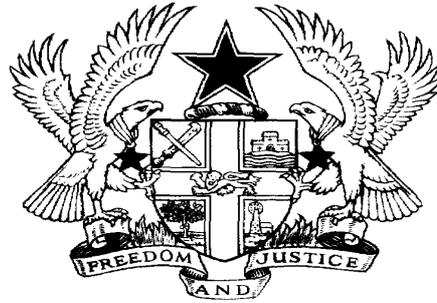


Ministry of Health, Ghana



HEALTH SECTOR 5 YEAR PROGRAMME OF WORK 2002 - 2006

Independent Review of POW- 2006

June 2007

Acknowledgements

The independent review of the annual POW was undertaken by a team of international and Ghanaian experts, at the request of Ministry of Health, Ghana. It represents the final stage of the annual review process of the health sector. This annual review scrutinised the fifth year of the Ministry of Health's second Five Year Programme of Work 2002-2006, being the POW 2006

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The independent review team included the following members: René Dubbeldam (teamleader), Sophie Witter (health economist), Diana Silimperi (child health), Julia Hussein (maternal health), Jurrien Toonen (public health and health systems development), Delanyo Dovlo (HRH), Rosana Agble (nutrition), Phyllis Christian (governance issues), Richard Oppong (supply chain management, logistics). MOH added to the team four expert-counterparts: Ernestina Mensah-Quainoo (district health care), Tom Awua-Siaw (institutional care), Ahmadiel Ben Yehoda (regenerative health) and Addai Munukun (private health care). The team bears collective responsibility for the findings and opinions expressed in this report. They cannot be attributed to team members' organisations, their sponsors or to the Ministry of Health.

Executive Summary

Overall sector performance

Looking at the sector-wide indicators, overall sector performance provided a mixed picture. While indicators on specific programmes, such as EPI, TB control, malaria, HIV/AIDS and nutrition, showed positive trends, others, such as those on institutional care, did not. Some argue that the pace of the increase has been slow the last few years, but it seems that the increase is certain and sustainable. It should be realised that maintaining high coverages, such as EPI, is an achievement in itself. A major challenge now is to increase the sector's focus on the poor and the difficult-to-reach. Even in urban areas, there are still pockets of extreme poverty, where output- and outcome indicators are not at all favorable (e.g. high stunting rates in some submetro's in Accra!). To achieve MDGs, it is not only important to have programmes and systems in place, but also to systematically target the poor, in terms of resource allocation, design of systems at the grassroot level, and in reporting.

Indicators on institutional care clearly show that efficiency gains must be made. The utilisation of hospitals and health centres lags behind, and this should be looked at in greater detail, since a range of factors should be considered: accessibility of primary care, socio-cultural barriers, imperfections in the referral system, insufficient collaboration with other sectors, including the private sector.

Some 'system' issues need to be addressed as a matter of priority: data collection / HMIS, basic equipment and transport, scaling-up effective coverage of health institutions and community based health care, by making use of local data and local knowledge on coverage gaps.

Healthy Lifestyles and Environment

There have been calls for major changes in global health care. Ghana's "new paradigm" – of "regenerative" health – marks the beginning of a focused effort to elevate prevention to a logical place within the sector. It has the potential to not only address rising NCD incidence, but because it addresses the broader determinants of health, can assist in strengthening basic services.

GoG and MOH are commended for an ambitious start in this direction, but is cautioned in that such a strategy will require focused attention, sustained resourcing and broad community mobilisation. But because the emerging trends, risk factors and benefits of behaviour changes are clear, the anticipated dividends will be both substantial and inevitable.

Achieving MDGs and scaling-up services

The team addressed the performance of the health sector during POW06, concentrating on maternal and child health, as well as nutrition – using the lens of attaining MDG 4&5 goals. In short, although sector-wide performance indicators were not met, with one exception, nonetheless, there were areas of good programme performance (EPI), others that showed growing gains (maternal health – institutional deliveries, TB) and achievements that were considerable, but were not "captured" by the current indicators (eg development of pre-service curriculum of IMCI for nurses). The review team also observed that during 2006 flexible funding decreased at district and subdistrict levels. Such a situation would be expected to impact negatively on MCH services. Thus, in this context, "holding the line" in MCH health status performance is an achievement. Finally, two other issues related to performance were addressed, the effectiveness of the current indicators to evaluate sector-wide performance in MCH and nutrition, and the persistent under-achievement in terms of targets. Recommendations for several new indicators were suggested, as well as the importance of developing capacity in the GHS/MOH to undertake better planning so that targets will be evidence-based and more effective.

Findings from the child health analysis indicated that Ghana was currently not on track to meet MDG 4, and that significant commitment to new community-based strategies will be needed, along with district leadership, political will and investment. To achieve MDG 4, neonatal mortality must be reduced; and community-based delivery of proven (evidence-based) child health interventions directed at the most common causes of mortality must be scaled up to achieve full coverage. In this context, the development of the HIRD strategy is most relevant. Essential nutrition preventive actions must be included in this package of high impact interventions. The engagement of community organisations, outside of the formal health system will be critical. An illustrative package of 15 preventive and curative interventions was presented, along with an analysis of the current coverage gap for each intervention. Implementation strategies were discussed, and both short and medium term recommendations made to get Ghana to achieve MDG 4.

Ghana's performance and progress toward MDG 5 was deemed visible, but slow. To reduce maternal mortality by three quarters by 2015, strategies and recommendations to accelerate progress were made including: invest in measurement of trends in maternal mortality; promote institutional deliveries in health centres for normal deliveries by making them more acceptable to women, ensuring basic obstetric services are provided and by improving health centre to hospital referral; improve clinical quality of care in hospitals; and target the poorest and most disadvantaged sectors of society to provide better access to services, especially for intrapartum and emergency delivery services, as inequities are greatest in these areas.

Strong Systems and Basic Health Services as a prerequisite for achieving MDGs

Basic health systems are a prerequisite to achieving the MDGs and other priority health outcomes. A main challenge is to increase overall coverage and to reach the poor more effectively. This requires more careful planning of health facilities and taking into consideration current utilisation of facilities, the availability of human resources and core support systems. The district level remains the key focus of attention as well as efforts to deploy and motivate productivity among health workers and demand better accountability for service results from managers.

Institutional care indicators – OPD rates, admission rates, bed occupancy and length of stay - show that efficiency gains need to be realized. This requires thorough understanding of all factors underlying the populations' access and use of facilities. Apart from strengthening HMIS- this constantly emerged during the review process - specific action-oriented research is needed to identify effective strategies to scale-up use of basic health services at the appropriate levels. The review team noticed that the roll-out of CHPS is less than expected. Since this strategy of community based health care is complementary to services delivered by the institutions, and has the capacity to improve coverage of certain interventions, in particular in child health, the team feels that scaling up (locally acceptable and feasible models of) CHPS – also in urban areas where pockets of poverty are clearly prevalent – is mandatory.

It appears that increased salaries and other measures have reduced attrition and improved retention. The improved salaries should translate into increased productivity of the workforce and new incentives and administrative regulations should be directed at achieving better distribution and performance from staff. In this report, suggestions are given to introduce innovative non-financial incentives to improve pro-poor staff distribution. In the context of achieving MDGs, the team recommended to have a close look at the current and needed skills-mix of newly trained cadres. Lessons can definitely be learned from countries where paramedic staff – such as clinical officers and medical licentiates – is the 'backbone' of district health care, including basic surgery and essential obstetric care, in deprived areas. Clear strategies for staff distribution must be established

(along with an effective policy of non-financial, innovative incentives) to target specific deprived locations and job types/cadres critical to attaining key MDGs; it may be best to consolidate the current spread of new cadres into as few categories. The infusion of 13,000 basic care workers should not lead to overlap with existing cadres; long term implications of deploying these new cadres should be assessed (e.g. the need for professionals who will supervise them). In the report, suggestions are made to introduce new indicators for monitoring of qualitative aspects of HR development: trainees competence, distribution of recent employees, and workload per staff.

The review team also looked at skills and needs of mid-level managers, at the district level. There is a need to design and formally publish job descriptions, competency frameworks and performance results for all types of managers. This should be linked with performance contracts with clear performance results. Medical Superintendents will need short management training programmes. Best practices from some Regions, where district managers are challenged to 'champion', were cited in this review report as examples that merit introduction nationwide. Overall, there is a need to review and establish a strategy and mechanisms for improving management systems and performance - a) the training/assigning of BMC heads; b) management competencies and skills development, (c) robustness of management support systems (e.g. HMIS) and (d) creating the incentives that motivates managers to perform with the understanding that performing managers drive the performance of other staff.

Although the team did not thoroughly assess procurement issues and logistics (transport, equipment, drugs management), during this review it was noticed that the status of transport and equipment is worrying: the fleet is aged, and at the levels of rural and urban health centres and district hospitals, basic equipment, needed for basic health services, including child and maternal care, is grossly lacking or in a bad state. This was confirmed during the field visits, and this implies the need for an important investment to be done during the next POW.

Promoting a 'corporate health sector'

The team reviewed the key issue of sector governance and the concept of "corporate health" given what appears to be an increasingly pluriform sector. Relations between Ministry of Health and its agencies were looked at and suggestions are given as to how to strengthen linkages, relationships and accountability systems. These links should establish good business relationships between MOH and its agencies, reinforcing accountability of Agencies to the MOH and of the MOH to sector stakeholders.

The annual sector review process needs to be revised and further internalised and specific recommendations have been made in the report. It is mandatory that programme managers together with regional and district health services managers, eventually supported by external expertise, jointly analyse available data, and assess sector performance. External reviews can be done less frequently, and should be primarily used to assess the soundness of internal joint analysis.

Constraints in and opportunities for public-private collaboration are described in this review report. This 'ppp' is not only important for enhancing coverage of basic health services, but is also needed to better focus on other determinants of health: water, sanitation, lifestyle factors, etc.

Financing the health sector.

Total per capita health expenditure has grown in 2005-6, by 40% in nominal and 26% in real terms. Annual per capita expenditure is now over \$25, using existing accounts which reflect some of the NHIS expenditure. This includes public and donor sources, as well as

user fees paid through public facilities. Total health as a proportion of total government expenditure increased from 12% in 2002 to 14% in 2005 and 2006.

