

## **THE HEALTH OF THE NATION**

**Reflections on the First Five Year Health Sector  
Programme of Work  
1997- 2001**

**Ministry of Health  
Government of Ghana  
August 2001**

## **PREFACE**

This document is a review of the health sector at a critical time in the history of Ghana. A new government with a new developmental agenda has been elected. Its emphasis on the private sector and business led development will no doubt be a major consideration in the nature of health care delivery to be developed particularly on the public/private mix in health care providers.

At the same time, the economy has declined considerably in the latter part of 1999 and 2000, leading to the country opting for Highly Indebted Poor Countries (HIPC) initiative. The implications of this in terms of making more resources available to the sector will need careful examination.

The government is also committed to dealing with issues of poverty and health. In this regard, the health sector requires a new vision. A vision, which recognizes the constraints and achievements of the past whilst taking advantage of new innovative opportunities to making health services more financially accessible and efficient. The government plans to review the system of payment at the point of service delivery and abolish the "cash and carry" system. Flexible pre-payment and other insurance schemes will be introduced. There will be appropriate safety nets to protect those who cannot afford to pay.

Additionally, the Government is committed to dealing with the HIV/AIDS epidemic as well as addressing other "stubborn" diseases such as Malaria, Tuberculosis and Malnutrition.

Underpinning all these efforts there needs to be a well-motivated and well-trained cadre of health and health related professionals. Training strategies at pre-service and post-graduate levels will be pursued, as well as mechanisms to ensure their retention and appropriate distribution.

This report is an important beginning to the realization of this new vision. It is a clear account of where we are and how much more progress is required in the health sector. The 2000 regional and divisional reports, as well as the various task team reports, provided an excellent basis for the production of this document. This document is a synthesis of these reports and hence attempts to be brief and more user-friendly. It is work done by health experts within the MoH, academia, and health partners. It has also evolved from a consultation process involving a wider set of stakeholders including other Ministries and Civil Society Organizations.

I acknowledge the depth of analysis and would show my appreciation to all who have been involved in its production and urge all stakeholders in health to use this report as the basis for planning for the future.

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**MINISTER OF HEALTH, GHANA**  
**September 2001**

## EXECUTIVE SUMMARY

Ghana is in the last year of implementation of its first 5YPOW (1997 – 2001). A new 5YPOW (2002 – 2007) is to be developed. This document, which discusses the state of health of the nation, is the first step towards this.

The document contains the analysis of the overall health status of Ghanaians. Though this has improved the gains have been slow and unequal.

Diseases such as malaria, diarrhoea, RTI, tuberculosis and epidemics still persist. HIV/AIDS poses a special threat; that maternal mortality remains unacceptably high. Non-communicable diseases such as hypertension are increasing; and injuries and deaths from RTA are high.

The use of government health facilities has remained constant for some time though public health services has seen increases in uptake.

Several issues or problems have been identified as contributing to this situation:

- It appears that financial barriers to access are much more important than overcoming geographical barriers based on increases in the supply of health facilities and expensive capital investment. This may be reflected in the low uptake of curative care.
- Targeting of vulnerable groups such as the poor or places such as rural areas in the provision of services and resources for that have not been optimal.
- The health care delivery system has not been that responsive to the beneficiaries.
- The potential for NGO and inter-sectoral action to influence key determinants of health (other than health services) remains untapped.
- The building blocks of the organizational reforms are in place but progress to achieve the expected efficiencies has not been realized.
- Human resource strategies have resulted in only marginal staff increases. Addressing the low salaries of health workers remains a dilemma.
- Whilst overall budgetary targets may have been achieved, per capital expenditure on health remains low and the allocation inequitable.

Recommendations for the next 5 Year Programme of Work include:

- The need to take into account the new government policies including the adoption of the Highly Indebted Poor Countries (HIPC) initiative and emerging international public health initiatives such as RBM in the preparation of the next 5YpoW.

- There is the need for a strategic reorientation of the conduct of business in the sector. MoH as purchaser exploits comparative advantage of all providers (public and private) and establishes contracting arrangements or principles.
- Overall the MTHS as an overarching strategic policy document is still relevant to give the needed direction to the health sector. However, there is the need for it to be a bit more biased towards reducing inequalities in health outcomes hence the theme for the next five years is appropriately “bridging the inequalities gap”.
- The public health service provision arrangement needs to be positioned strategically in a pluralistic health sector, exploiting its comparative advantage in promotive, preventive and life-extending services. Its operation must be fully financed and affordable.

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# I. INTRODUCTION

## 1. Where have we come from?

The Health of Ghanaians has been improving since Independence. Infant Mortality Rate (IMR) amongst Ghanaian children have fallen from 133 in 1957 to 57 per 1,000 live births in 1988 and Under Five Mortality Rate (U5MR) from 154 in 1988 to 110 per 1000 live births (GSS/MI, 1999<sup>1</sup>). However the rate of change has been slow and current rates are still far from desirable. Moreover, the aggregate rates mask wide within country differentials that raise cause for concern. Infant mortality rates, for example, vary from less than 57/1,000 live births in the southern part of the country to over 100/1,000 in the northern part.

The health of a nation is closely related to its wealth. With the current GDP estimated as US\$ 390 per capita, Ghana is a poor country. This in part explains the poor state of health. However, poverty alone is not the reason for slow health gains. The relation between a country's wealth and the health of its people though real is not tight. For any given level of wealth there is a range of possible health outcomes from the very poor to the very good. Governments have to make careful choices in applying the resources over which they have stewardship on behalf of the people. These strategic choices influence health outcomes within the context of national policies and interventions over a wide range of activities: health care, education, water, sanitation, and women's status and rights.

In 1996, Ghana developed a long term vision for growth and development that would move it from a low income to a middle income country by 2020 known as '*Vision 2020: The First Step*'<sup>2</sup>. The Vision 2020 document defines the nation's areas for priority attention in the medium to long term as:

- Maximizing the healthy and productive life of Ghanaians
- Fair distribution of the benefits of development
- Attainment of a national economic growth rate of 8 per cent
- Reduction of the population growth rate from 3 per cent to 2.75 per cent
- The promotion of science and improved technology as tools for growth and development

## 2. Where did we set out to go?

In the vision 2020 document, the overall objective of national health policy was seen as to 'Improve the health status of all Ghanaians'.

The specific health objectives of Vision 2020 were:

- Significant reduction in the rates of infant, child and maternal mortality rates
- Effective control of risk factors that expose individuals to major communicable diseases
- Increased access to health services especially in rural areas
- Establishment of a health system effectively reoriented towards delivery of public health services
- Effective and efficient management of the health system strengthened.

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<sup>1</sup> Ghana Statistical Service and Macro International Inc. (MI) 1999 ;Ghana Demographic and Health Survey, 1998 ; GGS/MI

<sup>2</sup> GoG (1997) Ghana Vision 2020: The First Medium Term Development Plan (1997 – 2000), NDPC, Accra-Ghana

Taking its cue from Ghana Vision 2020, the Ministry of Health developed and published a Medium Term Health Strategy (MTHS)<sup>3</sup> document and a 5-year programme of work<sup>4</sup> that would guide health development in Ghana over a five-year period 1997 - 2001.

The objectives for the Programme of Work (POW) were to achieve:

- Increased geographical and financial **access** to basic services
- Better **quality** of care in all health facilities and during outreaches
- Improved **efficiency** in the health sector
- Closer **collaboration and partnership** between the health sector and communities, other sectors and private providers both allopathic and traditional
- **Increased overall resources** in the health sector, **equitably and efficiently distributed**

A mission statement that summarises the overall direction of the sector stated that:

*“As one of the critical sectors in the growth and development of the Ghanaian economy, the mission of the health Ministries, Departments and Agencies is to improve the health status of all people living in Ghana through the development and promotion of proactive policies for good health and longevity; the provision of universal access to basic health service and provision of quality health services which are affordable and accessible. These services will be delivered in a humane, efficient, and effective manner by well trained, friendly, highly motivated and client oriented personnel.”*

Having Specified targets to be attained over the five-year period 1997 – 2001, 20 sector-wide indicators were then developed to measure progress. These indicators are shown as Table (1) below with a summary of its performance over the first four years attached as annex 1.

An examination of these indicators suggests that they are not necessarily the best for measuring either output or the outcome effects. They were a compromise between the ideal and the possible. A review<sup>5</sup> has been done and the results are to be used to develop a revised set of indicators for the next five-year programme of work (2002-2006), which is now underway.

### **3. The Analytic Framework for Implementation**

The framework on which the current Five Year Programme of Work was based is shown in Figure 1 below. This Analytic framework assumes that there is an association between population health outcome indicators such as IMR, U5MR, MMR and population morbidity rates. Population morbidity rates are in turn influenced by the kind of health intervention packages selected and implemented. The effectiveness of the health intervention package in reducing morbidity and thus mortality in a given population depends not just on the content of the package, but on certain cross cutting issues that would affect the delivery of package of services. These issues grouped together are to be promoted within the context of the five objectives of the programme of work as discussed earlier that are now often referred to as the pillars of health reforms in Ghana.

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<sup>3</sup> MoH (1996) Medium Term Health Strategy, Accra - Ghana

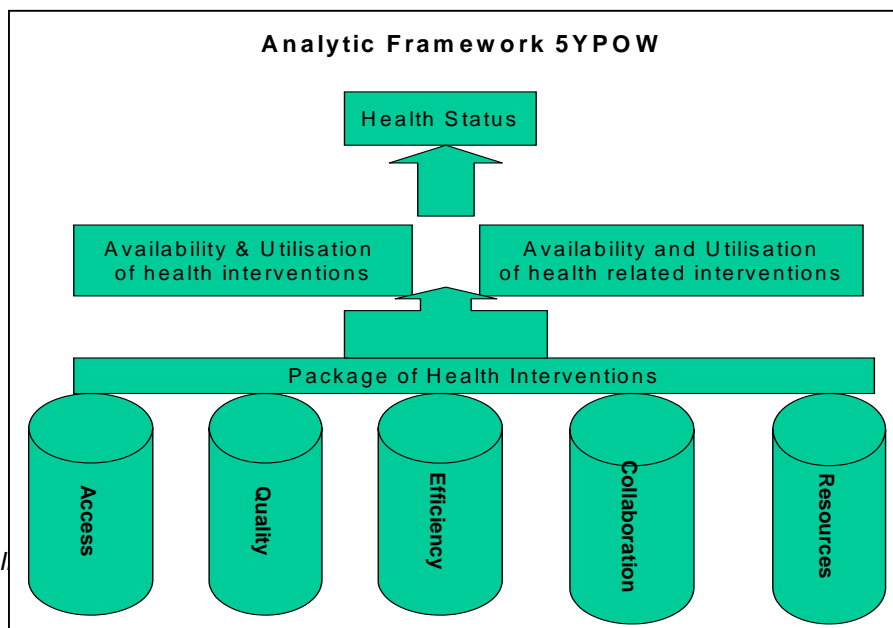
<sup>4</sup> MoH (1996) A 5-Year Programme of Work, Ministry of Health, Ghana

<sup>5</sup> Adams et al, 2000 Review of the 20 Sector-Wide Indicators; CHIM/MoH

**TABLE 1 - INDICATORS FOR THE MEASUREMENT OF THE IMPACT OF THE FIRST FIVE YEAR PROGRAMME OF WORK**

	INDICATOR (IMPACT MEASURE)	1997 ESTIMATE	2001 TARGET	
<b>1. HEALTH STATUS</b>	IMR/1000 LIVE BIRTHS	66	50	
	UMR/1000	132	100	
	MMR/100,000	214	100	
	LIFE EXPECTANCY/YEAR	58	60	
<b>2. FERTILITY</b>	ANNUAL GROWTH RATE	3	2.75	
	TOTAL FERTILITY RATE (TFR)	5.5	5.0	
<b>3. NUTRITION</b>	% CHILDREN WITH SEVERE MALNUTRITION	12	8	
<b>4. HEALTH SERVICE</b>	PER CAPITA OPD ATTENDANCE AT PUBLIC FACILITIES	0.3	0.5	
	- MALARIA	24	8	
	- ARI	10	1	
	- MATERNAL DEATH	15	85	
	- TB CURE RATE	50	40	
	% IRON DEFICIENCY ANEMIA IN PREGNANCY	40	60	
	% SUPERVISED DELIVERY	49	75	
	% DPT3/OPV3 COVERAGE	64	80	
	% TT2 COVERAGE	0.3	100	
	% IODIZED SALT	0.2	80	
	% VIT. A SUPPLEMENT	10	40	
	% USE OF ITM	24	80	
	% CHILDREN WITH DIARRHEA RECEIVING ORS	19	80	
	% INFANTS EXCLUSIVELY BREASTFED FOR 4 MONTHS			
	<b>5. OTHER SECTORS</b>	% ENROLMENT OF GIRLS IN SS	33	45
		% HOUSEHOLDS WITH SAFE WATER	65	80
% HOUSEHOLDS WITH SANITARY FACILITY		55	80	
% ENDEMIC VILLAGES REPORTING NO GUINEA WORM		45	100	

**FIGURE 1 - ANALYTIC FRAMEWORK**





Secondly, the effectiveness and efficiency of collaboration and partnership (linkages) between health providers (public and private; both allopathic and traditional) in implementation of the package and with other government sectors such as education was considered very important to the realization of health outcomes.

Third, the organization and management systems to support delivery of the package of interventions will also affect how effectively the package is delivered and thus its impact on population morbidity and mortality.

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### **BOX 1 - PACKAGE OF PRIORITY HEALTH INTERVENTIONS SELECTED UNDER THE MTHS**

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1. IMMUNIZATION THROUGH EPI
  2. REPRODUCTIVE HEALTH PROGRAM
    - FAMILY PLANNING SERVICES
    - ESSENTIAL AND EMERGENCY OBSTETRIC CARE
  3. PREVENTION AND CONTROL OF INFECTIONS WITH EPIDEMIC POTENTIAL
    - CHOLERA
    - CEREBRO-SPINAL MENINGITIS
    - YELLOW FEVER
  4. HEALTH PROTECTION AND PROMOTION
    - BED NET USE
    - NUTRITION AND DIET
    - ALCOHOL, DRUGS AND TOBACCO
    - STDS/HIV
    - HYGIENE AND SANITATION
  5. PREVENTION AND CONTROL OF MICRO-NUTRIENT DEFICIENCIES
    - VITAMIN A
    - IRON
    - IODINE
  6. MANAGEMENT OF SELECTED ENDEMIC DISEASES
    - MALARIA
    - TUBERCULOSIS
    - LEPROSY
    - RESPIRATORY TRACT INFECTIONS – ARI
    - SEXUALLY TRANSMITTED DISEASES
    - DIARRHEA DISEASES
    - GUINEA-WORM DISEASE
    - ONCHOCERCIASIS, SCHISTOSOMIASIS, YAWS, BURULI ULCER
    - HYPERTENSION AND DIABETES
  7. EMERGENCY CARE FOR ACCIDENTS AND TRAUMA
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The package of priority health interventions defined for the Medium Term Health Strategy (MTHS) is shown in Table 2. This is the package of essential health promotion services, health preventive, clinical and rehabilitative services for which access to and quality was to be improved for all Ghanaians under the MTHS for 1997-2001. Apart from improving access to and quality of this essential package of interventions, improved efficiency in the health sector,

improved financing and improved partnerships and collaboration were all targeted at ensuring the improved delivery of this package.

Organizational and management systems in the health sector were also to be improved and reoriented to support delivery of this essential package of services in an equitable manner to all Ghanaians. An equitable manner implied that there would be equal application or implementation for equal need (and unequal application or implementation for unequal need) regardless of social standing, geographical location or wealth of a given segment of the populations.

### ***Weaknesses in the Model***

The conceptual framework on which the MTHS is based though useful is not perfect. It has some assumptions and limitations that need to be stated. It does not try to assess or show the relative importance of other factors known to affect the health of populations such as nutrition, environmental sanitation, and education on the ultimate outcome of morbidity and mortality. Although the sector recognized these factors, it did not draw up specific programmes for them.

Secondly, interventions have to be utilized by the populations to which they are targeted to achieve the desired effect. The model assumes that once available and made geographically, financially and socio-culturally accessible as well as of acceptable quality, populations will utilize the interventions. This assumes that the population values and desires the interventions. As discussed in Section III, this assumption has proven to be critical.

## **5. Progress in Implementation**

Implementation of the 5-year programme of work was launched in 1997. The year 2000 is thus the fourth year of implementation. This review is therefore the fourth in the series of annual reviews and this document is a continuation of a process that started with the first annual review of the MTHS in 1997 to try and answer each year the question 'Where are we now'.

The current review has been developed based on a review of reports from the 10 regions and the headquarters directorates of the Ghana Health Service, the Teaching Hospitals and Statutory or Regulatory bodies under the Ministry of Health<sup>6</sup>, as well as other studies and evaluations commissioned in the course of the year; e.g. the study of the exemptions policy<sup>7</sup> and the inequalities studies<sup>8</sup>. Five Task Teams were set up to provide independent assessments in the following areas:

Mortality and Morbidity  
Interventions and Service delivery  
Human Resources  
Organisation and Management  
Finance

A Technical Team did the final review and synthesis with members drawn from the Ghana Health Service, Ministry of Health and some of the Health Sector Development partners.

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<sup>6</sup> All the reports covered trend analysis up to the year 2000.

<sup>7</sup> Garshong B et al, 2001 'We are still paying'; HRU, MoH: Ghana

<sup>8</sup> Bosu W.K and Nsowah-Nuamah N, 2000 A Profile of Health Inequalities in Ghana; HRU:MoH, Accra, Ghana

This review has peculiar importance in the series of annual reviews that have been conducted since 1997. The review does not only try to answer the question 'Where are we now?' It also asks the question 'Based on our vision of where we want to get to, and our experience and progress in the path we took over the last 4 years, how should we best proceed in the next five years 2002-2006'. It therefore provides the basis for the design of the next five-year program of work. As such a key area of emphasis is the lessons learnt from the experience in implementing the current program of work (1997-2001).

## **6. Structure of the report**

The structure of this report follows the major issues raised in the independent assessment done by the task teams and responds to the conceptual framework presented in figure 1 above. The next section discusses health trends and inequalities in Ghana. Sections 3 and 4 examine the health interventions package, progress made in its implementation and in tackling the cross cutting issues of access, quality and equity. Sections 4 and 5 examine the organizational and management arrangements in the health sector and their role in the delivery of the selected intervention package. Section 7 reviews Human Resource policies and Section 8 & 9 examines financing arrangements and their adequacy or otherwise in ensuring that the package of essential interventions reaches the population. The last section presents conclusions and suggestions for the future.

## II. HEALTH AND DISEASE IN GHANA

### 1. Introduction

This chapter discusses the level and distribution of health across various socio-demographic groups, trends and some projections in health and disease. The mortality data are mainly derived from national surveys whilst the morbidity data are mainly facility-based. The section highlights some inequalities in the level of health and disease by demographic groups. As data availability permits, the achievements over the current 5YPOW 1997-2001 are reviewed and discussed.

### 2. Mortality statistics for Ghana

The under five-mortality rate (U5MR) is generally regarded as a good overall indicator of the health of a population. It is also the indicator for which most data, disaggregated by various demographic groups are available. While children under five years of age constitute less than 20 per cent of the population, they account for more than 50 per cent of the estimated 192,000 deaths in Ghana each year.<sup>9</sup>

Overall, the U5MR declined from 154 per 1,000 to 110 per 1,000 between 1988<sup>10</sup> and 1998<sup>11</sup> a decline of 27 per cent. Ghana's U5MR is much lower than that of most of its neighbouring countries. Inequalities both in terms of the level of mortality and the trends in mortality were examined. According to the GDHS 1998, regional U5MR ranges from 62 per 1,000 live births in the Greater Accra Region to 171 in the Northern Region (Table 2.1). The northern regions have U5MR levels that are 1.4 to 1.5 times higher than the national average and 2.5 to 2.7 times higher than that of Greater Accra Region. Children in the rural areas are 1.6 times likely to die before their fifth birthday compared with those in urban areas.

The U5MR is 60 per cent higher in rural areas, 7 per cent higher among male children, and 2.2 times as much in children of women with no education as in those of women with secondary or higher education. Other correlates of high U5MR are teenage motherhood, birth order other than the second or third, and birth interval of less than two years. Infant mortality rates are also highest in the Central Region and the northern regions, in rural areas, and among women with low education.

