures are based on per capita expenditure
Source: World Bank (1993)

What are the implications of health spending to different households?

46. People in Ghana, including the poor, spend a sizable amount of their budget on health care. Although, the poor spend less on health in absolute terms, their expenditure account for a greater proportion of total budget. As expected, average consultation fees per visit are higher in private health facilities than in public facilities. Despite their cost, the use of privately provided services has increased over time. The reasons for declining the use of services provided by the public sector is not clear, but to large extent, may have to do with the quality of services. This result may indicate that people are willing to pay high prices for better services.

Demand Function for Health Care

47. A demand function was constructed to estimate determinates of using health care (Table 9.22). Among those with a reported illness, the dependent variable was defined as whether sought medical care in the two weeks prior to the survey.

Table 9.21. Use of health services by type of facility and consultation fees per visit in Ghana, 1987-91 (user fees in nominal cedis)

	1987/88		*1988/89*		*1991/92*	
Type of facility	*Percentage of the visits*	*average consultation fees per visit*	*Percentage of the visits*	*average consultation fees per visit*	*Percentage of the visits*	*average consultation fees per visit*
Public	60%	108.2	55%	109.3	51%	437.5
Private	40%	151.4	45%	113.4	49%	634.7
Total (n)	2273	125.5	2408	114.7	2290	533.2

Source: GLSS 1987/88,1988/89, 1991/92.

Table 9. 22. Demand for Health Care

	Adults (age >14)		*Children (age<15)*	
Explanatory Variables	*Coefficient*	*z-value*	*Coefficient*	*z-value*
Availability of Services				
Availability of clinic	0.365722	4.01		
Availability of hospital	0.097844	0.364		
Availability of Nurse			0.353055	2.335
Household Characteristics				
Per capita consumption	0.017897	3.869	0.044674	2.762
Per capita consumption squared	-7.2E-05	-2.177	-0.00039	-1.489
Sex of HH head	0.347996	3.007	-0.45087	-0.431
HH size	0.025746	1.677		
Number of Children in HH			0.014392	0.431
Father's education			0.142342	0.957
Mother's education			0.194034	1.218
Region				
Dummy for Rural Forest	-0.04584	-0.439	-0.14336	-0.857
Dummy for Rural Forest	-0.34881	-2.831	-0.60508	-3.265
Individual Characteristics				
Some Primary	0.294206	2.025		
Completed Primary	-0.09465	-0.645		
Middle	0.210651	1.702		
Higher	-0.07333	-0.328		
Ever married	0.076819	0.629		
Never married	-0.69725	-5.012		
Age	0.004103	1.296	-0.11701	-6.882
Sex	0.009077	0.091	-0.14925	-1.191
Constant	-3.05154	-9.828	-1.69055	-1.529
N	5999		3411	

48. The results from the analysis of the function of demand for health services indicate that the seriousness of illness, user fees, household size and schooling of the individual determines whether the person will seek for care. The probability of seeking treatment increases with the level of education. The use of health services is lower if the person belongs to a large family. The probability of choosing a facility depends on the cost of using services, the person's income, and the distance traveled to get public transportation. The policy implications are: (a) reducing the distance traveled to get public transportation will raise the usage of hospital facilities, as will as reducing the costs of services; (b) as income grows overtime, more Ghanaians will seek medical treatment, so that proportionately more health services will be needed as incomes rise; and (c) increasing the education of individuals will increase the use of health services.

CONCLUSION

49. Although the economic analysis indicated that the initial design of the capital program was not consistent with the sector priorities and would not be sustainable given the available resources and implementation constraints, it has helped to re-shape the program. The analysis of the revised program has provided the justification for increasing resources to health, shifting resources from tertiary care to primary care and to non-wage expenditures, and for continued donor funding, particularly as the program provides more support at the district level. It also highlighted the need to better guide private health provision and financing in the sector toward POW objectives. Key elements of the economic analysis have been incorporated into the ongoing assessment of new capital projects. The final appraisal indicates that the POW is affordable, cost-effective, and consistent with the stated sector objectives and priorities for the medium term.