The biggest growth came from the GoG, whose share increased by 10% compared with 2005, and which grew by 54% in real terms. Looking at the GoG funding source for health as a proportion of overall GoG expenditure, however, it is predicted to diminish from 13% of the budget for 2006 to 12% in 2007, with an MTEF projection of 10% for 2008 and 2009. IGF has shown strong growth – 25% in real terms – which will in part be linked to the NHIS. The Health Fund reduced by 36% in real terms, while earmarked aid reduced by 18%. The NHIS is contributing 5% of total sectoral resources, according to the MoH financial statement, but in real terms this figure is higher, as the financial statement only covers IGF payments and national level transfers at present. The NHIF income and expenditure figures reveal that its main income source is the VAT-levy. Despite the increase in resources, the sector ran a (small: 0.2% of overall revenue) deficit in 2006 for the first time in the 5 year PoW.

For the first time in this 5 year PoW, the proportion of aid from earmarked sources is larger than non-earmarked (it now forms 61% of total grant aid, partly as a result of the shift to MDBS, but also the growth of global initiatives). As well as reducing in volume, aid mechanisms have become increasingly fragmented, presenting practical challenges of aid coordination.

In terms of expenditure by line items, PE continues to grow, both in terms of its share and in absolute terms. 2006 saw a new wage deal, which will continue to push wages up in 2007. The share expended on PE rose by 6% compared to 2005 (to 47% of total expenditure), while administration dropped to 5%. The share for services fell slightly to 26% and capital investment rose slightly to 22%. PE is almost totally funded by the GoG. Administration receives most of its support from IGF, with the remainder from the GoG and the Health Fund. For services, earmarked funds, IGF, Health Fund, GoG, and NHIS all contributed. For investment, on the other hand, financial credits were the major contributor (followed by HIPC, NHIS, GoG, HF, IGF).

Analysis by BMC reveals that the HQ level received 21% of the total expenditure in 2006, which is high relative to the target of 12%. The teaching hospitals and psychiatric hospitals received 16%. The regional level (regional administrations, plus regional hospitals, plus training institutions) received 17% (target: 23%), and the district and sub-district received its targeted 46%, above their targeted 42% (though the sub-district share has reduced, relative to its level in 2002).

Comparing expenditure with the budget for 2006, there is a good match in totals, but significant differences in internal break-down by source and line item.

Exemptions funding has dropped from 8% of recurrent funding in 2005 to 2.2% in 2006. This is linked to the development of the NHIS, which is intended to provide social protection. The only category of exemption within the NHIS which is *explicitly* pro-poor is the indigents group¹. In 2006, 0.7% (expected: 0.5%) of the population were registered as indigents (2005: almost 4%). Coverage for the NHIS increased in 2006, though slower than predicted. 19% of the total population have received the ID cards which entitle them to treatment. An ILO cash flow projection carried out in 2006 showed that with its current design, the national scheme is likely to go into deficit if coverage rises too quickly. 60% of members in 2006 were in the 'exempt' category – i.e. rely on transfers from the national fund to cover their costs – and premia for both exempt and paying members are low in relation to the cost of providing services. Expectations of the NHIS should be reined in for the moment, and a variety of cost control measures taken. The equity impact of the scheme is of some concern, given that the mechanism for enrolling the poorest is

weak and that the current operation of the scheme still favours those with the best access to facilities.

HIPC funds contributed 5% of total expenditure. These funds were used for rehabilitation of KATH, exemptions and guinea worm eradication.

A total of 88 billion cedis, from a variety of sources, was spent on exemptions, including the maternal delivery exemptions scheme, general exemptions, guinea worm eradication and the children's hospital. Much of the maternal and general exemptions funds were used to pay outstanding debts from 2005.

Disbursement of funds for the HF and for the GoG services was low and irregular in 2006. While flexible funds were reduced, earmarked service funds grew. In addition, at the district level, there were problems accessing administration funds from the district treasuries.

The 2007 budget is 75% funded for the year. Capital investment is particularly under-funded (by more than 60%). This is worrying, given also the observations by the review team with regard to an aged fleet and missing basic equipment in health facilities.

The MoH and health agencies find themselves in a difficult position, with cost pressures (particularly the rising wages, and the pressure for them to rise further), on the one hand, and on the other hand, a resource envelope which is unlikely to continue to grow at the rate it has done during the past 5 year PoW, combined with pressure to improve outputs and outcomes. How can this circle be squared? The answer must lie in increased advocacy to raise the contribution of the GoG to the Abuja target for public spending on health; a renewed commitment to health – and to flexible resources which contribute to sector goals - by DPs; careful management of the NHIS so that it become a force for both increased access and increased responsiveness in the health system; giving managers the means to reward good performance and sanction bad performance, using team or individual incentives; and – last but not least - focus within service delivery on strong district services, which are fundamental for the targeted interventions designed to reach the MDGs.

Abbreviations

ACSD	Accelerated Child Survival and Development Project
ACT	Artesimine-Amodiaquine Combination Therapy
ADHA	Additional Duty Hours Allowance
AFP	Acute Flaccid Paralysis
AG	Auditor General
AIDS	Acquired Immune Deficiency Syndrome
AMO	Assistant Medical Officer
ANC	Ante Natal Care
ART	Anti Retroviral Therapy
ASR	Ashanti Region
ATFR	Accounting, Treasury and Financial Reporting
AYA	African Youth Alliance
BCC	Behavioural Change & Communication
BMC	Budget and Management Centre
BOR	Bed Occupancy Rate
BPEMS	Budget and Public Expenditure Management System
CAGD	Controller and Accountant General's Department
CBD	Community Based Distribution
CBGP	Community Based Growth Promotion
CBSS	Community-Based Surveillance Programme
CDC	Communicable Disease Control
CDR	Case Detection Rate
CEU	Central Estates Unit
CFR	Case Fatality Rate
CHAG	Christian Health Association of Ghana
CHIM	Centre for Health Information Management
CHN	Community Health Nurse
CHO	Community Health Officer
CHPS	Community Health Planning and Service
C-IMCI	Community Component of Integrated Management of Childhood illness
CMA	Common Management Arrangements
CME	Continuing Medical Education
CMS	Central Medical Stores
COP	Code of Practice
CP	Cooperating Partner
CPR	Contraceptive Prevalence Rate
CR	Central Region
CSM	Cerebrospinal Meningitis
CVA	Cerebral-Vascular Accident
CVS	Central Vaccine Store
CWIQ	Core Welfare Indicators Questionnaire
CYP	Couple Years Protection
DA	District Assembly
DACF	District Assembly Common Fund
DANIDA	Danish International Development Assistance
DCE	District Chief Executive

DFID	Department for International Development
DH	District Hospital
DHA	District Health Administration
DHMT	District Health Management Team
DHS	Demographic and Health Survey
DMHIS	District Mutual Health Insurance Schemes
DOT	Directly Observed Therapy
DP	Development Partners
DPF	Donor Pooled Fund
DPT	Diphtheria Pertussis and Tetanus
DPT	Vaccine against Diphtheria, Polio, Tetanus
EBF	Exclusive Breast Feeding
EmOC	Emergency Obstetric Care
EMT	Emergency Medical Technicians
EMU	Estate Management Unit
EO	Expected Output
EPI	Expanded Programme on Immunisation
EU	European Union
FC	Financial Controller
FD	Finance Division
FDB	Food and Drug Board
FE	Financial Encumbrance
FH	Finance Handbook
FP	Family Planning
FY	Fiscal Year
GAC	Ghana AIDS Commission
GAR	Greater Accra Region
GAS	Ghana Ambulance Services
GDHS	Ghana Demographic Health Survey
GDP	Gross Domestic Product
GHS	Ghana Health Service
GMA	Ghana Medical Association
GNDP	Ghana National Drugs Programme
GOG	Government of Ghana
Govt	Government
GP	General Practitioner
GPRS	Ghana poverty reduction strategy
GRNA	Ghana Registered Nurses Association
GW	Guinea Worm
GWEP	Guinea Worm Eradication programme
HASS	Health Administration and Support Services (Division of MOH)
HBC	Home Based Care
HC	Health Centre
HEU	Health Education Unit
HF	Health Facility
HIO	Health Insurance Organisation
HIV	Human Immune Deficiency Virus
HRDD	Human Resource Development Division (of MOH)

HTI	Health Training Institution
ICD	Institutional Care Division (of MOH)
ICT	Information Communication Technology
IDSR	Integrated Disease Surveillance and Response
IEC	Information, Education and Communication
IGF	Internally Generated Funds
ILO	International Labour Organisation
IMCI	Integrated Management of Childhood illness
IME	Information Monitoring Evaluation
IMR	Infant Mortality Rate
IPD	Inpatient Department
IPT	Intermittent Preventive Treatment
IST	In Service Training
ITN	Insecticide Treated Net
JICA	Japan International Co-operative Agency
KNCV	Royal Netherlands TB Association
LI	Legislative Instrument
LSS	Life Saving Skills
M&E	Monitoring and Evaluation
MA	Medical Assistant
MCH	Maternal and Child Health
MDA	Ministries, Departments and Agencies
MDBS	Multi Donor Budget Support
MDC	Medical and Dental Council
MDG	Millennium Development Goals
MDR	Multi Drug Resistance
MIS	Management Information System
MMR	Maternal Mortality Rate
MOF	Ministry of Finance
MOH	Ministry of Health
MOH	Ministry of Justice
MOLGRD	Ministry of Local Government and Rural Development
MOU	Memorandum of Understanding
MTEF	Medium Term Expenditure Framework
MTHS	Medium Term Health Strategy (Toward Vision 2020)
NACP	National AIDS control programme
NCD	Non communicable disease (control)
NDPC	National Development Planning Commission
NGO	Non-Governmental Organisation
NHIS / C	National Health Insurance Scheme / Council
NID	National Immunisation Day
NMC	The Nurses and Midwives Council
NMCP	National Malaria control programme
NNMR	Neo-Natal Mortality Rate
NR	Northern Region
NTP	National Tuberculosis control programme
OPD	Out Patient Department
ORS	Oral Rehydration Salts