The differences in U5MR by expenditure quintiles based on the Ghana Living Standards Measurement Survey (GLSS) of 1988 are much smaller<sup>12</sup>. U5MR in the poorest households is 20 per cent higher than that of the richest households.

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<sup>9</sup>Using a crude death rate of 12 per 1000 - Ministry of Health, Ghana. Policy and strategies for improving the health of children under-five in Ghana. Accra, August 1999

<sup>10</sup> Ghana Statistical Service (GSS) & Macro Systems Inc. (MS) 1989. *Ghana Demographic and Health Survey 1988*. Columbia, Maryland: GSS and MS

<sup>11</sup> Ghana Statistical Service (GSS) & Macro International Inc. (MI) 1999. *Ghana Demographic and Health Survey 1998*. Claverton, Maryland: GSS and MI

<sup>12</sup> Wagstaff A. Socioeconomic inequalities in child mortality: comparisons across nine developing countries *Bulletin of the World Health Organization* 78 (1) 2000 19-29

**Table 2.1 Trends in infant and under five mortality rates by different socio-demographic groups, GDHS 1998**

Group/Area	IMR '88	IMR '93	IMR '98	U5MR '88	U5MR '93	U5MR 98
<b>Region</b>						
WR	77	76	68	151	132	110
CR	138	72	84	209	128	142
GAR	58	58	41	104	100	62
ER	70	56	50	138	93	89
VR	74	78	54	133	116	98
AR	70	65	42	144	98	78
BAR	65	49	77	123	95	129
NR	103	114	70	222	237	171
UWR	-	85	71	-	188	156
UER	-	105	82	-	180	155
<b>Residence</b>						
Urban	67	55	43	131	90	77
Rural	87	82	68	163	149	122
<b>Mother's Education</b>						
No education	88	87	66	175	166	131
Primary	85	86	70	148	141	113
JSS	70	55	54	129	89	91
Sec +	79	28	37	100	41	60
<b>Gender</b>						
Male	89	79	64	160	138	114
Female	74	70	58	147	128	106
<b>Ghana</b>	<b>81</b>	<b>75</b>	<b>61</b>	<b>154</b>	<b>133</b>	<b>110</b>

IMR = Infant mortality rate, IMR and U5MR 1988 figure for the NR is combined for the three northern regions NR, UWR, UER; U5MR = Under five mortality rate

The maternal mortality ratio (MMR) for Ghana has been computed at different times by various methods. The national estimates vary from 214 to 740 per 100,000 live births<sup>13</sup>. Those of the surveys that present disaggregated data indicate that, consistent with U5MR patterns, mortality levels are highest in the northern belt and in women with lower education.<sup>14</sup> The leading causes of maternal deaths are haemorrhage, hypertensive disease in pregnancy, abortions, sickle cell disease, genital tract infections, anaemia and obstructed labour.<sup>15</sup>

It is projected that childhood mortality and adult mortality statistics will improve over the next 5-10 years with improvements in education, income and health technology. The single biggest threat to the rate of decline is increasing HIV prevalence.

<sup>13</sup> MoH, 1999; Consolidating the Gains; Mid-Term Review Report, Accra Ghana; MoH

<sup>14</sup> Twum-Baah KA, Nyarko PE, Quashie SE, Caiquo IB, Amuah E. *Infant, child and maternal mortality study in Ghana*. Accra: Ghana Statistical Service, March 1994

<sup>15</sup> Lassey AT, Wilson JB. Trends in maternal mortality in Korle Bu Hospital, 1984-1994. Ghana Medical Journal 1998; 32a: 910-916

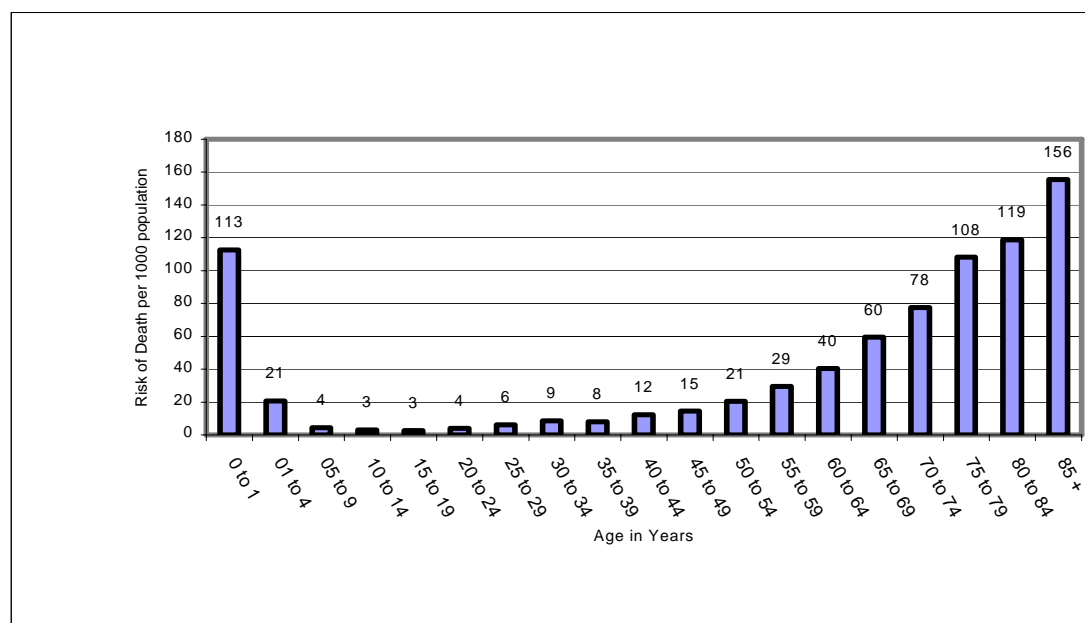
### Age specific mortality rates

Population-based data on age-specific mortality rates in Ghana as a whole are scarce. Age-specific mortalities based on the Navrongo Demographic Surveillance System (NDSS) show that the highest annual risk of death are at the extremes of life while the lowest is from age 5 to 39 years (see Fig 2.1 below).

### Causes of death

Analyses of various institutional data reveal malaria, anaemia, stroke, pneumonia and tuberculosis as leading causes of death in Ghana.<sup>16</sup> Malaria and anaemia together account for up to 40 per cent of reported death of children up to 15 years. Pneumonia and diarrhoea are significant causes of death in all age groups.<sup>17</sup> Injury, liver disease, HIV and tuberculosis become important causes of death from age 15 years onwards. Injury and liver disease exact a higher burden of deaths in men than in women. In contrast, HIV related death in women is proportionately higher than for women. Stroke and hypertension are the predominant causes of death reported for both sexes after the age of 45 years.

**Fig. 2.1. Age-specific annual risk of death, Kassena-Nankana District, 1995-1999**



Twenty years ago, malaria, measles, childhood pneumonia, sickle cell disease, severe malnutrition, prematurity, birth injury, accidents, gastroenteritis and tuberculosis collectively accounted for 57 per cent of the total burden of disease in Ghana as measured by the healthy days of life lost through the illness, disability and death.<sup>18</sup> These diseases are still major causes of death although the relative burden of measles has substantially declined through successful childhood immunisation while HIV and cardiovascular incidence have increased.

<sup>16</sup> Report of Health and Disease Analysis Task Team, 2001

<sup>17</sup> Report of Health and Disease Analysis Task Team, 2001

<sup>18</sup> Ghana Health Assessment Project Team. A quantitative method of assessing the health impact of different diseases in less developed countries. *International Journal of Epidemiology* 1981; 10: 73-9

The main causes of early neonatal deaths are prematurity, birth asphyxia, sepsis, meconium aspiration, birth injury, congenital malformation and anaemia. These causes of neonatal deaths have remained largely the same over the past twenty years.<sup>19</sup> The majority of deaths in Ghana are caused by a few diseases, which can be prevented with existing, cost-effective interventions.

### 3. Morbidity statistics for Ghana

We assess illness burden in terms of the frequency of self-reported illness, burden of childhood and adult malnutrition, and reported diseases at public health facilities. According to the CWIQ survey, 19 per cent of the population in rural areas and 18 per cent of those in urban areas self-reported that they had been sick or injured in the preceding 4 weeks of the survey to an extent which disrupted normal activities.<sup>20</sup> Prevalence of self-reported illness ranged from 11 per cent in rural areas of Upper West and Greater Accra Region to 25 per cent in the rural areas of Western and Brong-Ahafo Regions. Nine percent of the population in rural areas and 11 per cent of those in urban areas reported fever or malaria.

In children under five years, the national prevalence of fever during the two weeks preceding the GDHS 1998 survey was 27 per cent, ranging from 21 per cent in the Ashanti Region to 38 per cent in the Northern Region.<sup>21</sup> The prevalence of acute respiratory infections (ARI) was 14 per cent, ranging from 10 per cent in the Greater Accra Region to 18 per cent in the Upper East Region. Generally, the prevalence of self-reported childhood diseases is higher in the northern regions than in other regions. Apart from diarrhoea, which is more prevalent in rural or urban poor areas, fever and ARI occur in similar frequency in urban and rural areas. Mothers with no education and those with secondary or higher education most frequently report fever in their children. Regional differences in self-reported illness could be genuine or simply reflect differences in recall and perceptions of illness, or its severity.

The burden of childhood nutritional status probably presents more reliable information on regional differences in the burden of illness. Both the CWIQ 97 and GDHS 98 show that the highest level of stunting (reflecting chronic malnutrition) in children under five years is in the northern regions and in rural areas and lowest in Greater Accra Region and urban areas.<sup>22</sup> Twenty-six percent of under-fives in Ghana have stunted growth - the regional variation ranges from 11 per cent in the Greater Accra Region to 40 per cent in the Northern Region.

The prevalence of childhood malnutrition decreases with increasing maternal educational levels. Stunting in children whose mothers have no education occurs 2.5 times as frequently as in children whose mothers have secondary or higher education.<sup>23</sup> Levels of childhood malnutrition increase with decreasing poverty quintile order. In urban areas, stunting is twice as common among under fives from the lowest poverty quintile compared to the highest poverty quintile; the differential is in the order of 1.5 times in rural areas.

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<sup>19</sup> this confirms the report by Anyebuno M. Perinatal mortality in Korle-Bu Teaching Hospital, Accra. *Ghana Medical Journal* 1996; 30: 710-714

<sup>20</sup> Ghana Statistical Service. *Core Welfare Indicators Questionnaire (CWIQ) Survey 1997: main report*. Accra, March 1998

<sup>21</sup> Ghana Statistical Service (GSS) & Macro International Inc. (MI) 1999. *Ghana Demographic and Health Survey 1998*. Claverton, Maryland: GSS and MI

<sup>22</sup> Stunting refers to children whose height-for-age is below minus two standard deviations from the median of a reference population. Wasting is similar but uses a weight-for-height index. Underweight uses a weight-for-age index.

<sup>23</sup> Ghana Statistical Service (GSS) & Macro International Inc. (MI) 1999. *Ghana Demographic and Health Survey 1998*. Claverton, Maryland: GSS and MI

According to the GLSS 1 and 2<sup>24</sup>, 27 per cent of Ghanaian adults are either malnourished or overweight based on their body mass index. One fifth of adults in rural areas are malnourished and 6 per cent overweight. In contrast, 12 per cent of adults in urban areas are malnourished and one fifth overweight.

Using the rather high World Health Organisation cut-off haemoglobin levels of  $\leq 11$  g/dl in preschool children and pregnant women and  $\leq 12$  g/dl in school-age children and lactating women, MoH found prevalence rates of anaemia of at least 80 per cent in preschool children and at least 52 per cent in pregnant women in all three ecological zones in Ghana.<sup>25</sup> Except for the school-aged children, anaemia was more prevalent in the northern savannah than in the other zones. It was also more prevalent in rural than urban areas.

### ***Outpatient morbidity statistics***

Morbidity statistics are derived mainly from hospital data. Completeness and coverage of the data, case definitions, availability of facilities and treatment seeking patterns limit comparisons. The per capita Out Patient Department (OPD) attendance in Ghana has increased from 0.32 in 1996 - 0.42 in 2000. The pattern of diseases reported at first visits has been consistent over time with minor fluctuations. Malaria, upper respiratory tract infection (URTI), diarrhoea, skin disease and injury are the leading causes of OPD visits. Malaria (42 per cent) and URTI (8 per cent) account for half of the total number of OPD visits.<sup>26</sup> The proportional outpatient burden of malaria declined slightly from 44 per cent in 1989 to 41 per cent in 1998; that of measles declined from 1.1 per cent in 1990 to 0.5 per cent in 1998.<sup>27</sup>

Further analysis of morbidity patterns by age and sex in the Greater Accra Region show that malaria is the leading cause of outpatient morbidity in all age-sex groups accounting for more than one fourth of OPD visits in each age group. Up to 14 years, malaria, URTI, diarrhoea, skin diseases, anaemia and eye infections are common. Pregnancy and gynaecological disorders account for about 16 per cent of outpatient attendance among females aged 15 to 44 years. In the elderly, common causes of outpatient morbidity include hypertension, URTI, joint pains, accidents and skin diseases.

There appears to be some regional differences in outpatient morbidity. Hypertension accounts for 14-18 per cent of total attendance in over 45 year old patients in GAR, but only for 2-3 per cent in UER. Some of these differences may be due to availability of facilities, and differences in seasonal patterns. Generally, the value of proportionate mortality data is limited by the fact that it depends on the magnitude of other reported diseases.

### ***Inpatient morbidity***

The admission rate to public health facilities in 1999 was about 24 per 1000 population. The regional admissions rate per 1000 ranged from 4 in Ashanti Region to 48 in the Central Region. Admission rates are a function of burden of illness, availability, access to and utilization of both public and private health facilities and their services.

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<sup>24</sup> quoted in Nubé M, Asenso-Okyere WK, van de Boom GJM. Body mass index as indicator of standard of living in developing countries. *European Journal of Clinical Nutrition* 1998; **52**: 136-144

<sup>25</sup> Quarshie K, Amoafu E. MoH/UNICEF. *Proceedings of the workshop on dissemination of findings of vitamin A and anaemia prevalence surveys*. Accra, 24<sup>th</sup> – 25<sup>th</sup> November, 1998

<sup>26</sup> Report of Health and Disease Analysis Task Team, 2001

<sup>27</sup> OPD statistics 1989-1998, CHIM, MOH 1999



At KBTH, perinatal conditions account for two third of admissions in infants, as might be expected for a tertiary referral facility.<sup>28</sup> In the 5-14 year group, injuries represent about 20 per cent of admissions of both sexes. Among women aged 15-44 years, 42 per cent were admitted for spontaneous deliveries, an indication of high utilization for primary care by this group. Altogether, maternal and gynaecological disorders accounted for at least 78 per cent of admissions in this group. Among the elderly, stroke, injuries and heart failure are the leading causes of admissions for both sexes.

#### **4. Some key public health issues**

This section examines disease patterns in relation to environmentally related diseases, epidemics, HIV/AIDS, tuberculosis, guinea worm disease, non-communicable diseases and injuries in Ghana. Strikingly, the pattern of leading causes of outpatient morbidity reflects environmental ill health. About 70 per cent of the economic cost of health problems in Ghana has been attributed to environmentally related diseases, taking account of lost labour and the cost of resources.<sup>29</sup> Health problems arise from poor coverage of sanitation. In 1997, the proportion of the rural population with access to sanitation ranged from 3 per cent in the UWR to 95 per cent in the ER.<sup>30</sup>

##### **Epidemic Diseases**

Over the past five years, Ghana has experienced epidemics of cholera, cerebrospinal meningitis, yellow fever and rabies. Ghana experiences major epidemic of cholera every 9-11 years. In the latest epidemic in 1999, 9,463 cases with 259 deaths (CFR 3 per cent) were recorded.<sup>31</sup> Large epidemics of cerebrospinal meningitis (CSM) in the meningitis belt of Africa occur every 8-12 years, usually during the dry season. In the last epidemic, the three northern regions recorded 18,703 cases and 1356 deaths (CFR 7 per cent) between November 1996 and May 1997.<sup>32</sup> Sporadic cases of CSM occur in non-epidemic periods with higher CFR.<sup>33</sup> The incidence of rabies over the past five years has been low. However, outbreaks of rabies were reported by at least two regions last year with Central Region alone recording ten deaths.<sup>34</sup>

##### **Incidence of HIV/AIDS**

The reported annual cases of AIDS increased from 42 in 1986 to 6289 in 1999.<sup>35</sup> The incidence of AIDS in 2000 was 34 per 100,000 population (Table 2.3). By the end of December 2000, the cumulative number of reported AIDS was 43,587. Reported AIDS cases are thought to represent less than 30 per cent of the actual number of cases in Ghana. Ninety

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<sup>28</sup> Biritwum RB, Gulaid J, Amaning AO. Pattern of diseases or conditions leading to hospitalisation at Korle Bu Teaching Hospital, Ghana in 1996. *Ghana Medical Journal* 2000; 34: 197-205

<sup>29</sup> Leitmann J. Environmental management and urban development in the Third World: A tale of health, wealth and the pursuit of pollution from four cities in Africa, Asia, Eastern Europe and Latin America. PhD thesis. University of California, Berkeley, 1992. Cited in: "Better health in Africa: experiences and lessons learned." World Bank, 1994

<sup>30</sup> Ghana Statistical Service. *Core Welfare Indicators Questionnaire (CWIQ) Survey 1997: main report*. Accra, March 1998

<sup>31</sup> Ministry of Health. Annual report for 1999. Public Health Division

<sup>32</sup> Woods CW, Armstrong G, Sackey SO, Tetteh C, Bugri S, Perkins BA et al. *Lancet* 2000; 355: 30-33

<sup>33</sup> Asafo-Agyei AP. A survey of admissions and deaths in the paediatric department – Komfo Anokye Hospital – Kumasi 1974/75. *Ghana Medical Journal* 1978; 17: 84-94

<sup>34</sup> Central Regional Health Services. Annual Report for 2000

<sup>35</sup> MOH NACP Ghana. AIDS Surveillance Report 1999

percent of AIDS cases have been aged 15-49 years and 70 per cent more cases have been in females. The number of AIDS cases is projected to reach about 117,000 by the year 2014.<sup>36</sup> More than 90,000 Ghanaians have already died of the disease.