50. The economic analysis also provides a base for selecting indicators to monitor and evaluate of the program. Economic analysis will continue to be carried out during the implementation of the program to guide the planning, monitoring and evaluation.

GHANA HEALTH SECTOR PROGRAM OF WORK
INDICATORS FOR MONITORING SECTOR PERFORMANCE

Indicator	Baseline Level (1996)	How Measured
1. % of GOG budget spent on health	4.9% of total GOG 7.0% of recurrent GOG, excluding debt	MOH Expenditure Reports
2. Recurrent (wage and non-wage) and capital expenditure by level, and by source of financing	Recurrent expenditure: HQ: 17% Tertiary: 24% Regions: 17% Districts: 42% (see Annex 5 for details)	MOH Expenditure Reports
3. % of Budget and Management Centers (BMCs) with 1998 budgets and plans following an agreed format where all sources of funding are used to link budgets and activities	95% of those reporting (81%) have budget & plans for GOG only	Regional Quarterly Reports to HQ
4. Contracts for mission hospitals, NGOs, and private service providers developed for 1998 use	Not yet started	MOH Report
5. % of BMC's with timely quarterly income and expenditure returns (within 3 months) on all sources of financing (GOG, IGF, and common funds)	63%	MOH Quarterly District and Regional Reports
6. Agreement on a single set of procurement procedures, thresholds, bidding documents, evaluation criteria, and contracts, covering civil works, goods, and technical assistance	Bidding document only developed	Report
7. Completion of staffing establishments for BMCs	Establishments for technical staff only completed	Report
8. % of districts with timely (within 3 months) Communicable Disease Surveillance Reports	70% (estimated)	MOH Quarterly District and Regional Reports
9. % of district, regional, and teaching hospitals that undertake and report on patient satisfaction surveys in the last quarter	Teaching hospitals: 0% Regional hospitals: 22% District hospitals: 13% (2 Regions only)	MOH Quarterly Reports
10. Outpatient visits per capita, per staff, and by sex	0.39 per capita nationally (17.8 million pop.)	MOH Quarterly Reports
11. Hospital admissions, average bed occupancy and length of stay for district, regional, and teaching hospitals	Total adm.: 567,065 Bed occupancy: 70% (nationally) ALOS: NA	Quarterly Reports
12. DPT3 & OPV3 coverage for 1 year olds	DPT3: 49.6% OPV3: 49.0%	Quarterly District and Regional Reports
13. Couple-years of contraceptive protection	251,762 CYP	UNFPA Report

Indicator	Baseline Level (1996)	How Measured
14. % of children using bednets	< 1% (estimated from 1995)	Sample Household Survey
15. % of households using iodized salt	0.3% (1995)	Sample Household Survey
16. % drugs from an indicator list of drugs in stock at all times in the last quarter	NA (80% at CMS)	Sample Survey of Facilities
17. Medical Equipment Performance Index at hospitals (precise definition required)	60%	Sample Survey of Hospitals
18. Average cost per in-patient day at district, regional and tertiary hospitals	District: C1500 Region: C2000 Tertiary: C3000 (Hotel costs only)	Quarterly District and Regional Reports; Expenditure Reports
19. Amount of funds spent on exemptions by exemption category	C827,000,000 (vote for paupers and psychiatric patients only)	Quarterly District and Regional Reports
20. Number of outreach clinics per subdistrict, by Region	Greater Accra: 9 Brong Ahafo: 6 Central: 10 Eastern: 8 Ashanti: 5 Northern: 11 Upper East: 5 Upper West: 8 Western: 6 National Ave: 7	Quarterly District and Regional Reports