PAC	Post Abortion Care
PC	Pharmacy Council
PE	Personal Emoluments
PHD	Public Health Division (of the MOH)
PLWHA	People Living with HIV/AIDS
PMM	Prevention of Malaria Mortality
PMTCT	Prevention of Mother to Child Transmission
PNC	Postnatal Care
POW	Programme of Work
PPM	Procurement Procedures
PPME	Policy, Planning, Monitoring and Evaluation (Division of MOH)
PRSC	Poverty Reduction Support Credit
PUFMARP	Public Sector Financial Management Reform Programme
QAU	Quality Assurance Unit
QC / A	Quality Control / Assurance
RBM	Roll Back Malaria
RCC	Regional Coordinating Council
RCH	Reproductive and Child Health
RDHS	Regional Director of Health Services
RDU	Rational Drug Use
RH	Regional Hospital
RHA	Regional Health Administration
RHMT	Regional Health Management Team
RMS	Regional Medical Stores
RT	Review Team (POW 2004)
SAFE	Strategy for Trachoma Control
SBDs	Sub-Districts
SCF/UK	Save the Children Fund/UK
SD	Supervised Delivery
SFO	Serious Fraud Office
SIP	Sector Investment Programme
SSDM	Stores, Supplies and Drug Management (Division of MOH)
STDs	Sexually Transmitted Diseases
STG	Standard Treatment Guidelines
STI	Sexually Transmitted Infections
SWAP	Sector-Wide Approach
T&AMC	Traditional and Alternative Medicine Council
TA	Technical Assistance
TAP	Treatment Acceleration Programme
TB	Tuberculosis
TBAs	Traditional Birth Attendants
TH	Teaching Hospital
TORs	Terms of Reference
TT	Trachoma Surgery
TTBA	Trained TBA
USMR	Under Five Mortality Rate
UER	Upper East Region
UNFPA	United Nations Fund for Population Activities

UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
UWR	Upper West Region
VCT	Voluntary Counselling & Testing
VFM	Value for Money
VR	Volta Region
WB	World Bank
WHO	World Health Organisation
Wt/A	Weight for Age
YF	Yellow Fever

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1 INTRODUCTION

Background

This document is a report of the fifth annual review conducted of the second Five Year Programme of Work (POW-II) of the Health Sector in Ghana (2002-2006).

Ghana's overall long-term vision for growth and development was captured in the document GHANA VISION 2020 in 1993 and in the Medium Term Health Strategy towards Vision 2020 (MTHS, 1995). The second 5-years POW builds on the results obtained during the first POW, and on the findings of the 'Health of the Nation' report (MOH, August 2001). Broad policy directions are also provided by the Growth and Poverty Reduction Strategy 2006-2009 (GPRS-II; GOG, 2005). As to health and health care, the GPRS focuses on three key areas: bridging the equity gap, ensuring sustainable financing arrangements for the poor, and enhancing efficiency in the health system. As to the equity gap, a range of priorities have been determined, including – amongst others - progressive redistribution of health workers towards the deprived areas; increasing the coverage of CHPS; implementing high yielding strategies to reduce infant- child and maternal mortality; eradication of Guinea Worm; reduction of unmet need in Family Planning. The introduction and gradual expansion of a nation-wide health insurance scheme would be needed to increase access to services for the poor. Efficiency within the sector would be enhanced by a series of measures to enhance 'systems development' (HMIS, PPP and intersectoral collaboration, HRM).

This review focuses especially on the POW 2002-2006 (including the Common Management Arrangements – II) and the annual POW-2006. For 2006, key concerns were formulated as follows (POW-2006):”

- Persistent inequalities in access to and coverage of health services;
- Inadequate attention given to health promotion, protection and rehabilitation of the sick and disables;
- Stagnating health indicators despite increasing health sector spending;
- Incorporating the implications of the National Health Insurance Scheme in the planning and budgeting of BMCs and agencies;
- Inadequate numbers of human resource in spite of the increasing human resource spending;
- Inadequate use of information to monitor performance and improve productivity.”

In POW-2006, these key concerns were translated into the policy thrust for 2006. Services for the poor in deprived and hard-to-reach areas would be prioritised and scaled

up. Moreover, services needed to achieve MDGs 4 (child health) and 5 (maternal health) would get special attention. Joint planning between MOH, its agencies and other sectors would also be further promoted, in the context of decentralisation and public private partnerships. Implications of the expansion of NHIS would be incorporated in plans and budgets. Human resource management and development would get more attention, to move towards an equitable distribution and to retain qualified staff for the country. Finally, more emphasis would be put on performance and results in terms of service outputs, service productivity and efficiency, and health outcome.

The report: purpose and objectives

The main purpose of this annual review is to review the previous year's performance (i.e. achievements, weaknesses and challenges), but not at the expense of looking forward also to immediate steps for improvement and long term advancement. The broad objectives of the 2006 review are included in Appendix 1.

The TORs required the team to provide indepths analyses in selected areas, related to achieving the MDGs and scaling-up services related to these, in particular MDGs 4 and 5. During the briefing session on the first day of the review mission, chaired by the Director of MOH/PPME, the TORs were discussed in detail, and it was decided that the review would be shaped around the following four themes:

- Healthy lifestyle and environment;
- Health, reproduction and nutrition services;
- Capacity development and health systems development; and,
- Governance and Financing

Furthermore, the team was explicitly asked to make recommendations on the internal and external annual review process itself.

The team was requested to come up with feasible and practical suggestions (HOW) to move forward, rather than to limit itself to a description of achievements and constraints in 2006. Due to the strong focus on child health and maternal health, and on governance issues, the team had to make compromises in terms of scope. It was not always possible to cover in great depth a range of other, important areas in the health sector.

Organisation and methodology

During the review, the technical review of programmes and key institutions (regulatory bodies; teaching hospitals) took place and the review team had the opportunity to attend to these meetings.

At the start of the review, MOH made available to the team a CDROM with key documentation on the period 2002-2007. Powerpoint presentations were made available to the team on BMC reviews at the regional level, and – immediately after the technical performance reviews (second week of the review period) – Powerpoint presentations by managers of public health programmes, institutional care, and key institutions. During the review period, regional reports were not finalised, nor were the financial data on 2006. Therefore, the team had difficulties in systematically presenting and disaggregating key data.

As much as possible, the team members contacted their ‘natural’ counterparts within MOH and other institutions, to discuss and interpret findings. During the review process, all team members held bilateral interviews with key stakeholders (see Appendix 2; persons met). Furthermore, several roundtables were organised with specific interest-groups around specific themes: maternal health, child health, role of DPs in supporting the POW. MOH made PPME staff available to support the team in logistics. Office space was made available in Headquarters of the Malaria Control Programme. Three field visits were conducted in respectively Volta Region, Western Region, and Greater Accra Region, to validate and supplement reports (and data) received. During a short 1-hour debriefing session, a broad overview was given to key stakeholders on the team’s key messages.

Structure of the report.

The Executive Summary of the Report presents the key messages of the independent review team. These messages have been presented during the debriefing session at MOH/HQ, by the end of the independent review. Chapter Two presents the updated table (data provided by MOH) with the agreed sector-wide indicators. In subsequent chapters, these indicators are discussed, by using additional available data from the routine health information system and relevant additional (survey) data. Chapter Three to Seven follow the above mentioned four themes. In Chapter Three, an overview is given of policy development and progress made with regard to health promotion and lifestyle issues. In Chapter Four, in-depth analyses are provided on specific MDG issues, particularly on nutrition, child health, and maternal health. This chapter also provides information on other priority public health programmes (mainly based on the performance hearings during the mission). Chapter Five focuses on health systems development. Here, human resource development is highlighted; furthermore, systems development in transport and equipment management, and capital investment planning, are dealt with. Chapter Six includes sub-chapters on governance issues, and Chapter Seven on health financing (resource envelope for the health sector; resource allocation; development of the National Health Insurance Scheme).

2 THE SECTOR-WIDE INDICATORS; TARGETS AND ACHIEVEMENTS 2006

The table below summarises the values of the sector-wide indicators as agreed in the POW 2002-2006. The values of the indicators have been provided by MOH, during the review. This set of indicators provides a broad view of the sector in terms of resources, processes, outputs of health services and public health programmes, as well as ‘outcome’, in terms of morbidity and mortality. Obviously, it is by no means possible to capture the whole sector by this limited – and to some extent arbitrary - set of indicators, but it should at least provide a first assessment on the performance (effectiveness, efficiency, resource base) of the sector as a whole, in terms of achieving defined targets in the POW. This section of the report merely presents the set of sector-wide indicators during POW 2002-2006, as well as the agreed targets².

In the subsequent chapters on services, support systems, and finance, an indepth analysis will be given of activities and programmes directly related to the sector-wide indicators, with a special focus on achieving the MDGs. In these analyses, additional data will be shown, to better understand any progress or stagnation of the sector-wide indicators.

Table 1. Sector-wide indicators 2002-2006

Sector-wide indicators	Achievements				Targets	Achievements
	2002	2003	2004	2005	2006	2006
<i>Health status</i>						
Infant Mortality Rate per 1000 live births		64			50	71
Under five mortality Rate per 1000 live births		111			95	111
Maternal Mortality Ratio per 100, 000 live births	214				150	
Under five who are malnourished			33		20	18
HIV sero prevalence (%)	3.4	3.6	3.1	2.7	2.6	2.9
<i>Service Outputs and Health Service Performance</i>						
% EPI coverage (Penta3)	78	76	75	85	85	84.2
% EPI coverage (measles)	83	79	78	83	90	85.1
AFP non polio rate (%)	1.9	1.3	1.5	1.68	>1	1.55
Guinea worm cases	5611	8290	7275	3981	0	4136
<i>Reproductive Health Services</i>						
% FP acceptors	21.0	22.6	24.3	22.6	40	26.8
% ANC coverage	93.7	91.2	89.2	88.7	99	88.4
% PNC coverage	53.6	55.0	53.3	52.7	65	55.9
% Supervised deliveries	32.0	55.0	53.4	54.1	60	44.5

Sector-wide indicators	Achievements				Targets	Achievements
	2002	2003	2004	2005	2006	2006
% Maternal deaths audited	84	85	55	75.6	50*	52.0
<i>Clinical Care Services</i>						
Outpatient per capita	0.49	0.5	0.52	0.53	0.6	0.52
Hospital admission rates per 1000 population	35.3	36.0	34.5	36.5	40	32.6
Bed occupancy rates (%)	65.5	64.1	63.0	58.4	80	50.9
Under five malaria case fatality rate (%)	3.7	3.6	2.8	2.4	1	2.1
Tuberculosis Cure Rates (%)	53.8	63.9	65		65	67.6
No. of specialized outreach services carried out	158	175	145	164	200	170
<i>Level and Distribution Health Resources</i>						
% Tracer drug availability	85.0	85.0	87.5	84.7	95	73.8
Doctor to Population ratios by regions: 1:X	18,274	16,759	17,615	10,380	16,500	10,700
Nurse to Population ratios by regions, 1:X	1,675	1,649	1,513	1,578	1,500	1,587
No. of functional CHPS zones	39	55	84	186	400	...
% GoG budget spent on health	9.3	9.1	8.2	13.3	15	18
%GOG recurrent budget spent on health	11.5	11.2	11.9	14.5	15	14
% GOG recurrent health on non-salary items (2+3)	5.4	6.6	...	7.0
Proportion of non-wage recurrent budget spent at district level	40.9	35.4	37.9	36	43	40