**Table 2.3 Reported AIDS in 1999 and cumulative cases since 1986 by region**

Cumulative AIDS cases by Region as at 31 Dec 2000								
Region	1986-99	2000		Total 2000	1986-2000	%	Pop. 2000	Incidence/100000
		Male	Female					
Ashanti	11,356	712	955	1667	13,023	29.9%	3,187,601	52
Brong-Ahafo	3,390	55	95	150	3,540	8.1%	1,824,822	8
Central	2,263	274	524	798	3,061	7.0%	1,580,047	51
Eastern	6,847	40	52	92	6,939	15.9%	2,108,852	4
Greater Accra	4,901	689	826	1515	6,416	14.7%	2,909,643	52
Northern	1,598	127	164	291	1,889	4.3%	1,854,994	16
Upper East	1,787	228	232	460	2,247	5.2%	917,251	50
Upper West	553	88	78	166	719	1.6%	573,860	29
Volta	1,166	201	331	532	1,698	3.9%	1,612,299	33
Western	3,351	264	354	618	3,969	9.1%	1,842,878	34
Not stated	86	0	0	0	86	0.2%	-	-
<b>TOTAL</b>	<b>37,298</b>	<b>2,678</b>	<b>3,611</b>	<b>6,289</b>	<b>43,587</b>	<b>100.0%</b>	<b>18,412,247</b>	<b>34</b>

### Trends In Sero-Prevalence

It is estimated that between 4 per cent and 5 per cent of the general population and 10 per cent of STD clinic attendants are infected with HIV.<sup>37</sup> HIV seroprevalence survey results in 2000 range from 1 per cent in Bolgatanga to 8 per cent in Agomenya. Currently, it is estimated that over 600,000 people, including about 40,000 children are HIV infected and 230 people are being infected daily.<sup>38</sup> By the year 2014, this number is projected to reach 1.36 million. An average of 10-15 HIV infections are encountered in 200 donors monthly at the KBTH.<sup>39</sup> The prevalence of HIV among facility-based sex workers is much higher than the national average - 75 per cent in Accra-Tema and 82 per cent in Kumasi.<sup>40</sup> HIV transmission could be high among the security personnel.<sup>41</sup>

### Sexually Transmitted Infections

Data on the prevalence of Sexually Transmitted Infections (STIs) is scarce. Among 500 antenatal clinic attendants at KATH in Kumasi, 18 per cent carried HBsAg, 7 per cent carried HIV antibodies and 5 per cent carried antibodies to syphilis.<sup>42</sup> The prevalence of STIs among

<sup>36</sup> NACP/MOH. HIV/AIDS in Ghana: Background, projections, impacts and interventions. March 1999

<sup>37</sup> UN Theme Group on HIV/AIDS, NACP, Partners in HIV/AIDS. The response to HIV/AIDS in Ghana. UNAIDS, January 1999

<sup>38</sup> Speech by Minister of Health, Dr RW Anane. Reported by Donkor M. 43,587 AIDS cases recorded in Ghana. Daily Graphic. April 5, 2001

<sup>39</sup> Daily Graphic No. 147428 Oct 15, 1998

<sup>40</sup> Dela Attipoe, Peter Wondergem. CIDA Project, 2000 (Get ref from Dr Sam Adjei)

<sup>41</sup> Asiamah G, Blantari J, Binka C. Promoting safer sexual behaviour in era of HIV/AIDS among the police in Ghana. Abstract ThPeC5361. XIII International AIDS Conference. Durban, South Africa, 9-14 July 2000

<sup>42</sup> Adu-Sarkodie Y, Boateng JO. Seroprevalence of STD markers in pregnant women. Abstract WePeC4396. XIII International AIDS Conference. Durban, South Africa, 9-14 July 2000

commercial sex workers (CSWs) is higher – gonococci were isolated from 32 per cent of them and chlamydia detected from 10 per cent.<sup>43</sup>

### **Tuberculosis**

With regard to TB, whereas the burden of HIV is increasing, reported cases of TB of all types has stabilised at between 10,000 and 11,000 annually since 1995. Ghana is expected to report about 50,000 cases annually.<sup>44</sup> Case finding of new sputum smear-positive TB cases and treatment success rates in Ghana are among the lowest in West Africa accounting for just below 50 per cent nationally.<sup>45</sup> At the district level, cure rates in 1999 ranged from 0 per cent to 70 per cent and defaulter rates from near 10 per cent to 85 per cent.<sup>46</sup>

### **Guinea Worm**

Reported cases of guinea worm disease declined by 96 per cent from 179,556 in 1989 to 7,402 in 2000 and by 17 per cent between 1997 and 2000. Three regions – Northern, Volta and Brong Ahafo Regions – now report about 96 per cent of the cases. These gains were recently reversed in some regions owing to a breakdown in water supply, surveillance and health service delivery. However the eradication efforts are now recovering.

### **Non-Communicable Diseases**

The major non-communicable diseases of public health concern are cardiovascular diseases, hypertension, diabetes mellitus, cancers, asthma and sickle cell disease. Prevalence in eye conditions is 4 per cent. Data on the burden of these diseases are limited.<sup>47</sup> Reported cases of diabetes are on the increase. In the earliest hospital outpatient survey at KBTH in 1958, the prevalence of diabetes was 0.4 per cent. It remained at this level some twenty years later.<sup>48</sup> Reported cases are about 50 per cent higher in females than in males. Diabetes accounted for 6.4 per cent of all medical admissions at the KBTH between January 1986 and December 1987 compared with 3.5 per cent a decade earlier.<sup>49</sup> A survey of male community members aged more than 15 years in 1964 showed a 0.2 per cent prevalence of diabetes.<sup>50</sup> Recent reports quote a prevalence of 4 per cent but data quality for this survey could not be checked in this review.

Reported facility cases of hypertension increased by 67 per cent from 58,677 in 1989 to 97,980 in 1998; OPD attendance increased by 39 per cent over the same period.<sup>51</sup> Unlike the four northern regions, the Greater Accra and Volta Regions have a disproportionate share of reported cases compared to their share of the national population. Preliminary results of the

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<sup>43</sup> Cited in: UN Theme Group on HIV/AIDS, NACP, Partners in HIV/AIDS. The response to HIV/AIDS in Ghana. UNAIDS, January 1999

<sup>44</sup> Personal communication, 15 April 2001

<sup>45</sup> NTP/MOH Ghana. National Tuberculosis Programme: Programme Review, May 1998. Final report, Sept 1998

<sup>46</sup> MOH & Health Partners. Consolidating the gains: managing the challenges. 1999 Health Sector Review. April 2000

<sup>47</sup> Annual Report for 1999. Public Health Division, Ministry of Health, Ghana

<sup>48</sup> Owusu SK. Epidemiology of diabetes mellitus in West Africa: incidence and prevalence studies. *Ghana Medical Journal* 1988; 22: ii-vi

<sup>49</sup> Adubofour KOM, Ofei F, Mensah-Adubofour J, Owusu SK. Diabetes in Ghana. In: Diabetes in Africa. Eds. Gill G, Mbanya J-C, Alberti G. FSG Communications Ltd, Reach, Cambridge, UK, 1997, 83-88

<sup>50</sup> Dodu SRA, de Heer NA. A diabetes case-finding survey in Ho, Ghana. *Ghana Medical Journal* 1964; 3: 75-80

<sup>51</sup> Centre for Health Information Management, MOH, Ghana. Top fifteen causes of outpatient morbidity 1989-1998

Non-Communicable Disease Survey in 1998<sup>52</sup> which employed the current WHO and International hypertension society criteria for hypertension defined as a systolic blood pressure  $\geq 140$  mm Hg and/or diastolic blood pressure  $\geq 90$  mm Hg revealed an age-standardised hypertension prevalence of 27.8%.

Common cancers in Ghana include cancers of the cervix, breast, liver, lymphomas and leukaemias. Reliable data on these cancers are largely unavailable. Screening of 712 women aged 20-80 years (mean 40 years) from the Greater Accra, Western and Upper East Regions from April 1996 to August 1997 revealed that 277 (39 per cent) had some breast abnormality including 13 (2 per cent) had clinically obvious cancers.<sup>53</sup>

The prevalence of sickle cell disease among children under one year of age is 2 per cent.

In spite of the high burden of injuries including road traffic accidents (RTAs) in Ghana for many years, they have not been appreciated as a major public health problem. According to the Ministry of Roads and Transport, Ghana is rated as one of the world's leading accident-prone countries. Ghana recorded 6,517 deaths and 51,877 injuries from road accidents between 1992 and 1998 yielding annual rates of about 1,300 deaths and 10,000 injuries through RTAs.<sup>54,55</sup> Although Ghana's motorisation level at present is about 30 per cent, its fatality rate is about 40 times higher than that of highly motorised countries.<sup>56</sup> Fortunately, the causes of drowning, fires, motor vehicle crashes, fall, poisoning, and violence are often predictable and preventable.<sup>57</sup>

## **5. Implications of disease profile for health service priorities and equity**

On the whole Ghana has made some gains in health outcomes, albeit slowly. U5MRs rates have been declining since 1993. The incidence of some diseases (notably vaccine-preventable diseases) has been declining whilst reported cases of others such as HIV and the non-communicable diseases have been increasing. Injuries, particularly those from RTAs have been an important cause of disease burden but have not been duly recognised as a public health problem. Infectious diseases constitute the highest burden of disease and mortality in the country particularly in adolescents and children. In infants, perinatal conditions, and injuries add to the disease burden. In adults, cardiovascular diseases are the leading cause of deaths. Among the infectious diseases, malaria, tuberculosis, pneumonia, diarrhoeal diseases, HIV and meningitis exact a heavy toll on the health of Ghanaians. HIV prevalence is now at the threshold beyond which it becomes exceedingly difficult to control further infection

The distribution of health and disease has not been uniform across various socio-demographic groups. The three northern regions and rural areas bear a higher burden of childhood and adult mortality, anaemia, malnutrition and some epidemics. Central Region is disadvantaged across several health indicators. Mortality and self-reported morbidity patterns by poverty are

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<sup>52</sup> Amoah AGB, Owusu SK, Adjei S 1998, Non-Communicable Disease Survey, Ghana Medical School/MoH

<sup>53</sup> Baako BN. Breast cancer screening in Ghana: is there a need? *Ghana Medical Journal* 1999; 33: 9-12

<sup>54</sup> Gobah T. Ghana rated among leading accident-prone countries. *Daily Graphic* 2000; July 27, 2000 No. 147971: page 1,3

<sup>55</sup> GNA. High rate of motor accidents in Ghana. Wed, 01 November 2000

<sup>56</sup> Donkor M. 6 die daily through accidents – report. *Daily Graphic* 2001; March 29 No. 148177: p. 1,3

<sup>57</sup> Satcher D. Injury: an overlooked global health concern. *JAMA* 2000; 284 (8): at <http://jama.ama-assn.org/issues/current/ffull/jsg00001-1.html>

inconsistent. As in other developing countries, the poor sometimes higher self-reported illness than persons from higher expenditure quintile groups. However, they have higher levels of malnutrition, diarrhoeal diseases, and poor sanitation. Mortality patterns vary inversely with level of education but morbidity patterns are similar to those by expenditure quintiles. While mortality differentials by sex slightly favour females, the latter experience maternal and gynaecological problems, which account for significant morbidity and disability. Some diseases such as AIDS and diabetes more frequently affect women.

### **Agenda for the Future**

The few diseases, which constitute a high burden of disease in Ghana – malaria, Tuberculosis, Respiratory Tract Infections - are largely preventable with existing technology. HIV/AIDS, non-communicable diseases and road traffic accidents are emerging as important health concerns in Ghana. These findings should guide the strategy for health development in the next 5YPOW. Health systems may need to be strengthened, human resources may need to be re-oriented to deal with these diseases and resources targeted. Communities and households will need to be mobilised to play an active role in the prevention of these major diseases.

### **III. HEALTH INTERVENTIONS AND SERVICE DELIVERY**

#### **1. Where we began**

In 1997, the common perception was that government, missions and other donor-financed Non-Governmental Organisations dominated health service provision. The government had, for some years, identified primary and preventive care and the major instrument for reducing morbidity and lengthening life. Although there had been substantial progress in developing a district-based package of primary services during the 1990s, this was still being delivered unevenly and was substantially dependent on vertical programmes. Moreover, there were important differences in approach to health service priorities being adopted by mission and other NGO providers.

Earlier investments in the health infrastructure by the government, mission and other NGO providers had resulted in an inefficient and inequitable distribution of facilities reflecting historical preferences, rather than current health needs. The overall result was great variations in the accessibility Ghanaians had to both preventive and curative care. In 1977 it was estimated that 70 per cent of the population lived more than 30 minutes away from a health facility. Although this proportion had declined by 1997, between 35 and 40 per cent, mostly in rural areas, still did not have easy access to any health facility.<sup>58</sup>

Overall, government expenditure on health remained largely focussed on curative services delivered by regional and tertiary hospitals. The linkages between hospital-based care and primary services delivered at the health clinic level were weak. Primary facility staffing was inadequate, poorly supervised and not well distributed in relation to either the infrastructure or health needs. Investment in the infrastructure and its maintenance had been inadequate so that the sector's physical assets were deteriorating. Households and communities played a limited role in the management of their own health services

#### **2. Priorities for the 5 Year POW**

As a result the first Five Year Programme of Work identified some key challenges in relation to service delivery:

- Inadequate financial and geographical access to services
- Inadequate service quality – variable quality, unresponsive to individual needs
- Vertical Implementation of services – leading to inefficient services with many missed opportunities, inconvenient opening hours, time consuming and confusing to communities.

#### **3. Achievements**

##### ***Improved access to care***

- Increasing geographic access to static health facilities.

Over the years two new Regional hospitals have been constructed and an additional one is nearing completion. Fifty-six new health centres have been built and eleven upgraded. A

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58. Reference here to source document

programme to renovate and re-equip existing health facilities was also instituted. Complimentary efforts included the extension of opening hours of facilities through the provision of 24-hour services and improving packages of intervention available by providing an appropriate mix of human resources and equipment. Much has been achieved to increase geographical access to communities.

- Provision of Outreach Services

The provision of outreach services to communities was emphasised in the MTHS as a major service strategy for child welfare services including immunisation: the number of outreach sites per health facility increased from 7 in 1996 to 8.3 in 1999. A specialist outreach programme to areas with limited access to services such as Ear, Nose and Throat (ENT) was also instituted. Health gains for communities increased in terms of EPI coverage and can be directly attributed to outreach services.

- Community Based Health Planning and Services (CHPS)

The CHPS programme<sup>59</sup> involves developing the capacity of the community to provide health services for it self with the support of a community health nurse. The core workers are community health committees and community health volunteers. The community health nurse or worker assists in delivering a package of interventions. This programme is important because it focuses on re-designing services for communities with the clear participation element. Plans are underway to scale up the experience, which has been piloted in some lead districts.

- Increasing Financial Access

Increasing financial access was a central strategy of the MTHS and 5YPOW. The MTHS provided public funding for immunisations, treatment of leprosy and other epidemic prone diseases. For such diseases, clients were not to pay for cost of services.

An exemption budget was also established for paupers (paupers budget within the regular GOG budget and decentralised to all public health service delivery points), and antenatal care, and care of the under fives and the elderly (exemption fund not decentralised to service delivery point). The operation of the fund was bedevilled by administrative bottlenecks and worked better in some regions than in others. There was little evidence of paupers benefiting and this will require more work.

- Additional sources of finance for healthcare

Interest has focused on the potential of insurance systems and much exploratory work has taken place. A number of small schemes have begun, but overall population coverage is still very low. For instance, there are private insurance schemes initiated in Nkoranza, Damongo, Dodowa and parts of the Eastern Region. The Calvary Methodist Church recently launched a scheme of their own.

### ***Integration of health service delivery***

Substantial progress has been made in integrating service delivery. First a minimum package of service interventions was defined and included prevention, promotion and curative services

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<sup>59</sup> MoH (199) Community Based Health Planning and Services: Handbook for Health Workers; Accra; Ghana

but excluded rehabilitation. The next step will involve elaborating the role of each of the levels and supporting the private sector to provide integrated services.

Secondly, the MOH successfully implemented a deliberate process of incrementally integrating previously vertical programmes like TB, MCH, and Leprosy control programmes into existing institutional arrangements for service delivery. This was supported by the health sector reform process, which emphasised the integration of support systems like planning, procurement, transport etc within a decentralised district health system.

Various challenges have emerged since the MOH adopted an integrated approach to service delivery. First, it has been difficult to ensure adequate visibility, attention and responsiveness to priority problems. For example, the resurgence of Guinea worm and poor performance of the TB control programmes have been blamed on the integrated approach to service delivery. Secondly, the integrated system did not pay adequate attention to conditions like mental, eye and dental health. As a result, balancing integration and enhanced effort/verticalisation will be required.

One of the successes of the last five years has been the recognition of the pluralist health sector. While previously much of the focus has been on the public sector alone, the present perspective includes supporting and facilitating private sector provision. The pluralistic nature of health service provisions requires the public sector to strengthen the stewardship role in service provision.

- The regulation of clinical practice

Various professional associations exist to regulate the practice of its members. The Medical and Dental Council, Nurses and Midwives Council and the Pharmacy Council are responsible for the registration and maintenance of up to date register of doctors, nurses and pharmacists respectively. This is the first step in developing high quality professionals. The second step in maintaining and developing quality, will require a re-oriented of regulation, making the continuous registration of members dependent on continuous education programmes. Furthermore, there is an emerging group of paramedics that have no arrangement for regulating their practice. This too will need to be tackled in the context of the next 5YPOW.

- Accreditation and continuous accreditation of health institutions

An elaborate system for registering private facilities exists in country. The Private Hospitals and Maternity Homes Board is responsible for registering and maintaining a register all the private hospitals and maternity homes while the Pharmacy Council is responsible for registering and maintaining a register of private pharmacies and chemical shops. No accreditation takes place for public sector facilities.

Once institutions are registered, there is however no formal arrangement for continuous accreditation of such institutions. In the case of public sector institutions no arrangement for accreditation exists. The intention to strengthen the inspectorate function of the MOH requires further urgent work in the context of the aim of improving quality services. Potentially all providers could be required to meet certain standards to be able to stay registered and could be downgraded if they do not.



- Quality assurance

Various other quality assurance initiatives have been undertaken, although only in the public health sector. Quality assurance teams have been established in a number of health facilities; patient satisfaction surveys have been carried out and mortality conference and maternal audits have also been instituted in public sector institutions. The next step would be to extend these services to the private sector and to all private facilities.

The establishment of the food and drugs board for registration and monitoring the quality of the drugs in the country is major step towards assuring the quality of health inputs. Within the public health sector, the adoption of an essential drug policy and the use of the CMS for bulk procurement and distribution have substantially improved the availability and quality of health care inputs within public health facilities.

### ***Improved equity***

A gender analysis and policy have been developed (Promoting Gender Equity in Health) and there are plans to mainstream this in service provision. The Ministry has also sensitised policy makers through participatory workshops, teams have been set up to look at policies and plans and capacity development has begun. The gender analysis has identified the importance of applying a poverty focus to health.

A poverty focus has begun to be developed primarily through the work on exemptions, although much remains to be done to make this an effective instrument for reducing financial barriers faced by poor people to accessing health services. Both equity and poverty considerations were important factors in the construction of health centres in the Northern and rural areas. Ghana has acted very quickly in relation to poverty in health – national budgets cover exemptions. While the budget has not achieved all they set out to do, there are nevertheless evidence of commitment to addressing poverty.

## **4. Challenges and opportunities**

### ***The demand for government health services***

Despite substantial investments in expanding and upgrading the network of government health facilities, evidence for increased uptake of health services is mixed. Most attention has been paid to making health services more accessible geographically. There are no reliable estimates of the proportion of the population, particularly the poorer groups in the population now living within 30 minutes of a health facility or within 8-kilometre radius.

More information is available about trends in the demand for services from government facilities. The uptake of specific interventions such as family planning, as measured by condom use has been rising from 480,170 in 1997 to 613,806 in 2000. EPI coverage as measured by DPT3 has also risen from 51 per cent in 1996 to 71 per cent in 1999. This is probably the result of increased outreach activities, rather than increased investment in new facilities.

However, outpatient encounters at public institutions has remained constant at 0.36 per capita per annum between 1996 and 1998, fell to 0.32 in 1999 and rose to 0.42 in 2000<sup>60</sup>.

It is not clear why investments in improved service access have not yet generated increased utilisation. One possibility is that the costs of care at government facilities, in relation to other

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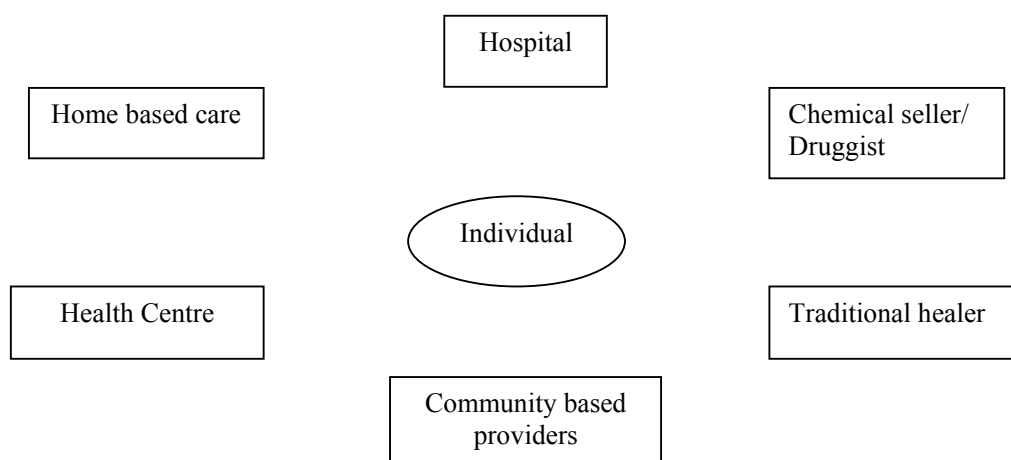
<sup>60</sup> Centre for Health Information Management, MoH, Ghana (2001) A Review of the 20 Sector-Wide Indicators; Accra

sources of health services, are deterring people from seeking care at government facilities. If true, this is particularly serious as it suggests the failure of an effective exemption system. Another, not mutually exclusive, is that people's perception of the quality of care provided at government facilities, in terms of staff attitudes, waiting times and drug availability, is such that they seek care elsewhere. However, there does not appear to be a strong positive relationship between the substantial investments in improved access to government facility-based services and demand for them.