GHANA HEALTH SECTOR SUPPORT PROGRAM
Planning, Monitoring, and Evaluation Cycle

Annual Planning and Monitoring Cycle

1. A regular cycle of planning and monitoring of sector plans and performance has been established at the national level (see table). Two major meetings are held by the Ministry of Health with donors and technical agencies. around the assessment of the previous year's performance, and the planning for next year's work program and budget. In April, all donors and technical agencies would meet to review the annual performance assessment and audit of the previous year of the sector, to identify main problems and solutions at the national level. This information is used to guide discussions for the next year's planning and budget guideline, leading to a definition of priorities for action and notional budget ceilings for the next year. In September, those agencies providing flexible Program Financing would also meet to finalize next year's financing commitments prior to the Ministry's submission of its budget to the Ministry of Finance. The decisions would include how much funds would enter the common Health Account, and how much would be earmarked for the next year. In addition to the two main meetings, there is also a monthly Government-Health Partners meeting, to keep updated about current issues and to discuss operational matters. In addition to the cycle reported here, there is a quarterly reporting system for districts and regions, and regular monitoring and assessment meetings of Regional Directors at the national level, and district directors at each region.

2. Before the end of 2001, a major evaluation of progress of the POW is planned. This evaluation would include explicit measurement of health impact and the effects of the POW in achieving its goals: improving access and quality of health services, and fostering linkages with other sectors. The indicators assessed at this time would include not only the trends of the agreed sectoral performance indicators, but also the indicators emerging from the development of the health information system. The long-term indicators on mortality, fertility, and nutritional status should be examined from population-based data (see para. 2.2 of the SAR). Since equity is a major concern, the evaluation should include an analysis of how much the poor (and other groups at risk) are benefiting from the POW, and specifically on public expenditures on health.

Role of Bank Supervision

3. The main role of Bank supervision is to provide added value to problem-solving capability of the Ministry of Health (and the Ghana Health Service), and to provide assurances to Bank management that the program is progressing in a manner that permits it to provide financing and technical inputs at its annually agreed level. For the Bank, its contribution to problem-solving will be primarily aimed at decisions and interventions that can be made at the national level, and should focus on systemic issues and policy concerns. Many of the issues should involve creating an improved environment and support for more important actions at community and district levels. This means that the Bank will need to maintain a good knowledge of what other partners are doing, how health services are operating at different levels of the system, and how beneficiaries are affected by implementation of the POW and other factors affecting the health of Ghanaians.

4. The Bank will send a team from headquarters for both the April and September meetings, and will maintain a local resident mission presence throughout the year to continue our dialogue with other partners, update our knowledge of health services and beneficiaries, and provide "Bank-related" implementation services as required. Such services could include help with procurement review and disbursement, as well as help with finding technical assistance and communicating with other partners. Prior to the April meeting (planned for February in 1998), the Bank, along with other partners, will help prepare the monitoring assessments, and underake spot checks on the measurement of performance indicators, obtaining first-hand insights on issues and problem-solving at different levels of the system. In a process similar to the preparation and appraisal mission for the POW, each agency is likely to take a leading role on specific topics. It is likely that the Bank would take a lead on issues related to macro-economic linkages, health financing, and procurement. Between the two main missions, we may undertake other missions as determined by Government and the consortium of donors and technical agencies to deal with specific issues. In 1997, a mission is planned around the central medical stores and pharmaceuticals policy. We also intend to continue non-lending services that would contribute to the sector dialogue, particularly in the area of health financing and concerns of the poor.

Table: Timetable of Major Health Sector Planning and Monitoring Events

Month	Events
January	- Budget approved by parliament with provisional estimates - Begin consolidation of data on sector performance indicators
February	- Joint GOG-Health Partners mission(s) to prepare April monitoring reports
March	- Plan and budget guidelines drafted
April	- GOG-Health Partners Meeting to review annual financial statements and performance, agreement on annual plan priorities, funding intentions, budget ceilings and guidelines - Begin financial audit
May	- Plan and budget guidelines distributed to BMCs
June	- Annual POW financial audit completed
July	- District-level plans & budgets completed and distributed
August	- Consolidated Regional plans & budgets completed - Draft National Consolidated Plan & Budget completed
September	- GOG-Donor meeting to agree on next year's Consolidated Plan & Budget, Procurement Schedule
October	- Consolidated budget submitted to MOF
November	- National budget submitted to Parliament
December	