Sector-wide indicators	Achievements				Targets	Achievements
	2002	2003	2004	2005	2006	2006
% Donor funds Earmarked	32.8	39.5	26.3	40	40	61
% IGF from pre-payment and community insurance schemes					20	
% Recurrent budget from GOG and health fund allocated to private sector, CSOs, NGOs and other MDAs				3.1	2	
% Recurrent budget spent on exemptions				8	8	2.2
Per capita spending on health (\$US)	8.1	10.5	13.5	19	...	25.4

(source: MOH)

3 HEALTHY LIFESTYLES

3.1 Aims of POW 2002-2006/POW 2006

The routine health information system shows that hypertension, diabetes, cardiovascular incidents, and other NCDs are on the rise, not only in urban zones but also – to a lesser extent - in rural areas. POW-2004 referred to a “silent NCD epidemic” and called for “an urgent and effective public health response to NCD in which health promotion is emphasized.” POW-2005 echoed the need “to develop policies and programmes for addressing the non communicable diseases that are slowly becoming major health problems and yet to date we do not have a credible control programme.” Priority activities were to “strengthen the health promotion unit to lead the campaign for healthy living,” “develop a framework strategy for promoting health in schools, work places and communities” and “mount IEC campaigns on healthy living including healthy eating and exercise.” POW 2006 emphasized that “health promotion will focus on strategies to enable individuals and households to make the right choices about healthy lifestyles.” The Regenerative Health and Nutrition Training Programme (RHNP) is now a central component of the MOH’s current prevention-based strategy. The programme was formulated in December 2006 and is currently hosted in PPME/MOH. The vision of the programme is to create “agents of change” – both within and outwith the health sector, and operating in their own spheres of influence and across a broad societal spectrum – who would become advocates and catalysts for behavioral change. The immediate (1st phase/2007-8) objectives are to reach 24 targeted districts with the RHNP message via sensitisation of the spectrum of community stakeholders: local leadership (political, religious and traditional), media, schools (educators and selected students), matrons and caterers, local agency personnel (e.g. EPA and Agric officers), midwives, TBAs, etc. A series of 4 smaller-scale follow up programmes to each district is scheduled to interface with “community health committees” left in place, comprised of inter-sectoral local officials. Longer range (2nd phase/2008-9) objectives are to establish a training facility where health personnel would receive in-depth training and reinforcement.

3.2 Recent achievements

RHNP activities have been well received by participants and are proceeding according to schedule. At this point of infancy it is obviously not possible to expect any measurable outcomes, nor, given the nature of such behavioural change programmes, would they be expected for some time to come. The past year has seen commendable effort at addressing the recommendations of previous POW reviews. An aggressive initial media campaign aimed to saturate the general public with the RHNP message. The sector minister had a visible presence in articulating the elements of the programme as well as

attending rollouts in each of the targeted districts, while actively lobbying for inter-sectoral collaboration and cooperation. At the policy level, MOH has embarked upon a strategy which communicates that primary responsibility for health begins at the individual, family and community level, from the behavioral health perspective. Many would say that such a focus is actually not “new” at all. However, critical elements are present which were lacking earlier: 1) an increasing database reflecting the apparent “double disease burden” impact of NCDs upon Ghana, 2) an increasing base of knowledge for both the risk factors and effective prevention (behavioral change) strategies for NCDs, and, 3) the political sensitivity and will to drive the health sector in a new direction.

3.3 Constraints and challenges

RHNP can identify and capitalize upon traditional community-based structures and organisations which can be mobilized for health promotion efforts. These include churches, schools, “keep fit” clubs, even funeral societies and “prayer camps,” and perhaps most importantly, the traditional ethnic chieftaincies. Chieftaincies exercise a great deal of local administrative power and possess, in varying degrees, an important capacity for health information dissemination, compelling influence and community mobilisation. These represent opportunities which would lend themselves to a sustained and effective community support for behavioral change, upon which RHNP depends heavily for success. The very nature of the RHNP message – of primary (and ultimate) responsibility for health being upon the individual and community – lends itself to the sense of community ownership of the programme. However, community leaders will need to be tasked (as part of carefully coordinated RHNP follow-up activities) with organisational planning to maintain the spirit of this idea. Contrasting problems of perception must also be addressed: a public who views dispensing pills as the primary role of the sector worker and sector workers who don’t yet see prevention as their job. Staff at the health centres should have minimal skills to give basic dietary and lifestyle counseling to all NCD patients.

3.4 Recommendations

- Review and revise *medical curricula* to include training on lifestyle-issues and to sensitize students prior to their entry into the sector. Refresher courses for health staff should include RHNP training.
- Develop a series of multi-media, multi-lingual programmes for public health outreach. This would include a series of dramatisations for television and radio. The current skits that comprise part of the RHNP training sessions are a basis for this. These and other tools would help to saturate the society with the RHNP message.
- GoG is advised to roll out the – intersectoral - programme in a coordinated way. Such a rollout could take place step-by-step under monitored conditions, with the objective of producing a “demonstration area” and fine-tuning the elements of the programme.

The next chapter will focus on achievements and challenges with regard to specific programmes, in particular those focusing on MDGs 4 and 5 (child health; maternal health). In these areas, much remains to be done if the MDG targets for 2015 will be met. The review team feels that the new focus on regenerative health and on non-communicable diseases should not overshadow or diminish ongoing efforts needed to reach the MDGs 4 and 5. More work is needed to precisely define operational prevention strategies (e.g. can the CHPS approach be used to scale-up the regenerative health and nutrition programme in rural areas? How to effectively cover urban areas? Et cetera), and to assess the level of resources needed to implement and sustain effective programmes.

4 CHILD AND REPRODUCTIVE HEALTH AND NUTRITION SERVICES: SCALING UP

4.1 Introduction

The chapter will focus on progress made, and on constraints, in priority health interventions in reproductive and child health (RCH) during POW 2002-2006, including its last year. Performance in RCH is analysed against targets set for the subset of sector-wide indicators related to child and maternal health. (To assess performance, the team also looked at other indicators, beyond the set of sector-wide indicators). The chapter will provide an indepth review of programmes and interventions directly linked with attaining the MDG mortality reduction goals for maternal and child health. Finally, it will examine the feasibility of reaching MDGs, and make recommendations about scaling up concrete actions and proven interventions to assure advancement toward these goals during the next 5-years POW. The MDG 4&5 lens is also applied to other chapters, in particular the next chapter on systems development. There is a functional linkage between these two chapters, since strong system support is essential for the expansion and scaling up of the basic RCH package of effective interventions.

For the record, the team notes that certain key areas were only covered in a cursory manner, or not at all. Specifically, the maternal health section focuses on obstetrical care and reducing the maternal mortality ratio, it does not address important programme areas like family planning, adolescent health, STIs, reproductive tract cancers or maternal infections (HIV, malaria). Given the emphasis on nutrition in last year's review, this year the team focused on infant and young child nutrition in the context of the sector wide indicator. Although Newborn Health was included, it would benefit from a more intensive review than was possible in our timeframe. The review concentrated on infants and children under 5 years; thus, school health was not included.

4.2 MDG-4 Analysis: Child Health

4.2.1 Sector-wide indicators in Child Health. Targets and Trends

For child health, the set of sector-wide indicators for POW 2002-2006 includes health outcome indicators (IMR, under-fives MR, proportion of under-fives malnourished) and selected service output indicators (EPI Pent3 coverage; EPI measles coverage; AFP non-polio rate; coverage of post-natal care, under-fives malaria case fatality rate). In this section, 4.2, the values of these indicators are discussed. The indicator on nutrition will be discussed in section 4.4. Likewise, given the close relationship between maternal and child health, especially neonatal health, the performance indicators for Reproductive Health Services have relevance for child health, but are reported in section 4.3.

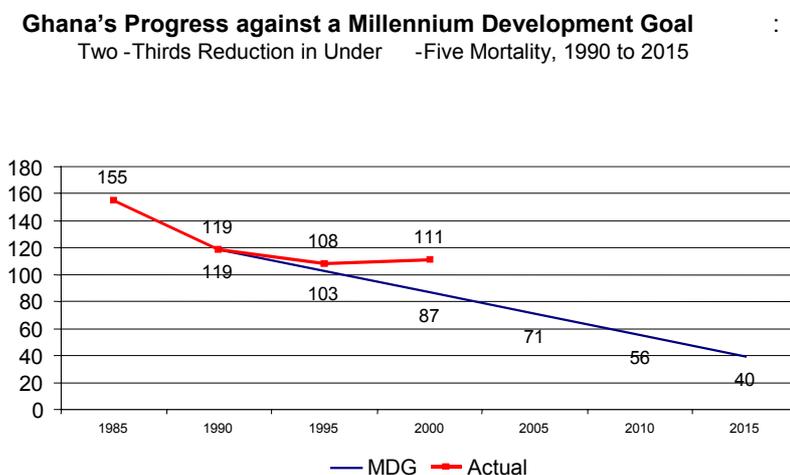
Improving Child Health Status

From table-1, presented in chapter 2, it appears that the values of both IMR and U5MR are still above the targets set for 2006. It is, however, important to note that these indicators reflect mortality during the period before or around the year 2002, Therefore, these indicators must be cautiously interpreted, when assessing performance during POW 2002-2006. The most recent sources for measuring these important indicators were the DHS-2003 and the MICS-2006. In general, over the years, the following trends could be observed:

- post-neonatal child mortality showed a continual decline over the last 15 years ;
- in contrast, neonatal mortality was relatively stagnant during this period;
- IMRs and underfive MRs, as measured between 1998 and 2003, have plateaued at high levels (IMR: 71/1000; U5MR: 111), underpinning the importance of effective coverage of child health programmes;
- The MICS-2006 shows important inter-regional variations (e.g. UWR >> WR), rural-urban disparities (mortalities being higher in the rural areas), female survival advantages (89/1000 against 131/1000), and correlations between mortality and levels of mother's education.