### ***Household choices***

Households have a number of choices available to them. These are illustrated in Figure 1. It is important that the reasons for these choices are clarified before more public investment is made in health facilities and before the government's comparative advantages and strategic position are defined in the sector in relation to other providers

**Figure 1: Choices for health service consumers**



The choice of health provider takes place within a socio-cultural context, and is influenced by individual held beliefs. Some believe conditions like convulsions and epilepsy to be spiritual and requiring spiritual attention, while others believe that herbs are efficacious at treating haemorrhoids.<sup>61</sup> Household members are active in their choice of health providers and should also be actively involved in the design of their health services. This is one area where the health sector has made very little progress and this will need to be addressed in the next plan. The historical approach has been a patronising one characterised by the assumption that the community is ignorant and needs health education. It has also been assumed that they need no voice in their health services.

Factors influencing the choices of service/provider at the household level/ demand side have been identified as:

1. Competence of staff
2. Availability of drugs and logistics
3. Perceived cost and benefits
4. Outcome of treatment

<sup>61</sup> Amekudzi et al, 2000, Mapping of Health Inequalities – A community level assessment using Participatory Rapid Appraisals Methodologies

5. Quick responsiveness to call (waiting times)
6. Respect for patients (good staff attitudes)
7. Patients being informed of their diseases
8. Follow up when patient is cured

Future sector strategies need to be demand-side driven rather than assuming that the supply of services of a given type and volume is sufficient to ensure that they will be utilised.

**Influencing the choices that individuals make concerning their well-being with the appropriate support of the community is going to be a critical redirection of the health care system for the coming five years**

Over and above these, there is the need to create opportunities for households and communities to participate a lot more in health services. For example, households and communities can be helped to participate in quality assurance process and service on hospital management and District Health Management Teams.

- **Gender as a Factor in the Choice of Service**

Although men and women experience poverty and suffer from the same diseases, women tend to bear proportionate part of the burden due to structural factors in society that frequently make them dependant on men and given them lower status<sup>62</sup>. Men's works are judged to be productive and valued. Traditionally, women have the responsibility as main health providers in their families and homes. They are also responsible for child care of the elderly, obtaining fuel, preparing meals and maintaining the home which are all task demanding and deemed important in society but not valued.

These and other factors such as transportation to service provision facility, cost of time often combine to impinge on their choice of services. They also do not have the resources needed to access health care services and this compels them to use the traditional health delivery system.

Family members particularly may also prevent women access to health care services. Additionally, women suffering from stigmatised diseases often delay in seeking for care because of fear of divorce and stigmatisation. Men are often poorly informed about health issues, although they are the major decision-makers on family nutrition; care giving as well as utilization and access to health care.

The organization of the health care delivery system limits the use of services. Specific areas of concern are:

- Lack of gender sensitivity of health providers at all levels particularly poor staff attitudes to clients.
- Lack of gender sensitivity at service delivery point including lack of privacy for clients and inappropriate opening hours for women.
- Inappropriate balance between males and females providers at service delivery points. At the operational level, staff are predominantly females (almost 70 per cent) and this is known to be a barrier to male attendants at antenatal clinics, delivery sessions and child welfare clinic.

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<sup>62</sup> MoH/HRU 1999 Promoting Gender Equity in health – A Framework for Action; MoH, Accra; Ghana

Gender-based domestic violence is a major health issue and is often used to subjugate women. Approximately, 54% of women have experienced some forms of violence. A wide range factors has been identified as being the cause of violence. The treat and fear of violent behaviours of men deny women's control over their own sexual decisions, and create pressures that force them to undertake risky sexual behaviours, which has serious implications on their health. Victims of domestic violence lack the ability to use contraceptives for protecting themselves from unwanted pregnancies and Sexually Transmitted Diseases<sup>63</sup>.

### ***The sector's growing pluralism***

One of the great successes of the first Five Year Programme of Work has been the increasing recognition of the variety and contributions of non-government providers (see table 3.1). However, a challenge for the years ahead is to find ways in which their potential to deliver high-quality services can be exploited within an overall sectoral strategy.

Although the government owns the higher level hospitals: the teaching and regional hospitals, private sector provision emerges below the higher level institutions, from district hospital downwards. Less than half (47 per cent or 106 of 226) of all hospitals are owned by government or quasi government organisations. The rest are mission (49/206) and private hospitals (71/206). *[Is the total 206 or 226?]* Health centres are all government owned. Below the level of the health centre however, the private sector becomes dominant again. Community-level services are the most pluralistic. TBAs focus on deliveries, chemical sellers sell drugs and give primary medical care, CBDs distribute family planning inputs and traditional practitioners are even more specialised into bonesetters, wanzams etc. This mix of community based providers are the front liners in the medical care system. It is estimated that, up to 80 per cent of clinical encounters are preceded by an encounter with a community-based provider of some sort (see tables 3.1 and 3.2).

The substantial role and contribution of government health centres has been well established. Health centres are structured to provide an integrated package of preventive, clinical and maternity services; they have been at the heart of service delivery in the past and it is expected that this will continue in the future. Health centres will however need to be re-oriented to provide supportive supervision to community level providers.

**Table 3.1: A pluralist health service: providers at each level of the health delivery system**

Level	Type of Provider		
	Public Health	Clinical	Maternity
Community	VHW, VHC, CHN, Primary care workers, Wansam Committees, Private Laboratories condom outlets	Chemical seller, Pharmacy shop, Traditional healer, CHO,	TBA, CBD (FP), CHOs and CHNs
Subdistrict	Health centre, MCH clinic, Environmental Health Officers, Private refuse collectors	Health centre, pharmacy shop, Private clinics	Maternity home, MCH clinic, Health centre

<sup>63</sup> Garshong B 1998 A Comparative Study on Violence Against Women in Greater Accra. HRU, MoH, Accra, Ghana

District	District Hospital and Mission hospitals		
Regional	Public health reference lab	Regional Hospital	Regional Hospital
National		Specialised Hospital, Teaching Hospital	Teaching Hospital

District hospitals provide both OPD and inpatient services. Essentially, district hospitals are general hospitals and must continue to be manned by health teams with an orientation towards care rather than advanced technology and specialists. Regional, specialised and teaching hospitals have also been set up to provide secondary specialised and tertiary care respectively. While the original intention was for these facilities to provide advanced technology specialised care, the reality is that, a substantial proportion of services provided are primary care as well.

**Table 3.2: Number of health facilities<sup>64</sup>**

FACILITY	NUMBER
Teaching Hospitals	2
Health Centres	558
Chemical Shops	4,000
Regional Hospitals	9
Clinics	1085
Traditional Birth Attendants (TBA)	N/A
District Hospitals	91
Maternity Homes	320
Traditional Practitioners	N/A
Other Hospitals	124
Pharmacy Shops	800
Village Health Worker (VHC) , Community Based Distributors (CBDs) etc - information not available	

All this suggests that the further development of government financed and provided services, and particularly further investments in government-owned and staffed facilities, should be driven by a more strategic view of the public role, a greater understanding of healthcare seeking behaviour and a greater awareness of the contributions that are made and could be made by non-government, providers.

## 5. The agenda for the future

Although a great deal of progress has been made, there is much left to do. The further development of the health sector will be shaped by the policies of the new government, which place considerable emphasis on reducing the financial barriers to health service access.

- The needs of the household must be brought to the fore
- At the current level of development, it may be that facility-based health care is not the most cost-effective way of extending access to poor people in remote areas. There is the need to place more emphasis on community-based care. This would require a different approach, different HR strategies and different support and supervision strategies.
- There is substantial scope to commission private sector providers (both formal and informal) to provide a broader package of services in some areas and to improve quality.

<sup>64</sup> Annual Report 1999, MoH

- Public sector agencies would be required to facilitate the operations of the different players in health service provision

## **Pix: Home Management of a Sick Person**

## **IV HEALTH RELATED INTERVENTIONS AND INTERSECTORAL COLLABORATION**

### **1. Where we began**

The health of a national requires much more than the delivery of health services. There are many other known determinants of health, which if put together are probably more important to health of the nation than just health services: female education, water and sanitation and poverty reduction. However, the MoH has not invested much time and effort into developing cross-sectoral activities to address these priorities. Sanitary officers that provided service on environmental sanitation have been transferred to local Government. No formal arrangement existed for the MoH to actively engage other sectors in health care delivery. In future the Ministry of Health, freed from the direct implementation will need to take up this role more through putting health on the agenda of other sectors. It will recognise more strongly the determinants of health and deal with them through inter-sectoral action.

### **2. Priorities for the 5YPOW**

The Medium Term Health Strategy demonstrated recognition by the MoH of the importance of intersectoral collaboration as a means of involvement in health related interventions. It also demonstrated commitment by specifically making intersectoral collaboration one of its five objectives. The 5YPOW identified five areas where developments were to be monitored and joint work would need to take place:

- Poverty Alleviation
- Limited access to water and poor sanitation
- High population growth
- Poor nutrition
- Low female literacy

### **3 Achievements & Challenges**

#### **Poverty**

Statistics from the Ghana Living Standard Survey<sup>65</sup> suggest there has been some decrease in overall poverty. While the overall level of poverty may now be some 40 per cent of the population (from 5% in 1991), in the northern region 70% of the population, in Upper West 84% and in Upper East 88% of the population still live in poverty.

Poverty has been recognized as the major barrier to health. As a result, MoH has been reviewing the allocative criteria for inter-regional financial resource, although a new allocative formula has yet to be agreed. It also implemented fee exemptions for the poor. Its concern with equity is also a concern with poverty, and its investment in geographical access is similarly another poverty strategy. However the various initiatives have not been pulled together into an overarching “pro-poor” policy, and practice on the ground also needs review.

At the intersectoral level, MoH has also been actively involved in the design of the National Poverty Reduction Programme, which aims at improving the living standards of the poor in Ghana. Both the poverty work in health as well as the intersectoral work shows substantial commitment to the difficult task of alleviating poverty and the consequences of poverty.

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<sup>65</sup> Ghana Statistical Service 2000, Ghana Living Standards Survey – Report of the Fourth Round (GLSS 4)

Further work is planned in the empowerment of households and communities. A community participation strategy will need to be developed to guide the process of empowering households and communities in relation to their health. Greater emphasis will need to be placed on those vulnerable groups such as the poor, the young and the elderly as well as communities involvement in planning, implementation, monitoring and evaluation of health services.

### **Access to Water & Sanitation**

According to CWIQ/GLSS data, there has been no increase between 1991 and 1998 in percentage of households with access to piped water or in the percentage of the population (48% in rural areas) which relies on water from natural sources (nor has there been any change in the proportion of the population with no appropriate toilet facilities). These remain important health related issues to be addressed.

Health inspectors were transferred to the MoLG in 1995 as part of the decentralization process and strengthening of capacity for managing public health issues. However, there were no strategic discussions in relation to a more comprehensive approach to working together for common objectives on access to water and sanitation.

The Accra Metropolitan Environmental Health Initiative (AMEHI) may provide lessons for multi-sectoral approaches to urban sanitation. Some rural sanitation projects involving the provision of pit latrines, household KVIPs etc. are funded by NGOs and other donors also exist. These generally involve Local Government Community Development with minimal participation by the MoH.

Regarding potable water provision, MoH has had very little input if any. However, rural water programmes generally have an education component involving operation and maintenance and health and sanitation. For the past year, a multi-sectoral guinea worm committee has been in operation. The Ministries of Works and Housing and Local Government jointly chair this committee. The committee has made guinea worm 'endemicity' a major criterion for water provision. This committee provides a clear lesson: that, for effective ISC, it is necessary to identify a clear and definite objective around which the various stakeholders can work.

### **Poor Nutrition**

The MTHS and the 5YPOW identified four areas for collaborative action to improve food and nutrition. These were:

- Public education on healthy foods and feeding practices
- Salt Iodations, Vitamin a supplementation and other micronutrient supplementation to populations at risk.
- Training of health and agricultural field workers on better nutrition
- Promotion of basic nutrition as an integral part of the School Health Programme through the training and regulation of school based food vendors and the promotion of nutrition education.

An Act was passed for salt iodisation and a Legislative Instrument passed on breastfeeding. However, enforcing these provisions have been less than adequate.

Food supplementation has largely been implemented by the World Food Programme and incorporated in foods distributed through the Ministry of Health. To date, this programme



has not developed any linkage with the Ministry of Agriculture Extension Services to ensure that the necessary local component for sustainability is developed. Together with the Ministry of Agriculture, Universities and other experts, MoH led the process to develop a National Nutrition Policy<sup>66</sup>.

Even though some work has been done as mentioned above, poor nutrition remains an important health issue in the health sector. There is still considerable chronic malnutrition among Ghanaian children. Over a quarter of children (26%) are stunted. Children in rural areas are twice as likely to be stunted as in urban areas, and children in the three northern regions are most likely to be stunted.

### **Education**

The MTHS identified female education as the main object for Inter-Sectoral Collaboration (ISC), but not much has been done in this direction. No meetings or advocacy activities have been organized. An area that has seen some collaborative action is the School Health Programme (SHEP). Under SHEP, collaborative institutional arrangements were made. A Steering Committee comprising representatives of various Ministries and agencies was established.

The MoH shared some donor resources with the Ministry of Education (MoE) to run the SHEP. In spite of these, SHEP faced many problems and has not functioned as planned. First, many Ministries and Agencies did not send senior persons to serve on the steering committee, so the steering committee did not have the influence it was expected to have. SHEP relied mainly on MoH sources to fund activities. The MoE acted as if it was a problem and a programme of MoH. This was compounded by some confusion over whether the MoE or the Ghana Education Service was responsible for supporting SHEP.

The problem of SHEP are really the generic problems of Inter-Sectoral Collaboration (ISC): the ownership and funding of and responsibility for, inter-sectoral programmes.

### **Population**

The MoH has been prominent in the activities of the National Population Council (NPC). Before the establishment of the current NPC, the MoH was responsible for (either directly or charged with co-ordinating) most of the population activities. The NPC has provided the institutional framework for ISC and is accepted as being responsible for co-ordination. In this framework, the MoH has concentrated on service provision for family planning and safe motherhood and on demand generation for family planning services through its IEC programmes. It was decided that MoH should concentrate more on long term (surgical) contraceptives whilst other agencies such as the Ghana Social Marketing Foundation (GSMF) concentrate more on short term methods.

The MoH has also been involved in the conduct of health research, and participated in the formation of health and population policies, programmes and activities. The NPC's institutional arrangement also provides a lesson on the need for having clear institutional arrangements for intersectoral collaboration. However, NPC itself requires additional capacity strengthening to co-ordinate better the activities of the many stakeholders in population activities.

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<sup>66</sup> National Policy and Strategy for Nutrition Enhancement, 1999, MoH, Accra

## **1. Intersectoral Collaboration and Community Participation**

### **Achievements**

Working with District Assemblies was seen as a mechanism for effecting intersectoral collaboration and community participation at the district level. The MoH therefore made this a sector priority in the 5YPOW. In this direction, several studies were undertaken to assist in understanding the issues in intersectoral collaboration and community participation. A synthesis report on the key issues has been produced<sup>67</sup>.

It is noted that many District Directors of Health are active in the social services sub committee of the assemblies and in many cases are secretaries to the sub committee. The District Assemblies also provided assistance in the implementation of programmes such as Expanded Programme of Immunisation (EPI) and Guinea worm eradication programme.

### **Constraints**

The relative lack of progress in health related ISC might be attributed to a number of causes. These include;

1. Lack of identification of common needs, goal and objectives
2. Absence of any forum for consultation and decision making at the national level and weak institutional arrangement at other levels especially the district level
3. Absence of clear definitions of roles and responsibilities
4. Absence of integrated planning, monitoring and evaluation of programmes
5. Absence of resources earmarked exclusively for intersectoral programmes
6. Poor communication and co-ordination between sectors
7. Limited involvement of beneficiary communities in programme designing, planning, and monitoring and evaluation.
8. Apparent conflict in the legislative provision for intersectoral work (Act 525, Act 327 and Act 462).

## **5. The Agenda for the Future**

- Re-defining the MoH of improving health

The MoH needs to redefine its role in providing health interventions and to re-examine many of the health related issues that impact on health. Such issues include conducting health impact assessments, providing potable rural water, wearing seat belts, and many others. Many of these issues lie outside the MoH domain. The MoH should consider how its resource allocation can be re-organised to work in partnership towards the achievement of the goal of improving health.

- Strengthening institutional arrangements

Outside of the Cabinet, there is no Ministry with a mandate to bring sectors together. MoH must, for now, take the initiative and develop its own plans for ISC. These plans must operate at all levels – national, regional and district and work through inter-ministerial committee for specific areas identified as needing effort between ministries – for example on Guinea Worm, poverty alleviation and SHEP. It is possible to organize several sectors around

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<sup>67</sup> Seddoh A. T., Adjei S, Addai E et al, 2000, Health/Local Government Linkages: A Synthesis of Key Issues; MoH/GHS; Accra

a subject provided they all see and agree that there is a common objective. Ultimately, the district level as the operational level becomes critical in fostering work between sectors and must be strong enough to take on this function.

As part of the activities associated with Ghana applying for the HIPC status, a multisectoral PRSP initiative has begun. This initiative is aimed at identifying new poverty focused strategies and indicators and new ways of engaging with civil society to jointly reduce poverty. It is to be hoped that the PRSP process will provide high level leadership for intersectoral collaboration to tackle poverty.

- Strengthening consultation

There is the need to develop guidelines for consultation with key stakeholders. These should spell out modalities for generating common interest and commitment, for deciding funding arrangements, contributions, indicators and joint monitoring and for the formation of networks around common issues and common objectives. Periodic consultations and reporting on common issues for ISC need to be maintained. Developing capacity for participatory planning and monitoring will be another area for consideration.

## V ORGANIZATION AND MANAGEMENT OF THE HEALTH SECTOR

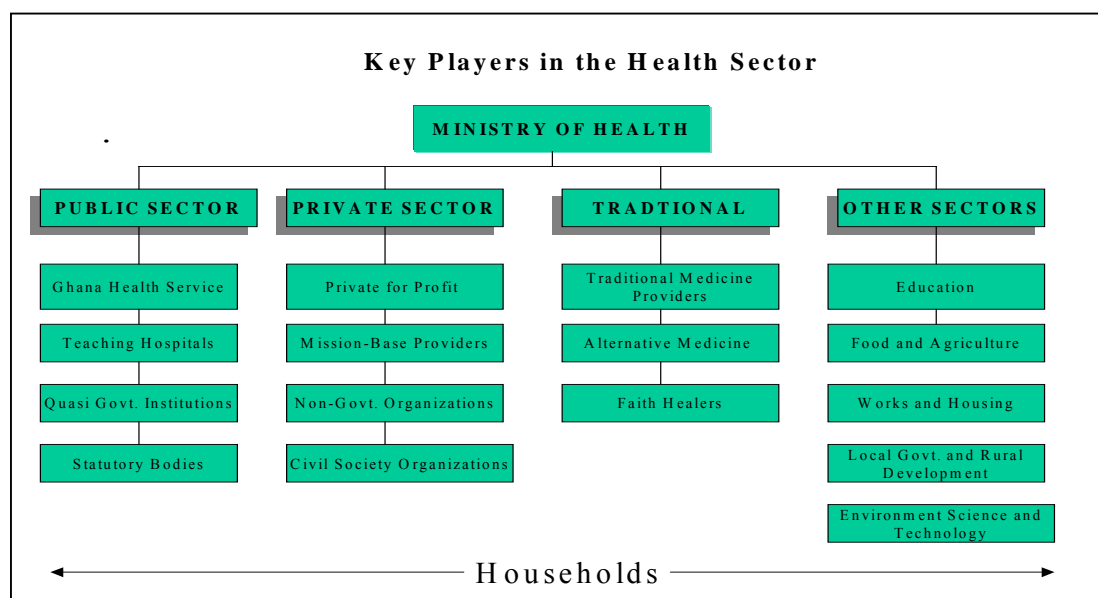
### 1. Where we began

Although considerable progress had been made in developing district level management capabilities and in decentralizing health budget management, in 1997 it was judged that improving organizational arrangements still further could generate significant efficiency gains. Improved efficiency in the health system as envisaged under the MTHS was to be achieved through various strategies. These include;-

1. The institutional reorganization of the MoH by creation and separation of the Ghana Health Services and Teaching Hospitals as autonomous agencies of service provision from the Ministry of Health, thus leaving the Ministry to focus on the purchasing, regulation and coordination of service delivery.
2. Improvements in management systems by creating decentralized planning and budgeting system, strengthening the financial management and performance monitoring systems and investing in overall management development and capacity building within the sector.
3. Reviewing the regulatory environment by strengthening existing regulatory bodies and establishing new ones where appropriate, as well as reviewing existing laws and enacting new ones.
4. Improving the co-ordination of development partners and ensuring coherence of their activities through the establishment of the Sector-Wide Approach (SWAP).