GHANA HEALTH SECTOR SUPPORT PROGRAM
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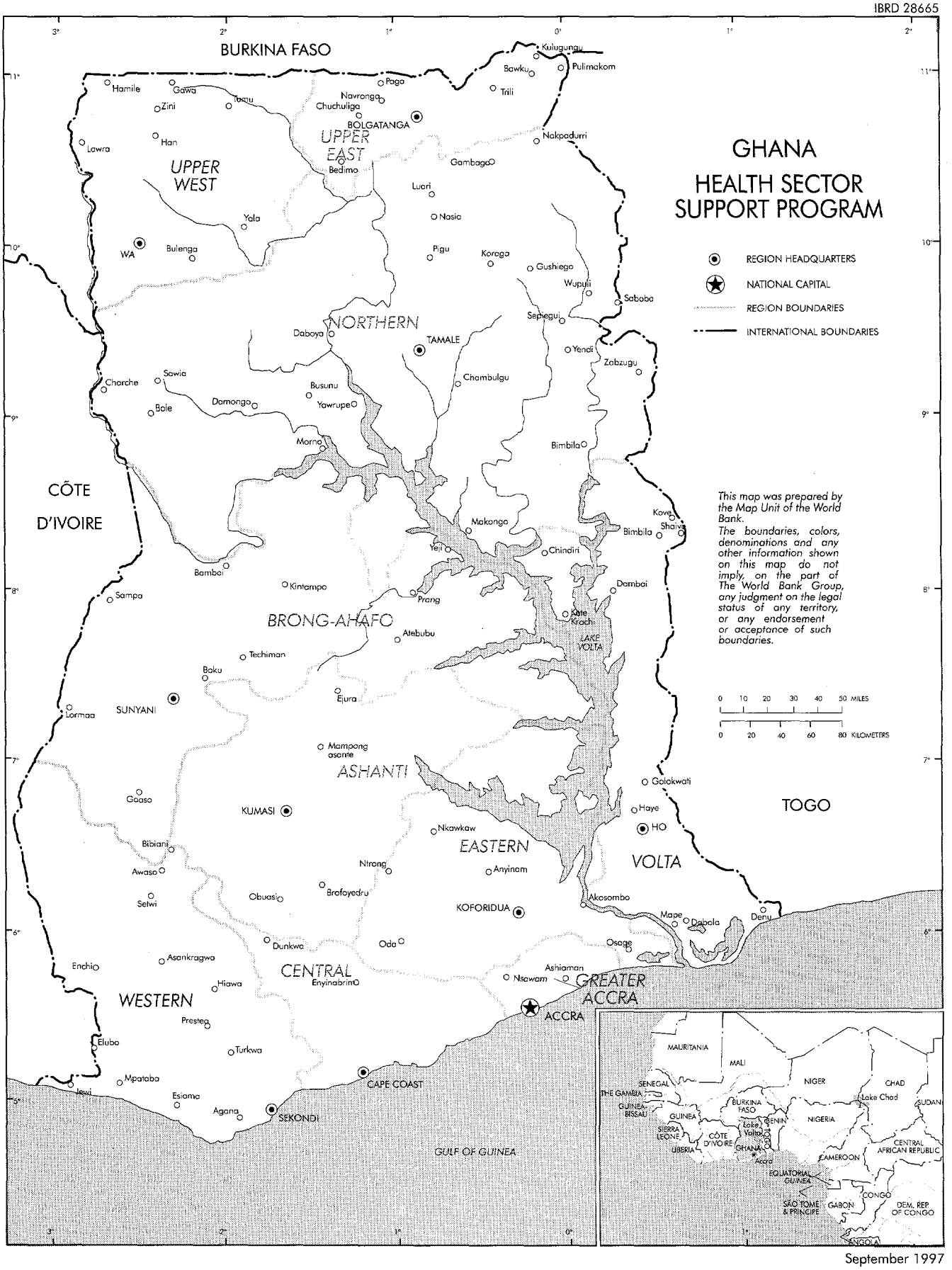

September 1997

IMAGING

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