The following figure indicates that, if 2015 targets for MDG4 are to be achieved, scaling-up of effective interventions is mandatory.

Figure 1. U5MR trends and MDG4 target 2015.



5

Appendix 5 provides an indepth analysis of child mortality data derived from the various surveys undertaken in Ghana.

Improving Child Health Services – the sector-wide indicators

Service output indicators, measured by routine information systems, are specific to the year of operation, and are most relevant to assess the *annual* performance of the sector and trends during the 5-years POW. The selected sector-wide indicators with regard to child health are mostly focused on immunisation. Given the impact of neonatal survival on overall child survival, this overview of sector-wide indicators also includes the postnatal care indicator. During the last year, none of the targets set for these indicators were met, with the possible exception of the AFP non polio rate, related to polio eradication progress. Nevertheless, the review team feels that the overall performance of these indicators is quite good. In fact, over the course of the last 5 years, the trend in performance across the *EPI indicators* has consistently been high; and although there was a dip in the middle years, performance across antigens in the last two years has been particularly strong:

- EPI – pentavalent coverage. Although the target of 85% was not met, a respectable coverage of 78% was achieved; MICS 2006 found 83.5% coverage and EPI annual performance shows a similar coverage for years 2005 and 2006 (respectively 85% and 84% coverage respectively). However, there are significant regional variations seen in both the MICS data and programme data. There are also wide variations within regions. Particularly of note, is the finding that since 2003, no cases of wild polio have been reported; presumably attributed to the improved routine vaccination activities and NIDs.
- EPI - measles coverage. Although the 2006 target of 90% was not met, a slight increase over 2005 performance was made, achieving national measles coverage of 85%. Over the course of POWII, measles coverage has consistently reached 80% or above except in 2004. The 2006 MICS found 85.4% measles coverage nationally, with regional variations. It should be noted that since 2003 no cases of

death from measles have been reported. According to routine data, EPI coverage in GAR is significantly lower than other regions. Although the review team did find important public health problems in several urban settings (such as high stunting rates), it appears that the low EPI coverage in GAR may actually be due to under-reporting. Recent (2005) EPI coverage surveys conducted in each GAR district showed systematic differences between actual and reported coverage (GAR measles: 87%, cluster survey; 64%, routinely reported).

Given the influence of neonatal deaths in both IMR and U5MR, the *post-natal care coverage* (PNC) has particular value as an indicator of sectorwide child health performance. In 2006, coverage was nearly 56%, increasing about 3% from 2005, but still not achieving the target of 65% coverage. Over the course of POWII, this indicator has not varied greatly (53 - 56%). The 2003 DHS found that 1 in 4 mothers delivering outside of facilities received PNC within 2 days of delivery, 1 in 10 within 3-6 days after delivery, and 1 in 8, 7-41 days post delivery. Most significantly, more than half of the women who had non-institutional births did not receive any post natal care.

The under-fives malaria case fatality rate (see also section 4.5.1.) has decreased to 2.1% in 2006. However, variations are seen across regions, with CFRs over 3 in 3 out of the 5 regions reporting in 2002. Steady progress appears to have been made in decreasing the rates in Upper West and Brong Ahafo Regions, while Northern and Upper East Regions showed increased rates in 2006, after having made some progress in previous years.

Appendix 5 includes a more detailed description of progress in these indicators, as well as proposing other indicators for consideration, which could better reflect sector progress and progress toward MDG 4.

4.2.2 Achievements and constraints

Burden of Disease and evidence based interventions

In Ghana, malaria is responsible for 56% of the burden of disease among under-ones, followed by ARI (11%), diarrheal diseases (8%), skin diseases (4%), anemia (3%) and pneumonia (2%). In one to four years old children, malaria was again first (57%), followed by the same conditions, except that intestinal worms replaced pneumonia, with only slight variations in burden percentiles (MOH 2002, MOH 2004). Malaria has been the number one cause of death in children under 5 years throughout this POW 2002-2006. Again in 2006, it was responsible for almost 30% of under-five deaths in Ghana and 53% of all pediatric admissions (annual performance review 2006, Malaria Control Programme). After malaria, the main causes of <5 hospital admissions in 2006 were anaemia, diarrhoea, pneumonia and malnutrition. Malaria, ARI, and diarrhoea were the top causes of <5 OPD visits, followed by skin diseases, anaemia and pneumonia..

Twenty three technical interventions, both preventive and curative have been analyzed and ranked according to the evidence of their effectiveness and ability to avert childhood deaths from the most common diseases/conditions noted above. Universal coverage (99%) of these 23 interventions would reduce 2/3 of all <5 child deaths in the world. A core set of 6 interventions would reduce over half of all child deaths in settings with high

child mortality like Ghana. The most effective *preventive* intervention is breastfeeding with the ability to avert 13% of under-five deaths, followed by ITNs (7%) and complementary feeding (6%). Oral rehydration therapy (ORT) is the most effective curative intervention; full coverage would avert 15% of the under-five deaths. Other effective curative interventions include: antibiotics for sepsis (6%), antibiotics for pneumonia (6%) and antimalarial (5%). (Jones, G et al ,2003; Darmstadt, G ,2005). The MOH has adopted two key strategies to deliver a package of these evidence-based, effective interventions: IMCI and Essential Nutrition Actions.

More recently, the MOH and partners have also adopted a new strategy, called High Impact Rapid Delivery (HIRD) which focuses specifically on rapid delivery of an expanded package of MCH proven interventions, emphasizing the role of community-based delivery through community organisations and volunteers. The HIRD strategy mobilizes diverse community members and agencies to deliver these critical MCH interventions, significantly expanding access, and aims at achieving high district coverage in a short time span. In 2006, the overall HIRD strategy was embraced by providers and partners alike. Regional Planning workshops were completed in all 4 regions from Dec 2005 to Feb 2006. District specific plans have now been developed and shared with partners, and expanded implementation is planned for 2007.

Other significant child health activities supported by the MOH during the last year include: a child health promotion week in May 2006, and, a nationwide mass measles/polio/VAC/ITN campaign in November 2006.

Appendix 5 includes more detailed information on key interventions included within these strategies and estimated deaths averted if taken to scale. In addition to coverage, the quality of delivery must be assured for the intervention to be effective and impact mortality. Performance indicators should thus reflect both dimensions, coverage and quality. In the following section, the implementation of the POW-2006, as well as the system's ability to deliver strategic evidence-based interventions through priority programmes at district, subdistrict and community levels are assessed.

Situational Analysis

One of the challenges in reviewing Child Health across the sector is that the various evidence-based interventions are delivered through diverse programmes and channels (appendix 5). Currently, there is no overarching, updated Child Health Policy and Strategy that takes into account the diverse implementing programmes involved with the delivery of proven newborn and child health interventions. However, there is a growing consensus to support a prioritised package of HIRD.

As described earlier, targets were not met in 2006 for any of the Child Health indicators except in the area of malnutrition (which is reported separately in this chapter). In fact, although progress in child health seems to have stalled throughout the POW 2002-2006 tenure (at least as indicated by the CH performance indicators), it is notable that performance has not worsened: Penta (3) coverage over 75% has been maintained since 2002; <5 malaria mortality rate has continued to decline and PNC coverage has ranged between 53 and 55%. Accepting that decreased flexible funding (see chapter 7 on health financing) may have adversely affected performance in 2006, the lack of decline in key

CH indicators is quite important. Furthermore, unmet targets have been a regular finding in most of the annual reviews during POW 2002-2006. This may indicate a need for better, more realistic planning for child health, including better use of existing data, but should not form the basis of an indictment for failure to perform. Furthermore, a closer examination of performance according to programme indicators and actual delivery of these critical interventions finds that during the last year, some gains have been made in particular programmes, districts or regions. More discussion is included in Appendix 5.

The team was not able to do service statistics comparisons from facilities as comparable figures for < 5yos or pediatrics could not be obtained.

Two largely vertical programmes which deliver child health interventions – EPI and Malaria Control - performed well and have impact on specific morbidity and mortality as previously noted: since September 2003, there has not been any reported case of wild polio virus, nor has there been any reported death from measles. Measles cases have dropped from 34,671 in 1994 to 434 in 2005. The Malaria Control Programme (see also malaria section below) has made important gains in ITN distribution and rapid treatment of fever in under-5's.

During 2006, child health gains were made through two new strategies. HIRD and community-based growth promotion. First, in three northern regions (UWR, NR, UER) and Central Region, the previously described HIRD strategy was made operational. In 2007, the MOH aims to rapidly scale-up this strategy by expanding to the remaining Regions in the country. Some of the key challenges appear to be:

- involvement of district hospitals;
- inclusion of all DMAs at the district level;
- avoidance of 'projectization' of HIRD;
- incorporation of HIRD in district plans and budgets; and,
- enhanced monitoring of activities and results (HMIS).

In addition, community-based growth promotion (CBGP) was successfully piloted in Volta Region. Plans to expand CBGP to other regions are now underway. (see Appendix 5 for more details)

During the first year of POW 2002-2006, the annual review team revealed considerable gaps in the *quality of care* for sick children. A more recent assessment of hospital care for sick children also found significant quality gaps (GHS, 2005; MOH 2002). However, recent quality monitoring around ACT treatment has documented some rapid performance improvements, which show that quality improvement is feasible.

Other areas of progress with relevance to child health include the preparation of the IMCI curriculum for preservice training of diverse cadres of nurses and CHPs. The curriculum has been submitted for approval by the Nursing and Midwifery Council; training will hopefully begin in the fall of 2007 in 44 health training institutes. The effect of this important activity will only be felt in several years, and is obviously not captured by the current performance indicators. In addition, IMCI inservice training also continues, and has received additional support from bilateral partners.

As noted previously, multiple strategies are being used to deliver various child survival interventions. In addition to a Child Survival Implementation Framework, a simple “scorecard tally” of coverage (and the gap to reach full coverage) forms the useful function of focusing programme efforts on tracking and addressing coverage per key intervention. Using the latest MICS or DHS data, the following table rapidly conveys:

- Best coverage, over 50%, is occurring for interventions delivered through “vertical” programmes: EPI, Malaria Control. Vaccinations and VAC are reaching 75% coverage among infants and children;
- Exclusive breastfeeding and complementary feeding are delivered through multiple programme channels, but also are reaching more than half of infants/children;
- Focusing on increasing coverage of a core of the most effective interventions could reduce avoidable U5 deaths;
- Proxy estimations are being used for several core interventions, especially for newborns, which likely underestimate actual delivery of the interventions;
- An important new intervention with both preventive and curative effects has yet to be introduced (zinc).