### 2. The Reorganization of the Health Sector

The key players involved in the health sector are shown in Fig 5.1



## 1. The Ministry of Health (MoH)

The MoH is the government agency charged with the responsibility of providing overall health policy direction for all players in the country's health sector. Like all Ministries, it is a civil service organization with functions outlined in the Civil Service Act 327, 1993. Prior to 1996, the MoH in addition to playing this function was also involved in direct provision of services as well as in the regulation of those services<sup>68</sup>. It was also responsible for training of staff (pre-service, post-basic and in-service training) as well as resource mobilization and disbursements within the sector. The Ministry was unable to perform all of these functions efficiently and effectively. There was a need to reassign them to different agencies with the MoH retaining overall responsibility for policy, resource mobilization and monitoring of outcome of healthcare interventions. What was envisaged ultimately was a purchaser-provider split with the MoH as the purchaser and regulator of service provision. Under this arrangement, the other agencies - Ghana Health Service – (GHS), Teaching Hospitals/Specialised Institutions (TH/SI), Quasi Government Organizations, and Private Sector including Non-Governmental Organisations -NGOs and the traditional system) would become service providers while statutory bodies set out the 'rules of the game'.

### Put in Box: Role of MoH

- Policy for all players in health
- A strong and effective voice in intersectoral action
- Resource Allocation to all players
- Information
  - For advocacy, coordination and management
- Regulation

### Achievements

During the period under review, a team was formed by the Office of the Head of Civil Service to examine critically the functions of the MoH and the new role it was to play under the reorganization of the sector. The report of the committee was published in 1998<sup>69</sup>. The report highlighted the new functions and organizational structure of the Ministry. Subsequently, the Directorate of Traditional Medicine was added to the four divisions proposed by the team.

### Challenges

The full establishment of the MoH has been delayed. No senior appointments had been made at the time of this review. The tenets of the organisational manual of the MoH are not yet operational. As a result the MoH's role as envisaged under the MTHS is not taking place. As currently organized, the MoH has no internal mechanism to co-ordinate and guide its agencies to develop proactive commissioning and contracting arrangements with them. The organizational manual also provided no answers.

## 2. Agencies for Service Provision

Generally these agencies can be grouped into five, namely the government sector, the quasi-governmental, private and traditional system and other health related sectors. The government agencies consist of the Teaching Hospitals and the Ghana Health Service set up under Act 525 and quasi governmental organizations.

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<sup>68</sup> Health Systems Analysis – A Review of the Management and Delivery of health Services in Ghana – Draft Task Team Report February 2001

<sup>69</sup> Ministry of Health; Organisational Manual, 1998: MSD/OHCS; Accra; Ghana

(i) *Teaching Hospitals*

**Achievements**

Probably because Teaching Hospitals had management boards before the passage of Act 525, they seem to have moved quickly to increase the scope of their management autonomy. Achievements that have occurred under Act 525 include attempts at internal decentralization using a sub-BMC concept and increased financial autonomy. The sub-BMC concept provides for decentralized management of the clinical departments and are justified on account of the fact that, sub BMCs in teaching hospitals are as big as hospitals elsewhere in the country.

**Challenges**

Implementing the sub-BMC concept has been hampered by weak administrative support within the clinical departments and unclear reporting relationships between Medical School staff and the Chief Executives of Teaching Hospitals. There is also the wider issue of the role of teaching hospitals in particular, and tertiary care in general in the health sector in Ghana. For example, inherent in the reorganization of the MOH is the expectation that teaching hospitals will provide tertiary services and that this will be rationalized in the context of other levels of care. To a large extent, this is still outstanding. Clear outputs have not been defined for Teaching Hospitals, modalities for referral between the GHS and the teaching hospitals have not been determined and the teaching hospitals still provide a significant amount of primary care services that can be obtained from lower levels.

(ii) *The Ghana Health Service*

**Achievements**

After an initial delay of about three years, the GHS now has a Governing Council, a Director-General and a Deputy Director-General. The process for appointing Headquarters and regional directors has been initiated. A draft legislative instrument to implement Act 525 has been prepared and is under review. New conditions and scheme of services have also been developed although they have yet to be adopted. Preparations towards building of new offices for the GHS are also well advanced.

**Challenges**

The outstanding organizational challenge of the GHS is to develop its corporate identity as a provider of service especially primary and secondary service. At the national level, because the MoH is not fully established and appointments of its directorate delayed, the GHS has found it self managing the MoH. The directors at the national level have been performing the work of the Ministry in ways that compromise their own work as an agency charged with service provision.

**3. Private Sector**

Private providers are made up of NGOs that provide essentially public health services such as family planning services, the mission institutions that are essentially curative service providers but also provide public health services, and the private for profit organizations that are predominantly curative based.

*Mission*

Mission institutions are a collection of organizations operated by the Christian community including the Catholic Church and the Muslim community. A Memorandum of Understanding, which provides a loose basis for collaboration, has been signed with CHAG. However, the outputs expected of CHAG organizations are not defined clearly and no monitoring system has been established to ensure that these outputs are delivered.

#### *Private for Profit Providers*

There are several privately owned and independently managed hospitals and clinics, together with a large number of individual practitioners offering private services. The Society for Private Medical and Dental Practitioners provides an arrangement for collaboration among private medical practitioners. There is also a limited amount of collaboration between the Ministry and the private practitioners in service provision. Recently some attention has been devoted to the development of a formal framework for collaboration with MoH but for now, this is relatively limited in scope.

There are no formal contracting or commissioning arrangements in place for core service delivery. Private medical practitioners are said to be concentrated in urban areas where middle and upper income groups most likely to provide demand for their services are concentrated. The potential to involve private-for-profit providers in contracting arrangements that would encourage them to practice in rural and peri-urban areas has been discussed but not explored in any detail.

#### **4. Traditional Medical Practitioners**

Traditional and herbal remedies constitute the first line and commonly the only source of treatment for most Ghanaians. Consequently, the objective of the MTHS was to promote traditional medicine, make them safe and integrate the service into the allopathic health system.

The Traditional Practice Act, 2000 (Act 575) was passed and the Traditional Medicine Practice Council and Traditional Medicine Directorate were established during the period of the first 5YPOW. The Centre for Scientific Research into Plant Medicine (CSRPM) increased its testing and manufacturing activities. The result is that several herbal preparations have been declared safe and are being produced in acceptable formulations. Several trials have been conducted on herbal preparations claimed to be effective against HIV/AIDS. These tests are not yet totally conclusive.

#### **Challenges**

Overall progress towards mobilizing the potential of private providers to contribute to government policy objectives in a coherent way has been slow. The commissioning arrangements developed with CHAG are poorly specified and inadequately managed. Without properly specified and regulated purchasing agreements with the GHS, public-private partnerships will remain under-developed.

Making traditional medicine safe and integrating it into the general health system has been equally slow. Specific issues include the weak directorate of Traditional Medicine Directorate, which is poorly staffed and needs to be strengthened as evidence of the seriousness of the MOH to improve the status of traditional medicine. In addition, areas of focus for herbal medicine intervention need to be in order to promote the links between herbalists and clinical researchers.

More generally, the effective implementation of public-private partnerships requires strengthening the health sector's capabilities in service agreement design, negotiation,

management and supervision, which is new to the historical culture of government health service financing, and provision in Ghana. However, this is in line with the separation of purchasing and providing functions envisaged by Act 525.

## **5. Statutory Bodies**

### **Achievements**

Statutory bodies were established to regulate the ethics and the standards of practice as well as the standards of premises. The main policy objective was to include the Medical and Dental Council (M&DC), the Nurses and Midwives Council (N&MC), the Food and Drugs Board (FDB), the Pharmacy Council (PC), and the Private Hospitals and Maternity Homes Board (PHMHHB). In recent years, two more laws have been passed for Mortuaries and Funeral Homes and Traditional Medicine Practice and the Council.

### **Challenges**

In the 5YPOW, regulation was seen as a strategy to improve standards and quality of staff, their practice and their facilities. During the period, none of the earlier laws was reviewed. Several of the laws are many decades old and have outmoded aspects. Also, the provisions are not uniform. For example, the N&MC examine, register and license nurses. The M & DC do not examine doctors even though they have input.

Apart from the M&DC and the N&MC which register and license all doctors and nurses respectively, most of the activities of the statutory bodies were limited to the private sector. Public sector facilities are not made to conform to standards.

Moreover, the increasing pluralism of the sector requires a regulatory framework that depends not only on legal sanctions but also on incentives and is appropriate to both public and private sector providers. Many of the incentives required may be embodied in commissions or service level agreements that specify the quality as well as the volume and price of services to be delivered. In other cases the incentives of quality assurance, training and benchmarking can be used.

At the moment, there is no central focal point with the responsibility for supporting the statutory bodies or for developing a regulatory regime. This might be because statutory bodies need to be independent. In spite of this, there is a need to provide a focal point up on broader issues related to regulation. Alternatively, or in addition, a regular forum that brings the statutory bodies together and requires them to report on progress that might be used to keep the issue of regulation active and to continuously support and improve regulation.

This is a responsibility the MoH should take seriously. Experience from other sectors suggests that increasing pluralism requires more effective regulation, that the longer this is left the greater the costs of improving service quality, that while professional self-regulation is important, it tends to favour providers over consumers and that the most effective regulatory centre is independent of both professional and political influence. There may be a case for establishing an independent health service regulator under a service agreement or the enabling of the formation of health service consumer watchdog groups by civil society to help keep watch over service standards.

## **3. Managing the Sector**

### **1. Improving Planning and Budgeting**



At the onset of the 5YPOW, overall capacity for planning and budgeting was thought to be weak. Other outstanding issues identified included the fact that budget ceilings did not incorporate donor funds. There was still over-centralization particularly in the use of donor funds. Also plans were not insufficient linked with budgets.

The 5YPOW identified planning and budgeting as a key component of the Common Management Agreements<sup>70</sup> for the SWAp and stressed the need for capacity building in this area. It also emphasized linking planning and budgeting to policy development, performance monitoring and evaluation.

In the four years of implementation substantial progress has been made in improving the overall capacity for planning and budgeting within the sector. The introduction of the BMC concept and full decentralization to BMCs of decision-making in relation to a proportion of donor funding (i.e. funding channeled through the pooled fund) has led to a more operational link between plans and budgets.

Health sector planning and budgeting capacity has been further enhanced by a wider GoG public sector reform. Specifically, the GoG introduced a Public Financial Management Reform Programme (PUFMARP) in 1996 and the Medium Term Expenditure Framework (MTEF) programme was launched in the late 1997. MoH was selected as one of the pilot ministries and benefited from several training programmes. Other still outstanding issues include weak output-budget management, allocating or linking budgets to sector priorities, and improving budget predictability.

The current national policy environment also calls for coherent linkages between GoG public sector reform initiatives (PUFMARP), MTEF etc.), and reform initiatives in the sector. In particular, health sector planning and budgeting needs to respond to the issue of composite budgeting at the district level. This needs a careful policy dialogue between health and other stakeholders such as MoLG.

## **(ii) Monitoring and Evaluation**

### **Achievements**

Three mechanisms were adopted for monitoring performance:

- Monitoring the performance of individual BMCs
- Monitoring the performance of the sector; and
- Monitoring the health status of the population.

BMC specific indicators were developed for each BMC, whilst 20 indicators were developed for the sector-wide monitoring. Health status indicators were also specified. Data collection, collation and analysis, and interpretation and use of the results to monitor progress were to take place at all levels of the health system.

Annual reviews of the sector have taken place under MoH leadership but with active participation of the health partners. These reviews have increasingly become strategic an sector wide, through examining performance and reviewing direction and vision of the health sector. Important debates have taken place on equity, inequalities and the role of other stakeholders in health – such as NGOs, civil society and local communities.

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<sup>70</sup> MoH, 1996 Common Arrangements for Implementation of the Medium Term Programme of Work (1997-2001); Accra

Overall, the issue of performance and performance monitoring has been put on the national agenda. District, regional and national levels conduct annual reviews and organize performance hearing. Performance hearings bring key players together to review actual performance, and discuss achievements and problems.

### **Constraints**

While BMCs' performance reviews are a useful first step, there is now the need to link it with planning and budgeting. Linking performance reviews to some form of incentive would be also useful. Rapid Participatory Appraisals need to be carried out more widely and their findings applied in the management of performance. There has so far been little attempt to link the community's perception of performance into the system for overall management.

The twenty sector wide indicators have come under considerable pressure and need to be reviewed. For example, several of the indicators such as use of insecticide treated bed-nets do not allow easy national collection of data. There is also no data from the private sector and NGOs.

### **3. Co-ordination of Development Partners**

The relationship between the MoH and Development Partners has evolved from intensive discussions and debate during the development of the MTHS and SYPOW. The arrangements sustaining this relationship were articulated in the Management Arrangements for Implementation of the Medium Term Programme of Work; the Memorandum of Understanding; and the Code of Practice for MoH and partners.

### **Achievements**

A strong arrangement for policy dialogue has been achieved, characterized by two annual joint summits, quarterly business meetings between the MoH and partners, and monthly partners meetings. The proportion of donor allocation into the Health Fund continues to increase and donor reporting has also improved. Substantial progress has been made to establish joint management arrangements including joint reviews and monitoring and joint auditing.

### **Challenges**

A substantial proportion of funds for health sector activities is still outside the Health Fund. The management of technical assistance still remains donor driven. Lessons have been learnt about building partnerships with development partners, but less has been learnt about building partnerships with local NGOs, with civil society<sup>71</sup> and with other sectors. The emphasis needs to change.

### **4. Contracting of Services**

Apart from the contracting arrangements with the CHAG institutions, several services have been considered for contracting out. These include the hotel services in hospital such as cleaning and kitchen. Not much progress has been made in contracting out these services. However, security services have been successfully contracted out to private security companies. Several hospitals have developed private wards where prompt care and better hotel services are provided at higher charges. The Korle Bu

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<sup>71</sup> DFID/MoH 2000 Promoting the Participation and Financing of Civil Society: An Options Appraisal of the Ghana Health Sector, Accra; Ghana

Teaching Hospital has completed plans to establish a private practice facility within the hospital.

All the schemes to contract out or introduce private practice standards need specific capacities to be developed. It is necessary to have private entrepreneurs who have the capacity to deliver what is required. The MoH needs to develop the capacity to define and manage service contracts; to measure service output; and to apply sanctions promptly and fully when necessary. The absence of these capacities probably explains the little progress made in this area.

## **5. Regulation**

An important part of the MTHS was to strengthen the regulatory systems within the health sector. The focus, so far has been on service delivery and regulation of premises; on health financing; regulating professionals; regulating product quality and other public health laws.

Two areas will need further attention. One is a review of previous regulations and laws to ensure their relevance and appropriateness for the present and the future agendas, and second a focus on enforcement (see Annex three). Little monitoring of the regulatory laws is carried out at present, and no health impact assessments of development projects are required or taking place. The aim for the future is to strengthen the rather fragmented regulatory efforts and to invest in implementation – which should have community involvement in many cases. Alongside this, there is a need to promote the involvement of civil society in monitoring the quality and appropriateness of health services, for example via independent consumer watchdog bodies at national and local level.

## **3. Agenda for the Future**

### **1. The provider-Purchaser Split and Contracting of Services**

ACT 525 provides for a provider purchaser split between the MoH (purchaser) and GHS and THB (providers). This arrangement needs to be deepened. In particular, the MoH needs to be strengthened so that it can specify service outputs, price and quality, can establish service agreements with the GHS and THB and can supervise and monitor such contracts. The GHS also needs to be encouraged and strengthened to contract services to other providers

### **2. Decentralization**

The establishment of BMCs and sub BMCs in the GHS and Teaching Hospitals has been instrumental in introducing managerial autonomy and improving overall performance of the sector. This needs to be sustained and deepened. Performance contracting within the GHS, that is with BMCs, needs to be re-introduced to make explicit the linkage between budgets and outputs. The linkage with district assemblies need to be clarified in the context of the management arrangements.

### **3. Strengthening the regulatory environment**

The pluralistic provision of health services requires the development and strengthening of the overall regulatory environment to ensure quality services to clients. Efforts must go towards regulating both public and private providers.

### **4. Consolidating the gains made under the SWAP**

Substantial experience has been gained around building partnership with the development partners under the SWAP but less so with building partnerships with NGOs, civil society and other sectors. It will be necessary to invest in partnerships with these other players, while sustaining and indeed enhancing the partnership with the development partners.

## VI SUPPORT SERVICES

### 1. Where we began

Although some improvements had been made in the years up to 1997, the supplies required for effective preventive and curative interventions were inadequate and uncertain. This was undermining the efficiency of the system as a whole. In addition, new facilities were required to extend the health facility network, facility upgrades were planned and the physical infrastructure required more systematic maintenance.

### 2. Priorities for the 5 Year POW

As a result, one of the seven key strategies of the POW was to improve the management of the capital programme and of logistics and support services. It was assumed that by strengthening the management of support systems an adequate capacity for implementation and improved efficiency in the use of scarce resources will be ensured. The main principle was to strengthen in-house management capacity and the judicious use of the private sector in 'capital' (which for the purpose of this assessment include transport, estates and equipment) and 'goods and services' (which is made up of pharmaceutical and non-drug medical consumables) procurement and management. Under each of these, work has concentrated on improving management systems and on building procurement capacity.

### 3. Capital Programme

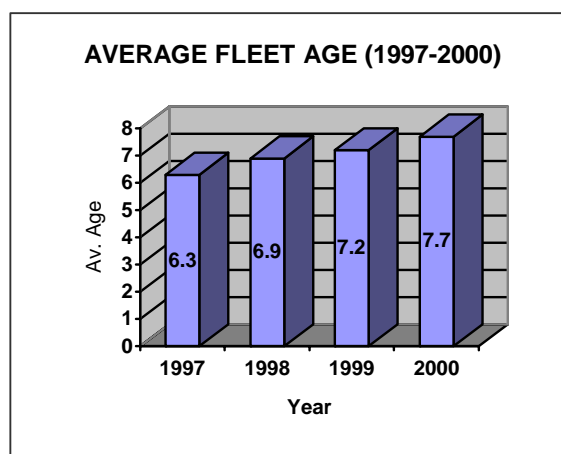
#### 1. Transport

##### Achievements

A national transport policy and management system was in place before the start of the current 5YPOW. During the period, further progress was made in strengthening the transport management system involving training managers, drivers and mechanics as well as the establishment of a transport monitoring and information system. There is currently in operation, a zero breakdown of the fleet of motorcycles and 80 per cent availability of vehicles for service.

##### Challenges

The most important problem has been the difficulties faced with the policy of replacing vehicles every 5 years and motor cycles every 3 years. The graph shows that rather than reducing, the average fleet age has increased from 6.5 to 7.7 years. A prohibitive budget of \$20 million has been produced for transforming the fleet to an ideal fleet. A procurement plan with realistic average fleet age reduction targets over a reasonably long period might be more workable.



Three other important outstanding areas are a review of the transport policy, which has had a mid term review and has been implemented for about 7 years; an attempt to establish a

revolving spare parts fund; and the plan to contract private garages for maintenance and repair. These have not functioned as expected due to weak management capacity for such schemes. The revolving fund scheme will require the definition of clear management procedures, cost projections and enforcement of cost recovery. For contracting, MOH may need to help enhance the capacity of private garages by providing maintenance sponsoring training to be conducted by (for example) the main suppliers of vehicles to the MOH.