Table 2. Current Coverage of Core Evidence-based CS Interventions

Intervention	Current Coverage MICS 06 DHS 03*
Preventive Interventions	
Exclusive Breast feeding <6mo	54%
Use of ITNs last night	22%
Complementary Feeding	58%
Zinc	not available
Hib vaccine	84%
Vitamin A	78%
Measles vaccine	85%
Newborn temperature maintenance (Using proxy of delivered by skilled personnel)	NA 49%
IPT (Using proxy of any antimalarial during last pregnancy)	<1% 58%
Curative Interventions	
ORT (any form)	63 37%
Antibiotics for NB sepsis (Using proxy of delivered in facility)	NA 49%
Antibiotics for pneumonia	33% (55% sought care)
Antimalarials	61% (48% within 24 hrs)
Zinc	0 not yet available
Antibiotic for dysentery (Using proxy for taken to health provider, excluding pharm/chemist, traditional)	NA 26%

As expanded delivery of HIRD/C-IMCI and community based growth promotion proceed, it may be better to focus on delivering a smaller set of key interventions more widely. In addition, more attention will be needed to identify and measure coverage of the set of interventions delivered as “essential newborn care“.

4.2.3 Strategies and Recommendations to Meet MDG 4

A review of past recommendations and Aide Memoires makes clear that some of the findings and recommendations for 2006 have been noted in previous annual reviews. In particular, prominently mentioned in last year’s review and again this year are the need to focus on neonatal interventions in order to attain MDG4, as well as recommendations to improve nutritional status “by balancing nutrition promotion and disease control in service delivery, targeting children at highest risk for under-nutrition, scaling up evidence-based low cost nutritional interventions, and reorienting nutrition programming towards community-based delivery” [Sector Review 05, p42] In terms of neonatal health, some advances were made - a new Reproductive Policy was developed, and prominently focuses on newborn care. Plans were recently approved to expand the successful nutrition CBGP model, and ENC training within the Imagine Ghana Free of Malnutrition was also carried out.

As far back as 2002, recommendations were made to more actively include the private sector in health planning, and to develop an urban polity to better reach the poor. The need for evidence-based protocols and targeting services for the poor were mentioned in 2003 , and the importance of better integration between public health and clinical care was stressed in 2004. Also in 2004, the need to expand coverage of IMCI was noted, along with the recommendation for more attention to nutrition in both facility care and outreach Although some activities addressing these recommendations have been undertaken through the years, nonetheless, the recommendations continue to have value and will appear again below.

The review team proposes the following main recommendations, in the context of achieving MDG4:

- *Revise Child Health Policy and develop an Operational Guide for Scaling up.*

The Child Health Policy was written in 1999 and has not been updated. It thus preceded the focus on MDGs, and lacks new technical interventions in child health like zinc and low osmolarity ORS, new vaccinations, and birth spacing. Updates in IMCI to include newborn care and HIV are needed. Furthermore, it does not address new developments like CHPS. The Policy was developed before the analysis of burden of disease and evidence-based interventions or the importance of full coverage for mortality impact were delineated, nor does it deal with the rise of globally funded vertical programmes. The Policy does not include overarching guidance for delivering proven child health interventions through diverse programmes. A clear implementation framework with expected coverage targets and performance indicators grounded in the core interventions is needed. The Policy should address the HIRD strategy aimed at delivering proven cost-effective child health interventions at all levels, including the community level. It will need to provide guidance about working with local private practitioners and chemists or drug sellers, as well as traditional healers.

- *Decide on the content of a more focused, core package of priority interventions for community-based delivery through HIRD, and rapidly scale-up its implementation by various actors.*

The review team recommends that a core package of priority interventions for community-based delivery (based on epidemiology/burden of disease, effectiveness in averting death and feasibility of delivery through community-based organisations) be nationally agreed upon. The HIRD and other existing packages of care should be critically reviewed, and a core set of more focused interventions given priority. Studies have shown that adding more interventions to a package may actually limit the number of interventions delivered to the poor (Victoria, C et al, 2003)³. Key is reaching coverage. In line with the overall HIRD strategy, priority child health interventions aimed at the main killers (pneumonia, diarrhoea, malaria and malnutrition) cannot be limited to facility based delivery, given its low effective coverage (see also next chapter). Life-saving interventions like ORS and antibiotics can and should be delivered at community level, albeit with careful supportive supervision and continuous monitoring. The current scope of practice in Ghana only allows certain cadres of nurses to prescribe medicines like antibiotics; private practitioners and drug sellers might also play an important role (to be further analysed) in reaching children with effective interventions.

- *Introduce community case management/treatment of malaria and pneumonia.*

This could be done in one or two trial districts per region for one year, followed by an evaluation and further roll-out. Perhaps, some organisations and volunteers will only be able to provide the preventive interventions, while others may concentrate on the package of curative interventions. At community level, health staff (health centres; CMOs / CHPS) must make sure that every eligible household is covered by preventive and curative care. The key differences from this approach and prior c-IMCI is the decision to focus on a core set of fewer interventions, including key *treatment* interventions, and to assure *systematic coverage* of eligible households at sub-district level. Community case management for fever (malaria programme) can also be used as a platform to introduce pneumonia treatment, capitalizing on the strength of the Malaria Programme, and synergistically and rapidly scaling up community-based treatment.

- *Strengthen Case Management of Childhood Conditions in Facilities*

IMCI is a well tested clinical algorithm that addresses the common conditions that underlie childhood morbidity and mortality. MOH has adopted IMCI as the norm for caring for sick children. However, due to the length and expense of training it has not been rolled out. The Division of Institutional Care might recommend changing IMCI from adhoc to structured training, so that districts and regions assume accountability for their staff practicing according to this norm. MOH with partners should develop an alternative and shorter training approach. Also important is the organized, systematic and timely follow up and mentoring after formal coursework. Attention should be given to onsite and peer quality assurance activities, focusing on IMCI, so that those trained actually apply their learning. The QA monitoring indicators for IMCI and child health in district hospitals can be adapted and introduced at health centers.

- *Target Core Interventions to Urban Poor and Hard to Reach Children/Communities*

Community-based delivery must focus on reaching the unreached; this means identifying and mapping the locations of communities with limited or no access to the health centre or outreach points. Every subdistrict will have to identify the poor, underserved and at risk communities or households with children under 5yrs and develop ongoing action plans, with clear roles for community-based volunteers and partner organisations, to reach them. To improve child health within sub-districts, it is important to further expand coverage of CHPS zones. The 2005 External Review noted that only 186 CHPS zones were functional in 2005, with a CHO in place, registering households and providing community-based services to families and children. The team was not able to review the achievement for 2006; in any case, the roll-out of CHPS is slower than expected. By allocating more resources to the subdistrict-level (see financial chapter), scaling-up CHPS should be more feasible.

- *Focus on Delivering Essential Newborn Care (ENC) Interventions in Health Centres and Outreach*

Much lip-service has been made to focusing on the newborn, but not much concrete action. As far back as 1999, the Child Health Policy documents noted the need to develop a strategy to improve neonatal care. The newborn is the nexus between maternal care and child health; it must be attended to in all policies, strategies and guidelines in both RH and CH. Thus, neonatal or newborn care should be included in SM and IMCI strategies. Since the 1999 policy was developed, new evidence has been obtained in terms of scientifically proven newborn interventions (Darmstadt, G, 2005). Based on this and feasibility of implementation within Ghana's delivery system, the Essential Newborn Care (ENC) interventions should be agreed upon. Updates should be provided to health service workers at health centers; interventions for community-based delivery should be consolidated with the package of Essential Child Survival interventions. Postnatal care interventions have been defined in the new National RH Services Policy and Standards, but operational guidelines are needed.

- *Expand Community-based Growth Promotion (CBGP) and Essential Nutrition Actions (ENA), using multiple delivery channels and common BCC strategies, nutritional messages*

Lessons learned from the CBGP pilot can be used to expand to new districts and regions; Essential Nutrition Actions (ENA) should be incorporated within the priority Child Survival intervention package to be delivered at community level through diverse organisations.

4.3 MDG-5 Analysis in the context of the POW

4.3.1 Sector-wide indicators in Maternal Health. Targets and Trends

The Millennium Development Goal (MDG) 5 seeks to improve maternal health and reduce by three quarters, between 1990 and 2015, the maternal mortality ratio (MMR, number of maternal deaths per 100,000 live births⁴). The proportion of births attended by skilled health personnel is the second indicator for MDG 5. The assessment provided here focuses on maternal survival and also provides a brief review of the related preventive strategy of family planning.

Maternal health status in the sector wide indicators is measured at national level by the *population based maternal mortality ratio* (proportion of maternal deaths per 100 000 live births). This indicator is congruent to the needs for demonstrating Ghana's progress in saving women's lives. There is considerable information available on population based levels of maternal mortality in Ghana. For maternal mortality, the sector wide indicators rely on data available from one single population based survey, the 1992 National Maternal Mortality Survey, which provides information on the level of maternal mortality in the 10 years preceding the study, relevant to a period around 1982. Several other more recent studies of good quality are available which provide data on maternal mortality in Ghana (see appendix 5) but these are not national estimates. The three modelled estimates provided in the appendix all use different methodologies and cannot give any indication of trends over time. Most of these studies suggest that maternal mortality is higher than official national figures, and that much remains to be done to achieve MDG targets by 2015. Given this situation, Ghana currently cannot record any trends toward achieving MDG 5 and an assessment of performance on the basis of health outcome is not (yet) possible.

In districts and regions, *institutional maternal mortality* is routinely used in performance reports. This is to be commended as important information can be provided through the use of these indicators. Interpretation of this indicator is however complex⁵.

The importance of showing change in maternal mortality cannot be overemphasised, to demonstrate progress toward MDG5, and to mobilise continuing and additional commitment and resources for maternity care. Given the inherent difficulties and costs involved in measuring maternal mortality, the review team recommends to obtain a national⁶ maternal mortality estimate every 5 years. The opportunities to do this without significant new investment are imminent, as follows:

- Two surveys are already planned for 2007/8 – a special maternal morbidity and abortion survey, and a demographic and health survey. The previous four DHS surveys have not included maternal mortality estimates, which have been lost opportunities, as it is a relatively inexpensive addition to the survey (Stanton, Abderrahim and Hill 1997).
- The planned census for 2010 where a small number of questions can be added in order to obtain a maternal mortality estimate.

The crucial need in limiting costs by using the above opportunities lies within the careful co-ordination and advance planning of all the studies, especially in terms of the methods to obtain maternal mortality estimates⁷.

In between the 5 year surveys, institutional maternal mortality ratios to monitor trends can be used; however, given the difficulties in interpretation of this indicator, it will be necessary to link these figures with qualitative data from maternal audits to explain the direction of the trends and to identify bottlenecks using maternal death audits and confidential enquiries into maternal deaths (WHO 2004, Lewis 2004).

Stillbirth and neonatal death rates are being reported within the routine health information system, but not included as sector wide indicators. These indicators could be included as priority indicators in sector wide analyses, as the data is already available and they provide information on quality of care for both mother and child⁸.

The table below provides a summary of the trends in key service output and sector-wide indicators relevant to maternal mortality reduction. Where possible, figures are provided from various sources to provide a picture of the degree of accuracy of the sector wide indicators. Demographic and health survey data (DHS) are provided from the 2003 report (GSS et al 2004) as being likely to be of the highest accuracy.

Table 3. Trends in maternity service output indicators

Indicator	Source	2002	2003	2004	2005	2006
% ANC	MOH	93.7	91.2	89.2	88.7	88.4
	RCH report 2005	93.3	91.2	89.2	88.7	88.4
	DHS 2003	n/a	91.9	n/a	n/a	n/a
% PNC	MOH	53.6	55.0	53.3	55.0	55.9
	RCH report 2005	53.4	55.7	53.3	55	55.9
	DHS 2003	n/a	46.8%	n/a	n/a	n/a
% skilled deliveries	MOH	32.0	55.0	53.4	54.1	n/a
	RCH report 2005	n/a	n/a	37.8	40.3	44.5
	DHS 2003	n/a	47	n/a	n/a	n/a
% maternal deaths audited	MOH	84.0	85.0	55.9	89.6	52.7
	RCH report 2005	n/a	n/a	55.9	76.6	n/a
	DHS 2003	n/a	n/a	n/a	n/a	n/a

(Source: MOH Annual Performance Review of Technical Programmes, 19/20th March 2007)

Recommendations for Maternal Sector-wide Indicators for 2007-2011 can be found in Appendix 5.

The proportion of family planning acceptors (26.8 %) is the current sector-wide indicator on FP services. Although the contraceptive prevalence rate and the unmet need for family planning are more widely accepted as key family planning performance indicators, these cannot be collected in routine information systems. However, data is available for Ghana from DHS surveys. The performance of family planning shows a slow upward trend in both sector and DHS indicators. Family planning acceptors increased from 21% to 26.8%. While knowledge levels of contraception are high in Ghana at 98%, the contraceptive prevalence rate (25%) is low but increasing from 13% in 1988 (GSS et al 2004) and unmet need is high (34%) (Quansah Asare 2007). As in the maternal service provision indicators, disparities within the population are large (see appendix 5).

4.3.2 Situational Analysis: Maternal Health

Situation analysis of maternity-related services

The data provided above suggests the following situation:

- Antenatal coverage is high and data quality in the sector wide indicators is acceptable. The slight downward trend is possibly explained by improvements in monitoring, but should be watched and compared with the next DHS 2008 survey.
- The post natal care indicator is a proxy for accessibility of services for both mother and child in the puerperium. Levels of post natal care are not very high

and no clearly discernable pattern of increase can be noted. The DHS data suggests that the routine systems overestimate levels of postnatal care.

- The (still low) percentage of deliveries with skilled attendants is showing a slight increase. However, the quality of the data being collected within the routine health information system requires improvement as there is a discrepancy between the DHS data and the routine data. Investigation of this indicator was made in some depth as deliveries with skilled health personnel is one of the two MDG indicators. The change from use of the indicator “supervised deliveries” (which included health professionals and traditional birth attendants) to skilled attendants (health professionals only) has probably contributed to some confusion in calculating this indicator⁹.
- Patterns in the percentage of maternal deaths audited are erratic. Knowledge that there is a requirement to report all facility maternal deaths appears widespread. The quality of the audits can be indirectly ascertained by the quality of analyses provided in the narratives of reports. Audits are used mainly to identify the causes of maternal deaths, which are already well known. Although identifying causes of death is a good practice, maternal death audits can be used to provide much more information, such as to explain trends in the institutional maternal mortality ratio, and thus to identify and explain what is going wrong, and where, in the health system.

Overall, the performance at service output level shows small, but encouraging trends. Data quality is acceptable for some, but not all, indicators. District and regional variations are well reported in the RCH annual reports, which identify the less well performing regions clearly. Apart from these regional differences, attention should be drawn to the data available from DHS studies in Ghana (see appendix 5) which show large disparities when data is disaggregated by wealth, rural urban residence and education, signifying that any strategy to improve maternal health must address these social issues.

The measurement and performance of maternal mortality reduction services can be summarised as follows:

- Trends over time on maternal health outcomes are not available for Ghana;
- Institutional maternal mortality ratios are available, but trends need careful interpretation; and,
- Deliveries with health personnel are rising slowly. 31% of deliveries are still with TBAs and 53.4% of deliveries are taking place at home (GSS et al 2004).

Fee exemption for delivery care has had an effect on utilisation of health facilities, and therefore skilled health personnel (Armar-Klemesu et al 2006). Health insurance would be expected to have a similar effect, though this has not yet been studied.

Clinical quality in health facilities

Clinical quality of care in health facilities could be improved. Health centres are not functioning as they should be to provide basic intrapartum care such as effective treatment of obstetric complications, first aid procedures for stabilising women before transportation, active management of the third stage, newborn resuscitation, etc. Hospitals are conducting many normal and complicated deliveries, and their resources are being stretched.

- Several studies on quality of care in Ghana show deficiencies in quality of care such as in the use of partographs, monitoring of post partum vital signs, resuscitation procedures etc (Hussein et al 2004, Deganus & Ansong-Tornui

2007, Ansong-Tornui 2007). These studies looked at both health centre and hospital level care.

- The availability of essential equipment for complications/resuscitation is not optimal. 83% of all health facilities in country provided delivery care services, yet only 16 % had all items needed to support quality delivery services (GSS et al 2003). None of the health centers surveyed had all the items for normal delivery and only 37% had the needed items to support quality delivery care in terms of availability of partograph, 24 hour service provider and protocols. Regional visits during this review revealed that health personnel were consistent in reporting that equipment needs were one of the most pressing, for example, Ambu bags (including newborn size), equipment for abortion care, vacuum extractors and blood transfusions were not available, and staff improvises to carry out key clinical interventions.
- 96% of hospitals provide blood transfusion, but 29% of hospitals offer transfusion with no blood storage facilities, which might contribute to delays in readily obtaining large volumes of blood for crises situations in post partum haemorrhage especially (GSS et al 2003).
- While 85% of health centres in the country provide 24 hour delivery services (often by only one midwife), only 21% of health centres surveyed had emergency transport services available to transport maternity emergencies (GSS et al 2003). In the majority of cases the client and her family had to arrange their own transport when emergencies occurred.

Health centres are underutilised, due to poor perceived quality by women (acceptability of birthing positions; practices such as mobilisation and fluid intake during delivery; caring actions and attitudes of health staff; D’Ambruoso et al 2004) and barriers related to geographical, transportation and financial access (GSS et al 2004, Deganus & Ansong-Tornui 2007).

Table 4. DHS data showing trends in place of delivery

	Gov hospital	Gov HC	Private/other	Home
1993	24.4	4.7	12.7	57.4
1998	26.6	5.6	12.0	54.8
2003	36.3		9.4	53.4

CHPS role in maternal health services

The CHPS initiative is currently being put into place in Ghana. This important programme aims to enhance community based health care, complementary to health services delivered at the level of health centers. The review team noticed that there is debate about whether CHPS is being operationalised as an outreach service provision in the community, or as a downscaled health centre. In either of these forms, or as some hybrid of the two, there is a role for CHPS to provide maternity and maternity- related care in four key areas:

- extending antenatal services to those hardest to reach;
- reducing the prevalence of anaemia in pregnant women;
- promoting utilisation of health services; and,
- providing postpartum care, including family family/birth spacing and postnatal care for the newborn (especially for those delivered at home).

Although the primary care interventions listed above will have some effect on maternal mortality, it is important to have clarity on what is less feasible and effective within the CHPS initiative. Even if the community health officers (CHOs) involved in the CHPS programme are trained to supervise or conduct deliveries in the community, the review team feels that the likelihood of this intervention having an appreciable effect on maternal mortality reduction is small:

- The midwifery training for the CHOs will necessarily be limited as they are multipurpose health workers. The training is unlikely to prepare a CHO to a sufficient level of competency for delivery care;
- Even if a midwife travels to the CHPS compound it is unlikely that her intermittent presence will allow her to participate or supervise a majority of deliveries in the area;
- Even if a midwife is resident near or in a CHPS compound, the life-saving emergency interventions that can be provided on site will be limited. Although improved referral will help in cases of emergencies, in CHPS areas located very far from a hospital, the time required for referral is likely to be longer than the time for referral from a health centre to a hospital.
- Existing health facilities are not yet fully functional, so it is unlikely that an outreach CHPS clinic can be successfully upgraded to perform the necessary functions for effective intrapartum care except perhaps in the very long term.
- Finally, CHPS is designed to address the needs of the hardest to reach. Disparities are smaller for preventive services such as antenatal care and family planning (which can be provided by CHPS sites). However, for intrapartum and emergency care, inequities of access are highest, and CHPS is not designed to provide these forms of care, and so will not narrow the disparities for these essential services.

Traditional birth attendant (TBA) training and supervision continue to be part of safe motherhood activities being carried out at service level. TBAs are not a homogenous group – some provide only delivery services, others traditional healing, spiritual or religious needs, some are trained and others not. TBAs practice independently or can be linked to such organisations as prayer camps. Anecdotal information suggests that the use of prayer camps and spiritual healers to seek delivery care is widespread, despite the charging of payments in kind or cash, often of a value equivalent to health services. Prayer camps are seen to contribute to delays in referral for complications. Amongst health practitioners the review team spoke to at district, regional and national level, there is a perceived need to understand better how these TBAs function, and why they continue to attract women to seek maternity care with them.