## 2 *Estate Management*

The 5-Year POW identified three areas for strengthening: 1) Planned Preventive Maintenance (PPM) of Estates, 2) management of civil works and 3) capital investment planning. Historically, the EMU of HASS and the EAC of PPME shared these functions especially the latter two. With the organisational reforms especially the MOH and GHS split, it has become rather urgent to redefine and clarify roles.

There has been slow progress in instituting the PPM programme. Manuals and guidelines have been developed, the post of Estate Officer established and appointments made. Substantial training has been carried out, and inventory and establishing ownership of MoH property is ongoing. The main outstanding issues are the low levels of the maintenance budget and the severe deterioration of many facilities requiring major rehabilitation before a maintenance programme can make an impact.

## 3 *Capital Development*

Various actions were undertaken to ensure efficient procurement of civil works, as well as supervision and cost control. At the outset, there were several concerns about the capital programme. These included the size and the potential effect on recurrent expenditure, transparency in procurement and equity considerations in terms of what levels benefited from the capital expenditure. The table 6.1 below shows the capital expenditure by level from 1997 to 1999. A lot of the HQ projects (ie. Managed at the HQ) actually benefited lower levels. Due to the relatively high cost of the regional hospitals, an analysis of absolute expenditure might give the impression that the regional levels have benefited more from capital expenditure.

**Table 6.1 Expenditure on Capital Development**

LEVEL	1997		1998		Jan-Sept 1999 <sup>72</sup>		TOTAL	
	\$ m	%	\$ m	%	\$ m	%	\$ m	%
HQ	14.0	21.2	1.4	2.9	0.8	44.4	16.2	14.0
TERTIARY	11.5	17.4	5.0	10.4	0.5	27.8	17.0	14.7
REGIONS	24.8	37.5	27.8	57.9	0.1	5.6	52.7	45.4
DISTRICTS	15.8	23.9	13.8	28.8	0.4	22.2	30.0	25.9
TOTAL	66.1	100	48.0	100	1.8	100	115.9	100
PoW TARGETS	14.2		17.9		23.0			

### **Achievements**

The capacity for the management of civil works has been improved with the employment of qualified professionals in the EMU, the development of a monitoring database and training manuals for estates management.

<sup>72</sup> Figures for the rest of 1999 and 2000 were not available at the time of writing this report. The table will be updated as soon as data becomes available.

## **Challenges**

- The procurement and information systems for major capital projects still do not follow the procedures agreed with the partners. It has been a major problem in the past, threatening the health programme. This could well repeat itself if more diligence is not applied.
- Investment did not follow POW priorities. The recurrent cost implications of investments in health infrastructure are also still not estimated on a regular basis before investment decisions are taken.
- The minimal involvement of the MoH in the tender process especially at the regions and districts needs addressing. Unless this is resolved, improved procedures and guidelines developed by the MoH will not analysis of work load and marginal efficiency value.
- Capital investment planning is relatively new within the sector and its linkage with service delivery strategy is weak. There is currently a process in place to develop an investment model for the health sector. The main challenge is to get the strategy to respond to service delivery.

## **4. Equipment Management**

The intention has been to develop equipment management capacity covering acquisition, distribution, installation, use and maintenance training. Substantial progress has been achieved even though further strengthening remains. An outstanding issue is still the weak capacity in equipment management both within the public and private sectors. A twin track approach involving building the MoH/GHS/THB in-house capacity while supporting the capacity building activities within the private sector might be useful.

## **5. Goods and Services**

Improved availability of affordable drugs and other medical supplies and their rational use were seen in the 5 Year POW to be key strategies for improving quality.

### ***1. Procurement***

#### **Achievements**

Substantial progress has been made in the development of procurement capacity. A Procurement Unit has been established under the SSDM. A Procurement and Procedures Manual and a Standard Bidding Document have been developed and for the past three years, the Procurement Unit has conducted National and International Competitive Bidding processes with increasing competence. The annual procurement audits attest to this.

#### ***Challenges***

The legislative framework for procurement remains weak. There is not yet an official procurement code for Ghana that defines official rules and regulation and ethical considerations. The two legal instruments on the scope and procedures of public procurement in Ghana, Financial Administration Regulations, 1979 (LI1234) and the Ghana Supply Commission Law, 1990 (PNDCL 245), are seemingly vague and inconsistent. The GSC law in particular has been overturned by an administrative fiat but yet to be repealed. The

capacity for the procurement of Technical Assistance is poorly developed and largely managed by individual partners providing TA.

For the future, the health sector will need to work closely with the PUFMARP Secretariat to review and update the legislative and regulatory framework with respect to current procurement practices.

In addition, the following key outstanding issues with procurement will need to be considered.

1. The shortage of skills in procurement remains a problem and way have to be found to strengthen capacity in this direction
2. Procurement planning needs to be improved, particularly prioritising procurement lists. Partners should be required to confirm earmark funds for procurement using their own guidelines (with MOH participation) for goods and services such as TA vehicles and other healthcare equipment.
3. Linkages and dialogue between procurement, finance and stores management systems need to be promoted as well as between procurement, planning and implementation.
4. Donor procurement should be integrated to ensure value for money (VFM).
5. Continued effort is required to train and motivate all levels to adhere to the PPM.
6. Negotiate for increased participation of the MoH in the procurement of Civil Works.

## **2. *Drug Supply Management***

The key issues that confronted drug supply management included policy overview, rational use, financing and the assurance of drugs quality. The introduction of user fees was associated with a change from a pull to a push system between the health institutions and the medical stores for items under cash and carry. Though the initial focus of the cash and carry system was on drugs, this was extended to include non-drugs consumables. The new government policy to abolish 'cash and carry' will require a review of these management arrangements.

### **Achievements**

A National Drugs Policy has been reviewed, adopted, given Cabinet assent and published. Standard Treatment Guidelines have been revised and published. This has translated into improved availability. Evidence available indicates that the availability of basic essential drugs as measured by 30 tracer drugs is improving. This was about 73 per cent in 1993 and has increased to 83 per cent in 1998.

### **Challenges**

The National Drugs Policy does not provide the institutional framework within which the drugs policy should be monitored.

Emphasis needs to be placed on improving the quantification of drugs, as well as introducing a system of inventory management at all levels.

There is also the need to introduce the trained staff in standard operating procedures for handling drugs at all levels.



A drug pricing study revealed that, there appears to be no systematic approach to pricing at health facility level. Drug pricing practices in the Regional Medical Stores were found to differ from one region to another, and to be different from the official mark-up policy. Following the study, the formation of a special Working Group to advice on mechanisms of drug pricing in the context of equity, affordability and sustainability has already been suggested and is under serious consideration by the MoH. It was recommended that, the Ministry of Health should actively monitor the pricing of drugs and supplies at the different levels to ensure that they are affordable and are consistent with the norms.

### **3. Rational Use of Drugs**

Key instruments in the form of the Standard Treatment Guidelines (STG's) Essential Drugs List (EDL), and Rational Drugs Use Training Manual documents have been published and distributed to health staff to promote the rational use of drugs. Training is ongoing in the use of these tools at Regional, District and Institutional levels. A system has just been concluded. This will form the basis for an IE&C strategy for the general public.

### **4. Central Medical Stores**

One of the major constraints identified in the 1997 – 2001 POW was the poor functioning of CMS leading to shortages of essential drugs and supplies. Long term Technical Assistance has been secured to support MoH, particularly to enhance the operational effectiveness and the transformation of the medical stores into a more autonomous, business and customer oriented storage and distribution network.

Meanwhile standard operating procedures have been developed to assist all personnel who manage the storage and movement of health commodities. It has been agreed that an incremental approach to improving the efficiency of CMS be adopted. This involves moving from the current traditional set-up to a semi-autonomous organization. This process is likely to take a number of years.

### **6. Other Issues**

Two other areas have been identified as important support services: administrative support and communication. The problem of poor administrative support is felt at all levels and in most instances compels senior technical staff to get bogged down with administrative issues at the expense of technical issues. To date, not much has been done about this problem. The strengthening of this capacity is crucial.

Communication is vital and was given prominence in the 5YPOW. Communication technology is now increasingly used by in a haphazard manner. An Information and Communication Technology Policy has been developed and a plan is currently under development. The second dimension of communication involves creating opportunities for regular and consistent policy dialogue with internal and external partners. The senior management meetings need to provide consistent leadership. Internal communication is unstructured and often results in duplication of effort, and frequent unsynchronised invitation of regions and district. A communication strategy needs to be developed.

### **7. The Agenda for the Future**

1. The balance private and public of support services needs critical review ranging from the role of private wholesalers in the provision of drugs and consumables to maintenance of equipment, vehicles and estates. This review requires a review of the capacity of the MoH and its agencies to

define services required clearly, monitor outputs delivered and generally manage the contract as well as that of the private sector to deliver. It might consider schemes for building private sector capacity to support the health sector.

2. The planning of procurement needs substantial strengthening. There needs to be a move from compiling a long list of unaffordable items to lists that are prioritised to fit available resources.
3. The proposal by various support units to establish posts – transport officers, estate officers, equipment management officers etc – needs to be properly managed. The MoH needs to decide what mix of staff it requires. These requests could develop a life of their own.
4. Developing capacity for administration and communication did not make much progress during this period and should receive attention in the next.
5. It is important that roles of the MoH and its service agencies in the management of the major civil works be clarified.
6. Decision on the roles, functions and ownership of CMS need to be concluded and implemented.

## VII HUMAN RESOURCES

### 1. Where we began

In 1996, the sector employed 29,645 staff. At that time, a short fall of 15 per cent of 5,299 was estimated against facility-based staffing norms. This shortfall was made up of:

Medical Doctors	233 of which 195 were for specialist positions;
Nurses	529
Dental	51
Pharmacy	141; and
All others	4275

A fifteen per cent overall shortfall was serious, and the regional shortages were even more serious.

### 2. Priorities for the 5 Year POW

The role of human resources in health service delivery is to ensure the production, recruitment, deployment and the retention of adequate numbers of health workers in the country. The objective is to ensure that these cadres of health workers are equitably deployed and well motivated to deliver quality health care, aligned with government policy priorities and at the point of greatest contact with the populations that are in the most need of services.

Although the 5YPOW recognised that staffing was inadequate and poorly distributed, it did not explicitly link the objectives of a HR strategy to the POW, except with a broad assumption that there were gaps to be filled both in terms of numbers and specialisation. At the inception of the 5YPOW, staff projections were made which took into consideration the above assumption and based numbers on the existing and projected health facilities situation.

The implicit strategy to make up this shortfall was to increase the production of health workers. In retrospect, this strategy was incomplete; as it failed to make provision for incentives that would retain staff, allow the appropriate skills to be deployed to areas where health needs were greatest and provide them with a management structure that would ensure high productivity. It failed to recognize that health workers increasingly work in regional and international markets. The financial rewards of working in health outside Ghana are larger than what Ghana can afford to pay.

### 3. Training Strategies

#### 1. Pre-service Training

##### Achievements

The main attempt to make up for deficits in staff numbers has been to increase training intakes. The training institutions are run under the direct purview of the Ministry of Health. The strategy to expand intakes has been most successful for SRN training, which has now doubled its intake since 1998 and is nearly four times that of 1995. This has been a major achievement for the period.

The table below shows the average intake and output from some basic training programmes. The output figures represent students who are successful at the first sitting of their final qualifying examinations. Note that about 60 per cent of all persons in training at the post

basic level are practicing nurses. This means that effectively, the number added is about 40 per cent the intake<sup>73</sup>.

**Table 7.1 Average annual intake and output from the basic health training programmes, 1997 – 2000**

<b>Programme</b>	<b>Average Intake</b>	<b>Average output</b>
SRN	633	395
Post-SRN Midwifery	126	125
EN/CHN Midwifery	236	110
Community Health Nurses	233	162
Environmental Health Assistants	70	52

The two medical schools together produce about 120 doctors per year, while the School of Pharmacy produces about 80 pharmacists per year. All work to full capacity. The University of Ghana runs a Bachelor of Nursing Programme. Each year, about 30 graduates pass out. There is however, a marked difficulty in the placement of graduate nurses. One graduate nurse is on record as having been refused certification for practice by the Nurses and Midwives Council.

### **Challenges**

However, these achievements have not been without problems. Dropout rates during the course and attrition rates following graduation appear to be high. The final output only just makes up for staff loss through attrition per annum. Anecdotal evidence suggests that sometimes school leavers who have not made good enough grades to enter university will join a diploma level course, for which fees, board and lodge is covered and use the opportunity to get extra tuition to retake the exams and thereby gain a place at degree level. A better understanding of the situation is required.

The SRN schools are more than adequate to provide the Registered Nurses required for the health sector. However:

- The schools are not utilizing their full capacity in developing sufficient numbers;
- Certain crucial factors affect the efficiency and effectiveness in the training institutions; namely staff (tutor) shortages, infrastructure limitations and lack of equipment and Health Learning Materials.

The Midwifery Schools have sufficient capacity to train the midwives required by the health sector, if the capacity of the schools is fully and effectively utilized.

Enrolled nurse training ceased in 1982, in favour of the use of State Registered Nurses. The training of laboratory assistants has ceased in favour of the use of laboratory technicians. There are discussions, however about restarting the Enrolled Nurse Training. This is to be welcomed.

<sup>73</sup> HRDD Annual Report, 2000, MoH/GHS, Accra; Ghana

## Post Basic

### Achievements

Fellowship programmes were available in the form of internal and external long or short courses. Long courses are mainly in the form of Masters Programmes. These have been in the area of Health Economics, Educational Management, Health Promotion and Information Sciences, Hospital Management, Tropical Medicine, Medical Electronics, Occupational Therapy and Radiology. The commonly offered short courses were in: Nutrition Project Management, Health Services Management, Reproductive health, Gender and Healthcare Financing.

**Table 7.2 Distribution of training fellowships in 2000**

HQ	GAR	ER	VR	CR	WR	BAR	NR	UW	UER	AR	KAT	KBT
8	8	8	4	5	5	6	6	8	4	6	8	14

The distribution of training fellowships in 2000 was similar to the distribution in 1997 (Table 7.2). Nominations and awards for these programmes are largely decentralized, and co-ordinated by the Human Resource Development Division. There were also several in-service training courses in place to make up for weak internal capacity.

### Challenges

At the post-basic level, the numbers trained from the training programmes are inadequate to meet the health sector requirements for specialized staff. There is only one school for each of the specialized training programmes and each school has a small intake at a time due to the small budget allocation. A rethink of the scheme for post-basic specialization programmes is required, taking into consideration available opportunities, such as the universities and other tertiary institutions. The reforms in the Education Sector present opportunities to take this forward and should be explored.

Local Postgraduate Schools for medical specialities have not yet been developed. Some of the reasons that have been identified are:

- The postgraduate training did not have a formal structure to it.
- The duration of training is not specified resulting in trainees staying in school for several years.
- The training was not up to the expectation of the trainees.

## 4. Staff Recruitment, Deployment and Retention

There is a major problem of staff recruitment, distribution and retention generally within the health service and particularly in deprived areas. This difficulty has been attributed to an over centralization of the recruitment process, the low remuneration package and a weak incentive package which fails to discriminate sufficiently to support effective distribution of staff country-wide. However, if the existing work force could be retained and redistributed in line with health needs, almost all facility staffing norms could be met without a higher than replacement recruitment rate<sup>74</sup>. This suggests the problem is a regional recruitment and

<sup>74</sup> Analysis of the HR Situation in Ghana, 2001, Report of the HR Task Team for Developing the 5-Year Programme of Work March; Accra; Ghana

retention problem. Whether the existing staffing norms are appropriate will be discussed later.

### *Staff distribution*

The IPPD by region showed a marked disparity between the best and worst served regions (see Tables 7.3 and 7.4 below). Greater Accra (excluding Korle Bu) has 1,216 nurses and 150 medical officers compared to Upper West Region, which has 96 and 14 respectively. However, the population of Greater Accra is only about 3.5 times greater than that of the Upper West Region.

Korle Bu Teaching Hospital had 285 doctors (25.6 per cent) and Komfo Anokye Teaching Hospital had 184 doctors (16.5 per cent) compared to 6.8 per cent of medical doctors available in the three Northern Regions. Compared to the situation at the beginning of the 5YPOW, it is possible to infer that the situation has improved at least in terms of the core cadre situation. The number of doctors has increased slightly, from 1057 to 1143 in 1999. The nursing situation has increased more substantially, to 12,864 from 9,310; and increase of 3554 as against the projected number of 1408. Other categories of staff especially the support staff, also increased very dramatically during the period.

Of the 2,037 staff recruited in 1999, 50 (2.5 per cent) refused their first postings (mostly to northern regions) and some of these did not take up any posts and are now lost to the system. Reasons given included financial, social and family issues, lack of accommodation, lack of opportunity for self-development and neglect from headquarters regarding promotion and scholarship opportunities.

The proportion of doctors and nurses in the total health staff is 49.8 per cent. The doctor population is less than 5 per cent and the distribution across 7 of the 10 regions is less than 2 per cent in each region. A further analysis would be required to determine if other cadres have been over-recruited or whether this distribution is a true reflection of the need. Within the principle of multi-skills development for all health workers, critical consideration needs to be given to the thought that some job descriptions could be merged into single functions – e.g. transport procurement and estates management into ‘Logistics and Estates Officer’, human resource development, planning and budgeting into ‘Planning and Budgeting Officer’.

**Table 7.3 Distribution of doctors, dentist and medical assistants in 1999**

CATEGOR	TOTA		HQ		KBU		KATH		GAR		VR		ER		CR		WR		AR		BAR		NR		UER		UWR	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Medical	908	207	32	8	208	80	152	32	101	49	58	2	73	11	45	2	62	7	61	11	54	5	29	25	14	1	1	1
Dentist	21	7	1		2	1	1		5	4			4	1	2		3				1		1	1	1	1	1	1
Medical	182	151	1				1		28	27	11	18	27	14	18	13	19	21	28	18	18	14	18	11	8	6	5	7
TOTA	1,111	364	34	8	207	81	154	32	134	80	69	20	104	28	65	15	84	28	89	30	72	19	48	11	34	6	20	7

**Table 7.4: Distribution of MoH Nurses in 1999**

Health Staff	WR	CR	GA	ER	VR	AR	BAR	NR	UW	UE	TOTAL
Total MoH staff	2,747	2,566	4,804	4,647	4,087	3,323	3,218	2,442	1,232	1,546	30,612 <sup>75</sup>
Nurses: Professional & Auxilliary	1056	1134	2574	2019	1560	1330	1048	942	495	706	12864
Nurses – National	1056	1134	3894	2019	1560	2118	1048	942	495	706	14972 <sup>76</sup>

<sup>75</sup> This is based on the IPPD payroll of June 1999. Information available in Ekey et al; Human Resource Situational Analysis – HR Bulletin: Nov 1999 puts the staff strength at 28,662. The latter is preferred because it captures lower grade staff in detail.

A proposal to attract health workers into the system and in particular to hardship/deprived areas was developed for consideration of health partners and government. This was a comprehensive package that included the payment of an allowance of 30 per cent salary for staff working in designated areas, provision of accommodation, priority for further training and overseas fellowships as well as paid leave for non-local staff. The package of measures at the time was costed at about US\$4 million per annum, about half of which was investment costs and the remainder annual recurrent costs. This might be a pragmatic way forward, as it avoids a more radical restructuring of staff remuneration packages.

### *Staff Attrition*

Staff leave the government service for various reasons, for the private sector, to migrate and on account of age. The demographic profile suggests an ageing staff.

**Table 7.5: Age distribution of medical staff in 1999**

Category of Staff	Age Group								
	<=25	26-30	31-35	36-40	41-45	46-50	51-55	56-60	>=61
Medical Officer	1	140	312	229	178	91	39	85	40
Medical Assistant	0	0	0	11	42	53	130	86	11
Dentist	1	1	3	2	7	3	4	6	1

Table 7.5 shows the age distribution of medical staff. Out of a total number of 333 medical assistants, none is below the age of 35 and only 3 per cent are under 40 years. Approximately, 65 per cent will be retired within the next 5 years. Three quarters of dentists are above 40 years of age and about 40 per cent will be retired within the next five years. Again, 40 per cent of medical officers are above 40 years and 15 per cent will be retired within the next 5 years – of which 25 per cent are actually on contract after their retirement.

Although there is clearly a need for better information, it would appear on the basis of available staffing data that, despite policies to increase staff numbers, there is a large outflow of staff and that is accelerating. Over the years, Ghana has built up a reputation for producing professional, especially health professionals, of international quality. The Nurses and Midwives Council reported a loss of 328 nurses from the register in 1999 (up from 198 in 1998) although this is only 2.6 per cent of the entire nursing group, it is the approximate numerical equivalent of the entire output of SRN schools for the year 2000. The outflow of other professional groups is likely to be similar or greater. The data from the Pharmacy Council also indicates that over 20 pharmacists left the country last year. The Medical and Dental Council has no system for capturing this data. Anecdotal evidence however suggests that at least 40 per cent of all graduating medical students leave the country.

### *Staffing Norms and Service Provision*

There is a general notion that most health facilities are understaffed or over worked. This is largely an anecdotal proposition. Working on achieving a more rational use of staff nationally has not been given that much attention in the 5YPOW. Using the staffing norms as

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<sup>76</sup> It is thought that about 2383 of the number would have been retired by 2001.

adopted by the initial analysis for staff projections 1997 – 2001<sup>77</sup>, the conclusion is that the sector is grossly over staffed and that the basic problem is one of distribution.

By these norms, facilities outside the teaching hospitals require the following categories of staff to be efficient.

Doctors	268
Nurses	5694
Dental	293
Pharmacy	871
Physiotherapy	36
Laboratory	1206
Radiography	160
All others	8705

However, it is not clear what the basis for the current staffing norms. The proposition that a Health Centre should not have any medical doctor staffing it, and have only a medical assistant and four nurses working, has had a mixed response. It allows the concentration of medical expertise at higher levels, in the context of a serious shortage in the rural areas. However, there is little understanding of how this might affect the health status of the community.

The definition of clinics is also not consistent with practice. For instance, a clinic in private practice has the full attention of a medical practitioner, defined under the 1958 Private Hospitals and Maternity Homes Board Act, whereas the standards for public sector clinics requires only three nurses and two other auxiliary staff. Even the definition for a Maternity Home in a private practice requires a basic defined staff competency.

## 5. Agenda for the Future

An effective HR strategy that reflects the government's core business in health is required to develop a high productivity and appropriately structured workforce that can deliver core health services in the future, to a high standard, cost effectively, and within the government's means. Such a strategy would take into account the purchase of core services from non-government providers, relieving the government of the need to employ staff to do everything.-

- **Staff remuneration**

An important, but not sufficient, element of a human resources strategy is remuneration. The value of the package<sup>78</sup> for by a nurse was about US\$75 (plus Additional Duty Hours Allowance) and for a medical officer about US\$310 (including Additional Duty Hours Allowance), although neither includes fuel and vehicle allowances or 'informal payments' from clients. The 1999 introduction of Extra Duty Allowance has boosted pay, but appears to have re-enforced clinical practice and a doctor led approach to HR management rather than a workload approach. The scales do not attempt to target rural postings in deprived areas. The health sector wage bill will need to be contained within an affordable overall sector budget. Sizeable wage increases mean having overall fewer staff in the health sector.

- **Workforce productivity**

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<sup>77</sup> The Standard is based on a Level B Staffing norm, which is an average between the ultimate and the minimum. (see HRD Capacity Assessment 1997-2000, October. 1996, MoH, Accra, Ghana)

<sup>78</sup> Based on data for April 2000 provided by HRDD.



Workforce productivity depends, not only on adequate remuneration, but also on effective management systems. The MoH has in a performance management system; but the process of bench marking and targets setting as a basis for performance hearings need fine-tuning. Little attention has been paid to sickness, leave or absences. A study of nurses showed a loss of 1,564 days in 1999, 11 days per nurse<sup>79</sup>. In other countries the AIDS epidemic has further increased absence levels. Productivity policies need to be developed.

- **Increasing workforce flexibility**

Currently, the drive is towards producing polyvalent nursing staff. In 1998, nutritionists and disease control workers were being trained as community health officers. There is now the proposal to transform midwives, technical officers and some other category of staff into cadres for the Community-Based Health Programme<sup>80</sup> (CBPS). These measures seem an ad-hoc response to new product development and the impact of such staff shifts and mergers have not been adequately assessed or an appropriate cost-benefit analysis carried out.

- **Personnel Administration**

Apart from support staff who are recruited on the open market, all core health staff – doctors, pharmacists, nurses, laboratory technicians, bio-statisticians, medical assistants – are employed directly upon graduation from their training. An analysis of the recruitment and promotion process indicates that it can take up to 30 months. This creates a lot of frustration. Training institutions have to notify the Human Resource Development Division of the number of students who passed each year. The Teaching Hospitals first choose the students they wish to have and only the balance are notified to the Ministry. This system clearly works to the disadvantage of the wider health sector.

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<sup>79</sup> HRDD (2000) Ibid

<sup>80</sup> JHU/PCS, 1999, Community-Based Health planning and Service Handbook, MoH

## VIII. FINANCING THE SECTOR

### 1. Where we began

Prior to the first 5YPOW, the decline in the national economy meant that, overall resources available to the health sector from government were shrinking in real terms. For 10 years (between 1985 and 1995), government allocation to the Ministry of Health was approximately \$6 per capita per year compared to \$10 per capita in 1978.

Donor funding to the sector had increased substantially from 25% of the total public health budget prior to 1992 to 30% in 1994. However Donor funds were uncoordinated and tied to specific programmes and capital inputs, which do not reach operational levels. The channelling of the funds also created parallel management systems and disrupted overall systems development.

Private spending on health though not well quantified was estimated to be over \$7 per capita in 1990. However little of this money was spent in public health institutions. The total IGF generated within the public sector constituted about 8-10% of total recurrent expenditure (\$0.30 per capita). Health insurance was not a major focus of health financing at the start of the 5YPOW.

The distribution of public expenditure on health was also poorly linked to stated priorities and health needs. Secondary and tertiary level expenditure and staff emoluments were disproportionately higher than on primary level and yet these facilities were unable to support and strengthen primary care. Insufficient amounts were being spent on non-wage recurrent costs, resulting in shortages of drugs and other essential supplies and weak logistic support systems. The result was the inability of the system to perform efficiently and effectively.

### 2. Priorities for the 5 Year POW

The objectives of the 5YPOW in relation to financing were to increase overall resources in the health sector, which would equitably and efficiently distributed. The 5YPOW was:

1. To ensure that more resources were made available for the attainment of universal access to primary health services
2. To increasingly shift resources to the district level;
3. To achieve a better balance between development and recurrent budgets;
4. To increase the share of non-wage items in the total recurrent budget;
5. Ensure that both government and donor resources were to be increasingly channelled through a government system and in a unified manner.

Specific health financing targets to be achieved over the 5 years (1997-2001) are shown in table 8.1 below.

Source	PROJECTIONS (US\$M)					ACTUALS (US\$M)			
	1997	1998	1999	2000	2001	1997	1998	1999	2000 <sup>1</sup>
GOG	81	93	108	119	136	68	85	65	69
IGF	6	7	7	8	8	13	14	15	14
DONORS	40	40	40	40	40	28	24	31	
CREDITS	0	0	0	0	0	50	32	10	
TOTAL	127	140	155	127	184	159	155	129	114
<b>PROPORTIONS ANALYSIS</b>									
MoH Rec/GoG Rec	10	10.5	11	11.5	12	8.4	9.9	8.1	
MoH Cap/GoG Cap	6	6	6	5	5	1.5	1.2	0.04	
IGF/Tot. Health Exp.	4.9	4.8	4.6	4.6	4.5	8.5	9.1	14.2	
Hlth Aid/Tot. Hlth Exp.	32	29	26	24	22	17.4	14.9	25.6	
Hlth Aid/Total Aid	9	10	11	11	11		5	6.8	
MoH Tot/GoG tot	5.9	6.2	6.9	6.9	7.3	3.9	5.5	5.9%	
MoH Tot/GDP	1.02	1.19	1.25						
Tot Hlth spend. % GoG	1.8	1.9	1.9	1.9	1.9	2.3	2.1	1.9	
Hlth Esp/Cap (excl. AID)	\$4.8	\$5.3	\$5.9	\$6.4	\$7.0	\$4.2	\$4.9	\$4.82	
Hlth Exp./Cap (incl. Aid)	\$6.9	\$7.4	\$8.0	\$8.4	\$9.0	\$8.1	\$7.8	\$6.83	

Table above sets out targeted and actual contributions (note, these expenditure estimates do not capture private out of pocket and employers spending on health). The total budget for the 5 year POW is \$US 773.4 million. As of end 1999 (three years into the POW), estimated actual expenditure stood at \$443 million against a 3 year target of \$422 million.

### 3. Achievements

Overall resource mobilisation targets were achieved. This was despite significantly lower than expected contributions from both the government budget and from donors. This positive increase is attributed to contributions from Internally Generated Funds (IGF) that more than double the expected level and commercial borrowing not envisaged in the original programme of work.<sup>81 82</sup>

The table below reviews some aspects of resource allocation.

<sup>81</sup> Addai E and Gaere L, 2000; Capacity-building and Systems Development for Sector-Wide Approaches (SWAs): The Experience of the Ghana Health Sector

<sup>82</sup> MoH Mid-Term Review, 1999

**Table 8.2 Resource Allocation Projections and Actuals – 1997 - 2001**

CATEGORY	PROJECTED					ACTUALS				
	1997	1998	1999	2000	2001	1997	1998	1999	2000	2001
Total Investments US\$M	40	43	48	48	48	70	47	23		
Total recurrent US\$M	87	96	107	119	136	89	108	106		
% Share of Recurrent Budgets, All sources <sup>83</sup>										
Salary	38	35	33			42	36	41		
Non Salary	62	65	67			58	64	59		
Proportion Allocation of Non Salary Recurrent budget to Levels US\$M										
HQ MoH& GHS	18	18	17	16	16	36	13	14		
Tertiary	22	21	20	20	19	16	12	21		
Regional	24	24	24	23	23	13	24	23		
District	37	38	39	41	42	34	50	42		

The investment budget was to finance construction and equipment of new health facilities in under-served areas and for rehabilitation and upgrade of existing primary health care facilities to achieve the goal of increased access to primary care. It was expected that capital investment would not increase dramatically within the programme period and was to remain constant at 31 per cent. At the inception of the programme, the investment budget accounted for 44 per cent of the total health expenditure and this dropped to 16 per cent. Consequently, the total recurrent budget rose from 58 per cent in 1997 to 84 per cent in 1999.

The share of wages in the total recurrent budget was to decrease from its level of 55.3 per cent in 1996 to 33.1 per cent by 2001. The reality has been that, salaries as per cent of MoH total have not fallen below 60%. In the wake of the demand for the Additional Duty Hours, and with the general realisation of the need to provide wage incentives (among others) for staff in deprived areas it is least surprising that this level of wage as proportion of recurrent did not decrease. The need to expand the intake to the training institutions implies additional wages for the new entrants. With a desire to maintain industrial peace it is also possible the full level of 104 billion cedis of the Additional Duty Hours will come to stay thereby increasing the percentage on wage. This is projected to remain in the region of at least 70 per cent.

The expenditure patterns indicate that more funds have been moved to the district level reaching 50 per cent in 1998 and 42 per cent in 1999 as against targets of 37.5 and 39.4 percent respectively. Total spending on health as a percentage of GDP exceeded the target of 1.8 in 1997 to 2.3 and in 1998 it was 2.1 as against a target of 1.9. Total per capita expenditure on health in 1998 was \$7.8 but dipped in 1999 to \$6.83.

<sup>83</sup> Foster, M. et al (July 2000): 1999 Health Sector Review: Supplementary Report on Health Sector Finance

#### 4. Challenges

The largest single source of financing for health services was households, with 50 per cent of total health spending coming out of people's pockets. Households purchased health services from formal and informal providers, from pharmacies and from government facilities, both formally and informally.

Within the public health institutions, the growth in IGF has raised concerns over its potential to serve as a financial barrier to the poor. This is premised on the assumption that the growth is as a result of increases in user fees. Meanwhile it has been argued elsewhere that this growth may also be due to better financial management systems and better reporting among others.

The challenge is to ensure that IGF does not serve as a financial barrier to access whilst maintaining a good system of financial management and resource mobilisation. So far Health insurance and other pre-payment schemes still remained under-developed and the exemptions budget has not risen as fast as the increases in IGF.

Whereas GOG commitments were met in nominal cedi terms the high rate of inflation and high exchange rate meant that commitments in dollar terms were not met. Donor commitments were also not delivered in full. The challenge is to develop a financing framework that takes advantage of the current government's dispensation towards the Highly Indebted Poor Countries Initiative, which requires that more funds are allocated to health. Secondly, it is also not clear how differently donor commitments can be bolstered to meet targets.

The major allocative focus during the first 5YPOW was the extent to which the health budget financed primary as opposed to tertiary services. In addition a set of criteria was developed to ensure fair allocation between regions and to different levels of the health services within regions. However, this did not adequately address the resource allocation criteria to ensure fair allocation. There was no concentration on expenditure on the poor. Apart from the IMR weighting<sup>84</sup>, allocation was not based on health needs of the various groups or on the incidence of the diseases that affect them or on their economic need (poverty) or on any proxy for the volume of services being delivered.

The non-wage recurrent budget allocation indicates that there was a gradual shift of resources to the district level.

Meanwhile, Fixed health facilities constitute inflexible 'cost sinks.' A substantial amount of recurrent expenditure goes to staff costs and to the supplies for them to do their work, irrespective of case load and health needs. The incidence of public expenditure therefore mimics the incidence of health facilities and staff. Both distortions in the siting of health facilities, with respect to health needs, and in staffing, compared with norms, will induce distortions in expenditure with respect to health needs. Moreover, the siting of facilities places limits on the extent to which resources can be moved further to coincide with the greatest health needs.

The questions about which services were being allocated to whom were not considered to any great extent. This is evident in the fact that resources are not tied to any particular output. The growing number of people who cannot afford health care demonstrates distortions in the allocations of resources compared with need. In preparing for the next program of work we should start looking at what services resources should be allocated to. Should public funds be used to finance only certain types of services and also for only certain groups of people i.e.

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<sup>84</sup> This relates to only one BMC focus and is just about 1 per cent of service package and is not effective in discriminating in favour of the poor.

vulnerable and disadvantaged, children, women, aged? What will be the objective indicators for these decisions? There is a need to review the criteria for resource allocation, which will ensure the achievement of the goal of reducing inequalities in access to health as well as in health outcomes.

**5. Agenda for the future**

1. Expand the resource base by emphasising the need for both government and donors to increase their share of contribution to financing health and keeping to such commitments. Avenues must be explored in ensuring that economic impact does not grossly affect the real value of the financial package.
2. The new government is committed to abolishing the 'cash and carry' system. There is therefore the need to explore alternative pre-payments schemes. Within this context the exemptions policy needs to be reviewed to reflect the new dispensation.
3. The key issue is to review the resource allocation criteria to respond to priority services/health needs as well as the needs of the poor and vulnerable groups.

## **IX: FINANCIAL MANAGEMENT**

### **1. Where we began**

At the onset of the MTHS there was no uniform financial management system in operation. Financial management systems were diverse depending on the source of funds. There were numerous accounting systems, unreliable financial returns, no standardised accounting procedures and internal control system and uncoordinated sources of funding.

### **2. Priorities for the 5 Year POW**

The importance of financial management in the health sector reform process is underscored by the fact that a financial management appraisal was conducted as part of the preparations for the programme. The 5YPOW therefore emphasised the standardisation of internal controls and procedures, accounting procedures, channels of disbursement and reporting, the development of formats as well as strengthened management of all funds including revenue generation. The Common Management Arrangements and the MOU that were developed with partners also stressed channelling of donor funds through the pooled donor fund (The Health Fund), the institution of single annual external audit of all funds under management of MoH/GHS under the overall direction and guidance of the Auditor General and the strengthening of the Internal Audit function.

### **3. Achievements**

Substantial progress has been made.

- A new set of “Accounting, Treasury and Financial Reporting Rules and Instructions” to guide financial management staff in the conduct of their operational activities (known as the ATF).
- In line with its commitments under the CMA and MoU, the MoH has from 1997 to date produced regular quarterly financial statements and the independent annual audit reports for each year.
- A certification process has been in operation since 1997 to assess the readiness of Budget Management Centres (BMCs) down to the district level to hold funds. Certified BMCs are allowed to hold and managed their funds whilst uncertified ones have their funds managed at the next higher level.
- Substantial capacity building has been undertaken. There has been a substantial ongoing programme of Financial Management training for BMCs and managers in the MoH financial procedures using both staff of MoH national Finance Division local & international consultants. The exercise has been expensive but considered worthwhile. A long-term resident TA is in place. Also, a number of key MoH finance personnel from national and regional levels have had external training, some up to Master of Business Administration level. An Internal Auditor for the sector was appointed and a unit established.

### **4. Challenges**

- Ensuring adequate numbers of good quality accounting staff to support all the BMCs remains a major challenge. Also, retaining staff (most of whom have been trained) has been affected by staff transfers conducted by the Controller and Accountant-General (CAGD). It is hoped that the creation of an autonomous Ghana Health Service, which employs its own accounting staff, will overcome this.

- The process of producing the QFS is time and labour-intensive, and delays in production of reports have frequently led to delays in release of donor funds. To solve this problem, partners have suggested that the QFS be made somewhat less detailed, focusing more on executive management information and strategic analysis of key budgetary trends. Such a format is yet to be developed.
- Large balances held by MoH as shown in the various Quarterly Financial Statements have been a source of major concern to the partners especially when BMCs seem to be short on funds. The system of disbursement needs to improve to reduce the occurrence of this problem.
- Donor expenditure reports are sometimes late, or in the majority of cases not reported at all. Continued channelling of earmarked funds outside agreed system and without adequate consultation with central MOH/GHS continue to undermine the intentions of the 5YPOW, the CMA and the MOU.
- As greater progress is made, the need to measure system performance increases. We require more robust and sophisticated financial data and analyses system that will allow measurement of efficiency gains, both in terms of *technical efficiency* and *allocative efficiency*. The need for comparisons of unit costs to support the setting of efficiency targets is highlighted, as is the need for simple measures of productivity.
- The MOH has in some instances preceded the wider GoG financial management reform programmes. However, effective consultation has ensured that health sector developments have been complementary to GoG reform strategies. However, slow progress with some aspects of PUFMARP has held back progress in the health sector, for example in respect of the computerised GoG financial reporting system<sup>85</sup>. Consultation needs to continue so as not to hold back the health sector unduly.

## 5. Agenda for the future

- Develop mechanisms to retain existing finance staff and to recruit more quality staff
- The best balance between timeliness and quality of the financial statement taking into consideration the different stakeholders (Partners & Government (Audit))
- Strategies to address the low utilisation capacity of BMCs
- Better co-ordination and understanding between MoH and Partners bringing in incentives for joining the pool funds and disincentives for donor direct transfers to BMCs
- Mechanisms for inter and intra regional financial analysis linking financial resources with service outcomes to assess efficiency gains and measures of productivity.

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<sup>85</sup> Addai E and Gaere L, 2000; Capacity-building and Systems Development for Sector-Wide Approaches (SWAs): The Experience of the Ghana Health Sector



## **X: CONCLUSIONS AND RECOMMENDATIONS**

### **1. Health Gains**

There have been important health gains. Overall improvements have taken place in key health indicators such as infant and child mortality and life expectancy. Progress towards achieving the health targets has however been less than anticipated and the spread of the gains in terms of improved health has been inequitable. There are still significant inequalities in health outcomes in terms of infant, child and maternal mortality.

Inequalities in health are also marked by place of residence (region and rural-urban), and also in respect of socio-economic status (for example in relation to level of maternal education). Some outstanding challenges still confronting the health sector include:

- The high maternal mortality rates
- Persistent communicable diseases like malaria, TB, guinea worm, and continuing problem of malnutrition;
- HIV/AIDS, which now poses a major threat to health and development
- Newly emerging non-communicable diseases such as stroke and hypertension and the relatively high levels of death and injury from road traffic accidents.

#### **Recommendation**

In order to bridge the inequality gap there is the need for a comprehensive approach to health care development which addresses issues like poverty, gender as well as tackling major disease problems such as HIV/AIDS, other communicable diseases and emerging non-communicable diseases.

### **2. Health Service Delivery**

Currently, there are a variety of providers in the public, private and informal sector, involved in service delivery in the country. The availability of these providers vary from place to place for example the informal and community based providers are more available in the rural areas and northern part of the country. Their use by individuals and community members are influenced by several factors including cost and gender issues. The MoH is only one amongst many. Therefore its strategic role in the context of this pluralistic health system must be carefully defined while enhancing the roles of other providers.

Substantial progress has been made to increase coverage to public health services like immunisation and family planning. Little progress has however been made in the area of clinical services though there were substantial investments in health infrastructure.

Whilst, the health sector has focussed on improving geographic access to services, less attention has been given to needs of the poor as well as demand side issues like quality and responsiveness to clients needs. Consequently, financial barriers to access to services have become more important than geographical barriers.

It would appear that expanding facility-based services is probably not the most effective way of providing services. There is the need to find out why people are not using public health facilities. Consequently, non-facility based services as well as reducing cost of access may be more important than investments in infrastructure.

### ***Recommendations***

- Rethink and reposition the public sector in the context of the growing health sector pluralism and explore the opportunities for commissioning services to NGOs and the private sector.
- Strengthen the public sector's regulatory capacity and refocus efforts on improving quality and responsiveness of services to client needs and expectations.
- Develop health-financing policies that enable the poor to use health services.
- Develop community-based approaches as a complimentary strategy to the current facility based services.

### **3. Intersectoral Collaboration**

The health sector has not adequately exploited the potential for non-government and intersectoral action on the key determinants of health such as poverty, educational status (particularly of women and girls), access to water and sanitation, development of access roads and prevention of road traffic accidents, as well as community development.

#### ***Recommendations***

To address this shortfall a new approach to influencing the determinants of health by working with other sector is required. This needs to involve:

- Broadening of the core business of the health sector to include intersectoral advocacy and action;
- Developing new mechanisms and strategies to achieve effective intersectoral collaboration at the national, regional, district and local level and building of alliances around common concerns;
- More explicit strategies and outputs for advocacy by the health sector to achieve carefully targeted investment in health-related sectors such as water, sanitation, education, food and agriculture, social welfare, road transport and economic development (in the context of the national poverty reduction strategy).
- Impact assessment and monitoring of other sector policies and activities on health needs.

### **4. Organisation and Management of the Health Sector**

The passage of Act 525 provided for the creation of a Ghana Health Service and Teaching Hospitals. This created the building blocks for the new sectoral arrangements in terms of the MoH (as purchaser), GHS and the autonomous teaching hospitals (providers), and the statutory bodies (for regulation). The relative roles, responsibilities and relationships arising from this split are yet to be clarified, as do systems for the commissioning and monitoring services.

Substantial progress has been made in strengthening management support systems and improving budget management within the sector. The BMC concept has become firmly established within the health sector and there has been strategic investments in capacity building in the areas of planning and budgeting, financial management, procurement and monitoring and evaluation. The linkage between the individual systems (i.e. between planning, procurement and financial management) is weak.

The future ownership and role of the Central Medical Stores (CMS) remains unresolved. Investment in infrastructure has not been driven by the objectives of the 5YPOW and the recurrent cost implications are not estimated systematically.

A SWAp has been firmly established and a strong arrangement for policy dialogue with the health partners is now in place. There is however little participation by other sectors, the private sector, NGOs and civil society in the policy dialogue.

### ***Recommendations***

- Clarify and strengthen the purchaser-provider roles and relationships between the MoH, GHS and TH and further develop capabilities in service commissioning, regulation and monitoring and evaluation.
- Improve the linkage between the management support systems and strengthen the linkage between sector investments and service delivery requirements.
- Strengthen investment analysis within the health sector by assessing the recurrent cost implications of all future infrastructure, human resource and service investments.
- Sustain the experience gained under the SWAp and expand participation to include other stakeholders in health.

## **5. Human Resource Development**

While there has been substantial increase in the production of human resources for health, the wastage is almost equal to rate of production and hence there has been only marginal increases in the numbers. Staff are ill motivated and remunerations are low. The distribution of the existing human resource within the country has also been inequitable (favouring urban area) and the skill mix does not reflect health sector needs. Overall, the public sector is perhaps too large within the pluralistic health sector that currently exist.

### ***Recommendations***

There is the need to develop and implement a Human Resource strategy that addresses the needs of the sector and responds to the sector strategy. Such a strategy would need to among others deal with:

- Staff and skill mix to match service needs for the different levels.
- Innovative strategies to retain staff and confront issues of staff remuneration in the context of the local and international labour markets
- Staff distribution and redistribution with the objective of making services more equitable.

## **6. Health financing**

The overall flow of resources to the health sector increased over the period but fell below targets. While GoG and donors did not meet their projected targets, IGF outrun projection. The uncontrolled increases in user fees is regressive particularly to the poor and has the potential of widening inequalities in access to health services. Meanwhile, progress in the development of alternative financing schemes such as health insurance and pre-payment schemes has been limited and the implementation of the exemption policy has been fraught with difficulties.

Resource allocation to the district level increased and financial management capacity within the sector has improved. The resource allocation criteria within the sector did not have an explicit poverty focus and it was difficult to discern its linkage with service priorities. Furthermore, the cost base of the 5YPOW was not clear.

### ***Recommendations***

- Secure the commitment of both the GoG and donors to financing the next 5YPOW and use this as a basis for developing a business plan for the health sector.

- Review the resource allocation criteria and strengthen the linkage between the health strategy, priorities, resource allocation and service outputs.
- Rethink completely health financing mechanisms in ways that will make them pro-poor and remove substantially barriers to health care.

## **7. The Shape of the Future**

Given the analysis of progress to date and outstanding issues and challenges, what then are the key strategic areas for action for next 5 Year PoW to promote maximum health gain and the bridging of the “inequalities in health” gap?

### **New policy considerations**

At the national level, the new government has clear policy priorities for health including the abolition of ‘cash & carry’, the introduction of social insurance, and the placement of health workers in every village.

The poor macro-economic situation and unmanageable levels of debt repayments has led to the need for Ghana to opt for debt relief under the HIPC initiative. Under HIPC, more resources for social sector spending should become available but this will be dependent on the production of a clear national poverty reduction strategy which adequately identifies the range of actions which need to be taken across the various sectors to support poverty reduction. The implication of HIPC for the health sector is that health sector policy needs to demonstrate a clear pro-poor focus. This is wholly consistent with the findings of this analysis of the 5-Year Programme of Work.

### **International level developments**

Health-related International Development Targets (IDTs) have been signed up to by all governments to address IMR, U5MR, MMR, reproductive health, and HIV/AIDS. With the exception of HIV/AIDS, targets in these areas also formed the basis of the MTHS. Ghana’s progress against these key targets will be measured at the international level, hence strategies to address them need to be integrated into the next 5 Year PoW

There is a greatly heightened political interest in public health at the international level leading to substantial amounts of funding for public health initiatives (for example, Roll Back Malaria, Global Alliance for Vaccines and Immunisation (GAVI)).<sup>86</sup> The challenge for Ghana is to channel additional resources from international programmes in a way that is fully supportive of the PoW and SWAp. In the context of HIV/AIDS, access to pharmaceuticals such as generic drugs is likely to become a key issue. Ghana needs to ensure that it can access international pharmaceutical markets on as favourable terms as possible.

### **New directions for the health sector**

Overall the MTHS as an overarching strategic policy document is still relevant to give the needed direction to the health sector. However, there is the need for it to have:

- A clearer focus on achieving both equity and efficiency
- Targets to reduce inequalities in health outcomes as well as national averages (e.g IMR, MMR)
- An enhanced focus on health sector responsiveness and healthcare rights.

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<sup>86</sup> GAVI is a global partnership with countries that seeks to strengthen the provision of immunisation as well as introduce new and under used vaccines like yellow fever and Hepatitis B

The health sector as a pluralistic sector needs to be:

- *Guided*
- *Regulated*
- *Assessed*
- *Supervised*
- *Supported*

This may require broadening the range of providers particularly the private sector. The MoH would need to redefine its role in stewardship, regulation and performance contracting in order to bring this about.

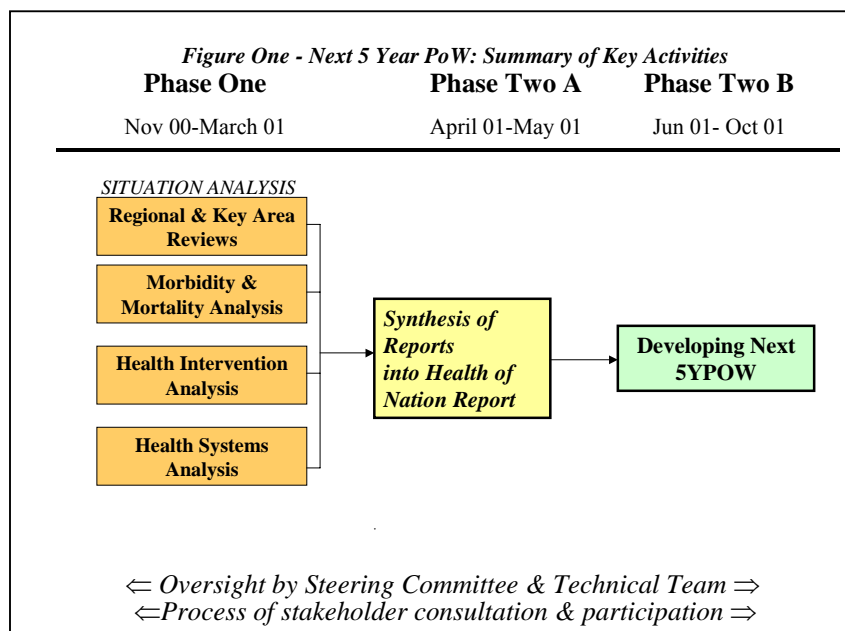
### **Government health service provision: Vision for the next 5 years**

The government health service provision arrangement needs to be positioned strategically in a pluralistic health sector. It should exploit its comparative advantage in promotive, preventive & life-extending services. It should be of high quality, accessible and attractive to the poor. It must exploit intra- and inter-sectoral collaboration. It must be efficient & productive: run by skilled, highly motivated but manageable staff strength. Its operations must be fully financed and affordable.

The institutional framework for achieving this (the Act 525) must be made fully operational. The key providers- the GHS and THS - must not only be given the mandate for service provision but the needed autonomy and flexibility to compete in this pluralistic sector. This will require innovative strategies to influence health and demand for health interventions. Achieving health-promoting interventions outside the health sector will become a major challenge. In all these partnerships with communities & civil society will be central to their work.

ANNEX 1: THE 20 SECTOR-WIDE PERFORMANCE INDICATORS 1997-2000 (TO BE ADDED)

## Key Activities and Time Frame



## Management of the process

### Composition of Steering Committee

1. Chairman – Professor Fred Sai
2. Prof F. Nkrumah – Chairman, GHS Council
3. Dr E.N. Mensah, Director General, GHS
4. Dr Holbroke-Smith, Korle Bu Teaching Hospital
5. Dr Joana Nerquaye-Tetteh, Executive Director, PPAG (Representative from NGOs)
6. Prof A.B. Akosa – GMA President
7. Mrs Ruth Gyan – Registrar, Nurses and Midwife Council
8. Dr B. Caiquo - Representative from Private Sector
9. Dr Ofosu - Representative from Private Medical Practitioners
10. Mr Charles Acquah - Representative from CHAG
11. Mr Gaisie - Representative from Ministry of Finance
12. Mr Mike Mensah - Rep. from Min. of Local Government and Rural Development
13. Dr Sam Adjei – Deputy Director General, GHS and Chairman of Technical Team
14. Mrs Johnson – Representative from NDPC
15. Dr Awudu Tinorgah – Acting Chief Director, MoH
16. Ms Liz Gaere - Representative from DFID
17. Dr Evelyn Awittor - Representative from World Bank
18. Ms Hanne Thorpe - Representative from Danida
19. Ms Kirsi Pekuri - Representative from EU
20. Mr Selassie d’Almeida - Representative from WHO
21. Mr Jan van de-Horst - Representative from Royal Netherlands Embassy

### Planning Committee

Dr Sam Adjei - Chairman  
Dr Eddie Addai - Coordinator  
Dr Nii Ayite Coleman  
Dr Jennifer Browne-Aryee  
Mr Tonny Seddoh  
Mrs Janet Kwansah

Ms Liz Gaere  
Ms Hanne Thorup  
Ms Kirsi Pekuri  
Dr Evelyn Awittor  
Dr Jan van der Horst

### **Composition of Technical Team**

1. Dr Sam Adjei - Chairman
2. Dr Awudu Tinorgah
3. Dr G.K Amofah
4. Dr Edward Addai - Coordinator
5. Ms Liz Gaere
6. Mr Dan Osei
7. Mr Tonny Seddoh
8. Dr Bob Pond
9. Dr Irene Agyapong
10. Dr Billy Bosu
11. Mr Divine Asiamah

### **3. Situational Analysis Group**

#### **Health and Disease Analysis Task Teams**

1. Prof R.B. Britwum - Chairman
2. Dr Sandaro Accorsi
3. Mr Daniel Darko
4. Ms Patience Cofie
5. Dr Ahmed Omar
6. Mr Jasper Adeku
7. Dr. Evelyn Awittor
8. Dr Bob Pond - Coordinator

#### **Priority Interventions Group**

1. Prof K. Nyame (Chairman)
2. Dr G.K. Amofah (Coordinator)
3. Dr. Cynthia Bannerman
4. Ms Ama DeGraft Aikins
5. Dr J. Tephre
6. Dr Gloria Quansah-Asare

#### **Health Systems Analysis Team**

##### **Sub-team 1 - Organisation and Management**

1. Dr Awudu Tinorgah - Chairman
2. Dr C. Ofosu
3. Mr. Yaw Brobbey-Mpiani
4. Mr Sam Boateng
5. Dr Evelyn Awittor
6. Ms Liz Gaere
7. Mr. Tonny Seddoh
8. Dr Edward Addai (Coordinator)

##### **Sub-team 2 - Human Resource Generation**

1. Prof S.A. Amoah - Chairman
2. Dr Ken Sagoe
3. Mr Tonny Seddoh - Coordinator
4. Mr Isaac Adams
5. Mr. Frank Boris Hemans
6. Mr Devine Asiamah
7. Maj. (RTD) Regina Akai-Nettey
8. Mr. Said Al-Hussein

##### **Sub-team 3 - Health financing**

1. Mr Patrick Nomo – Chairman
2. Mr George Dakpallah



3. Mr Dan Osei – Coordinator
4. Dr Frank Nyonator

5. Ms Helen Dzikunu

**Technical Assistants**

1. Dr Roger Hay - Health Economist
2. Dr Paul Arthur - Epidemiologist
3. Dr Lucy Bonnerjea - Social Development Expert

ANNEX 3: INVENTORY OF HEALTH AND HEALTH-RELATED LAWS

<b>Organization / Statutory Body</b>	<b>Statute</b>	<b>Jurisdiction</b>
<b>Service Delivery and Premise Regulation</b>		
Ministry of Health. Ghana Health Service. Teaching Hospitals	Ghana Health Service and Teaching Hospitals Act 525, 1996	Organising and Management of Health Service Delivery Financing of Health services.
Ministry of Health: Private Hospitals and Maternity Homes Board	Private Hospitals and Maternity Homes Act.	Regulation of private medical and midwifery practice.
Ministry of Health: Traditional Medicine Practice Council (yet to be set up)	Traditional Medicine Practice Law 2000, Act 575	Standard setting for practice of traditional and alternative medicine.
Ministry of Health	Mental Health Law, 1990	Management of the mentally ill and administration of mental hospitals and facilities.
Ministry of Health Ministry of Local Govt. & Rural Development.	Mortuaries & Funerals facilities Act, 1998 Act 563.	Control and regulation of facilities connected with storage and disposal of human beings.
<b>MINISTRY OF INTERIOR,</b> Ministry of Health	Coroner's Act, 1960	Provides for situations in which an inquest should be held and the administrative procedures for achieving it
<b>Health Financing</b>		
Ministry of Health and Accountant General's Department	Financial Administration Decree 1979  Financial Administration Regulation LI 1234, 1979.  Hospital Fees Regulation 1985, LI 1313	Control and regulation of financial administration.
Ministry of Finance, Ghana Supply Commission	Ghana Supply Commission Law, 1990, PNDCL 245	Provides for scope and procedures for procurement in the public sector
<b>Regulation of Health Professionals</b>		
Nurses and Midwives' Council	Nurses and Midwives NRCDC 117, 1972 LI 683	Regulation of nursing and midwifery professionals. Ensuring standards for nursing/midwifery care.
Pharmacy Council	Pharmacy Act 1994 Act 489.	Regulation of professionals in field of pharmacy and rational drug use
Medical and Dental Council	Medical and Dental Decree 1972	Ensuring standards in practice of medicine and dentistry.
<b>Regulation of Product Quality and Safety</b>		
Ministry of Health Food and Drugs Board.	Food & Drugs Law, 1992 (PNDC L 305B) Food & Drugs Amendment Act, 1996 (Act 523)	Regulation of Quality and safety of food and drugs.
	Standards Decree	Regulation of finished substances

Ghana Standards Board	Ghana Standards Board General travelling Rules, 1992, LI 1541	produced or imported into the country.
<b>Other Public Health Laws</b>		
Ministry of Local Government and Rural Development	Local Government Act, 1993	Collaboration between district assemblies and decentralised bodies of government
Water Resources Commission	Water Resources commission Act, 1996 Act 522	Regulation of use and preservation of water bodies.
Ministry of Local Government and Rural Development	Towns Ordinance Cap 86, 1954	Law on statutory nuisances control of overgrowth of weeds, animals, overcrowding, waste disposal, premise cleansing vermin, water etc
Ministry of Local Government and Rural Development	Mosquitoes Ordinance Cap 75 Vaccination Ordinance Cap 76 Quarantine Ordinance Cap 77 Infectious Disease Ordinance Cap, 1908 Amended in 1924	Regulation of environment for prevention and control of diseases.
Various Assemblies	Bye laws e.g. Ghana Local Govt. Bulletin published by Authority No. 19, September 1995 A.M.A. Byelaws	
MLGRD	Model Byelaws Mg. Control of Restaurants and Eating Houses.	Regulation of sanitation and nuisances in eating-places.
MLGRD	Registration of Birth and Death Act 301 1965	Documentation of Deaths
Ministry of Justice	Criminal Code Act 29, 1960 (Ch 8 & 9)	Regulation of criminal activities, including those that are harmful to health
Employment and Social Welfare	Factories, Offices and Shops Act 1970, Act 328  Boilers and Pressure Vessels Safety Regulations, 1970 . L.I. 663  Workmen's Compensation Law, 1987  Children's Act 560, 1998	Factories, offices and shops.  All manufacturers and users of boilers and pressure vessels.  All registered employers  Welfare of children including protection from unsafe work.
Mines and Energy	Mining Regulations, 1970, L.I. 655 Explosives Regulations, 1970, L.I. 666  Small Scale gold Mining Law, 1989. PNDC 218 section 11.	All registered mines and works  The importation, storage, disposal and use of explosives.  All persons licensed to mine gold.

	Petroleum (Exploration and Production) Law, 1984	All petroleum operations.
Environment, Science and Technology (Radiation Protection Board)	<p>Radiation Protection Instrument, 1993, L.I. 559</p> <p>Radioactive Waste Management Regulations 1997</p> <p>Environmental Protection Agency (EPA) Act 490, 1994</p> <p>Pesticides Control &amp; Management Act, 1996, Act 528</p> <p>Environmental Impact Assessment (EIA) Regulations, 1999, L.I. 1652*</p>	<p>The control and use of any ionising and radiation sources.</p> <p>Control of disposal of radiation waste.</p> <p>General responsibility for overseeing all efforts at protecting the environment for sustainability.</p> <p>Control of manufacture, importation, use and disposal of pesticides</p> <p>Evaluation and mitigation of adverse impacts of plans, projects and programmes.</p>
Roads and Transport	<p>Ghana Road Traffic Offences Regulations 19774, LI 952.</p> <p>National Road safety Commission Act 567, 1999</p>	<p>Promotion of safety of drivers and other road users.</p> <p>Safety in road use</p>