Other areas related to maternal mortality reduction

A few other specific areas related to maternal mortality reduction should be noted:

- Data is not readily available on abortion and post abortion care services, despite the legal acceptance of abortion provision in Ghana for specified reasons. As the data is not available, it is not possible to assess performance in this area, although there is a possibility of a survey on abortion related care issues planned for 2007. The same situation is true of other reproductive health services such as treatment of sexually transmitted diseases and screening of gynaecological cancers.
- Vitamin A supplementation is part of the nutritional programme in Ghana, but is mainly targeting childhood mortality. The use of Vitamin A is however also believed to have an effect on maternal mortality reduction. A study is currently being completed in Kintampo to assess the effects of supplementation in Ghana.

When the results of this study are out, it will be important to use the findings to update policy in this area.

The overall analysis of the reproductive health sector, in particular the reduction of maternal mortality suggests that progress is being made but slowly. The available information suggests that improvements are likely to be due to the removal of financial barriers through fee exemption for delivery care (Armar-Klemesu et al 2006) and potentially, the national health insurance scheme. Although it is not possible to directly attribute reasons for the slow progress, inadequate capacity in terms of supplies, equipment and service protocols might be one root cause (Birungi 2006) leading to limited quality of services and affecting demand, while others include issues such as acceptability and accessibility of services, especially for the disadvantaged poor, rural and less educated. The current reproductive health policy (GHS 2003) is comprehensive and sound.

4.3.3 Strategies and Recommendations to Meet MDG 5

The situation analysis provides the basis upon which a focused approach to reducing maternal mortality in Ghana can be developed, and the “choices” referred to above made. The approach involves three actions:

- Measure trends in maternal mortality;
- Make the health centre the anchor institution for normal deliveries; and,
- Improve quality of care in hospitals.

The recommendations on how to measure trends in maternal mortality using existing opportunities to limit resource needs has already been described above.

Making the health centre the key institution for providing intrapartum care for normal deliveries is likely to involve medium to longer term investment. Operationalising a health centre intrapartum care strategy will utilise existing facilities and policies, building on them to address the social and behavioural aspects. Many women find health facilities unfriendly and of poor acceptability, and instead seek care with traditional, spiritual and religious providers. The concept of improved “woman-friendly” health services is not new (UNICEF 1999) and practical guides are available to operationalise the concept (UNICEF 1999, ICH 2001). During a round table discussion on maternal mortality reduction held as part of this review, it was suggested that the term “Jubilee” health centre be used to describe these women friendly sites – the term “Jubilee” denoting ideas of freedom and happiness, and related to the recent 50th anniversary celebrations of independence in Ghana¹⁰. It is acknowledged that this shift to actively increase utilisation of health centres is not an easy solution, or a quick fix. Nor is it necessarily risk free. The strength and capability of civil society organisations is not assured, although working through established civil society organisations (trade and faith based, reputable NGOs) might provide a greater chance of success. Changes in mindset and attitudes of health providers are not simple to effect. However, the other perspective is to push supply (the improved facilities) and demand will follow. Jubilee health centres will give direction and a common purpose to disparate groups of NGOs and community organisations. Doubts about the feasibility of establishing these Jubilee health centres can be alleviated by not scaling up immediately. By the very nature of these community mobilisation activities,

solutions for each locality may be different. A few DDHS were met in this review who had already made inroads into implementing this idea.

The recommendation to improve quality of care in hospitals is linked to the “Jubilee” health centre concept, in that hospitals will be made more efficient by moving normal deliveries out of hospitals towards the health centre, thus freeing up the hospital facilities and resources to concentrate on treatment of complications in the mother, resuscitation of the newborn and on more specialised areas such as provision of quality abortion and post abortion services, and other reproductive health needs. Equipment requires investment, and the focus should be on equipment needs for complications in abortion, delivery and care of the newborn. Blood transfusions are a crucial lifesaving intervention and immediate access to adequate supplies is required. This may mean that blood storage facilities be made available in all hospitals. Continuing maternal death audits will create the means through which clinical quality bottlenecks can be identified internally within each hospitals.

4.4 Nutrition Analysis in Context of MDG 4 and POW

4.4.1 Sector-wide indicators in Nutrition. Targets and Trends

One cannot address MDG 4 without taking into account nutritional status of newborns, infants and <5 children, since all major causes of infant and childhood deaths in developing countries are associated with malnutrition. The percentage of of U5 children who are malnourished is a critical sector-wide performance indicator addressing Improved Health Status.

National data on malnutrition derived from the Ghana Demographic and Health Surveys showed a reduction of underweight from 31% in 1988 to 25% in 1998. However, the most recent DHS data on the nutritional status of children 0-35 months of age in Ghana indicated that 22.1% were underweight, 29.9% stunted, and 7.1% wasted; in essence showing improvement in underweight and wasting, but an increase in stunting similar to levels in 1988. The children most at risk for malnutrition are those between 6 and 36 months of age (GDHS, 2003). Stunting increases sharply from 3% among children below 6 months of age to 37% among children 36-47 months. The level of wasting increases from 3% among children less than 6 months of age to 20% among children 12-23 months of age. Low weight for age (underweight) is thus more common among children more than 6 months old. As with other indicators, prevalence of these nutritional disorders varies by region, with the highest prevalence of underweight and stunting (38% and 40% respectively) found in the northern half of the country, compared to 12% and 11% in Greater Accra Region. In general 30% of children in rural areas and 14% in urban areas had stunted growth (GDHS). However, wide variations also exist within urban areas. While the GDHS indicates that the stunting level in Greater Accra is 11%, a nutrition survey carried out by the Greater Accra Region, Ghana Health Service Directorate indicated that stunting levels ranging from 43%-58% were observed in the poor submetropolitan districts in the region. Perhaps surprisingly, the highest stunting level, 58% was observed in one of the submetro areas of the Accra metropolis. These

findings indicate that even in urban areas, there are pockets of high risk, which may be masked in aggregate regional or even urban data (GHS/Nutritional Status Survey 2005).

The nutritional target of POW 2002-2006 was to reduce the % of underweight children under five years of age from 25% to less than 20%. At the time of the last DHS survey, 22% of the U5s were underweight, so at that time, achieving the 2006 target seemed realistic. Furthermore, the draft 2006 MICS report indicates apparent further progress, with 18% of the U5s classified as underweight. Hence, this sector-wide indicator on child health attained its target in 2006. The team notes that the most reliable data on underweight status is from the Demographic and Health Surveys, and even though the GHS reports on underweight from child welfare clinics, cautions that such institutional data be analyzed carefully, for it may be inadequate¹¹.

4.4.2 Situational Analysis

The sector wide indicator focuses on underweight, which has shown positive trends during the last 5 years. But there have been other gains as well. Most significantly, two of the most effective nutritional interventions to decrease mortality are exclusive breastfeeding and complementary feeding; these 2 interventions alone have the possibility of averting almost 20 % of <5 deaths. They are two of the only interventions delivered through general programmes to achieve more than 50% coverage. During the 2003 DHS, 53% of infants under 6 months of age were exclusively breastfed, a slight increase from the 1998 DHS. However, complementary feeding began early, with over one third of infants less than 2 months in age receiving supplementary foods or liquids other than water, thus exposing them to unnecessary risk of bacterial contamination. The 2006 MICS results support that EBF has remained stable (55%), without significant decline or increase, and that supplemental feeding begins early. There does not appear to be much regional variation in EBF, and differences based on maternal educational level, urban-rural residence or wealth seem to be lessening. The percentage of bottle feeding has declined markedly over the last years. Over the past years, many activities have been carried out to improve exclusive breastfeeding rates, including:

- Appointment of a breastfeeding coordinator to implement the baby friendly initiative;
- Implementation of the policy to ensure that all health facilities offering deliveries are designated as baby friendly resulting in 211 facilities currently Baby friendly. This represents about 14.5% of facilities with maternity services;
- Training of all categories of health workers on the ten steps to breast feeding;
- International actions to ban the sale of breastmilk substitutes;
- Advocacy and IEC: World Breastfeeding Week celebration; Development/dissemination of materials;
- Dissemination and monitoring of Breast Promotion Regulations.

However, programmes aimed at improving complementary feeding practices have not enjoyed the level of support from both national and international levels as has been given to breastfeeding especially exclusive breastfeeding.

Several nutritional strategies have been developed in Ghana including: Imagine Ghana Free of Malnutrition; the Integrated Strategy for the Control of Anemia; Essential Nutrition Actions and Community-based Growth Promotion and Monitoring. Essential Nutrition Actions includes infant and young child (1-4 yrs old) feeding and has been

incorporated within IMCI and C-IMCI, and thus included in the training of CHPS nurses. The Nutrition Unit has also provided training to non-health sector workers, such as agricultural extension workers. Furthermore, the MOH/GHS have expanded the cadre of service providers with nutrition capability, training technical officers in disease control *and* nutrition. Gains were made by implementing a number of the planned activities in POW-2006:

- Continuous advocacy for the ‘Imagine Ghana Free of Malnutrition’ strategy;
- Measures to promote nutritional surveillance (assessment of availability, and purchase of weighing scales);
- Mop-up exercise to iodise all non-iodized salt, so as to enforce the Food and Drugs Amendment Act 1996;
- Institutionalisation of VAS to children 6-59 months. Linking Vitamin A supplementation to the delivery of EPI services has contributed to nearly 80% coverage.
- Preparations for the implementation of food fortification.

Although not focused upon in this report, iron deficiency continues to be a major threat to the wellbeing of children in Ghana. The 2003 DHS reported that over $\frac{3}{4}$ of the children 6-59 months suffered from some level of anemia, with 47% of them being moderately anemic. Given the endemicity of malaria in Ghana, the GHS has wisely incorporated preventive measures to reduce malaria as part of anemia reduction efforts. The (pilot) Community-based Growth Promotion project documented significant nutritional improvements (appendix 5).

4.4.3 Nutritional Strategies and Recommendations to Meet MDG 4

The challenge to scaling up the most effective nutritional interventions lies in delivering a limited set of highly effective, consistent messages through multiple channels, many of them outside the formal health system. It is recommended to:

- Improve cross-sector coordination and collaboration among stakeholders: apply a “nutritional lens” Improved nutrition is the outcome of many factors and is affected by policies/strategies and activities of numerous sectors including health, water and sanitation, education, agriculture, and finance. However, as there is no formal institutional arrangement to discuss and commit to achieve good nutrition, the coordination and collaboration of these actors has been less than optimal. Through a “nutritional lens”- review the potential impact of proposed investments; define optimal nutritional inputs from each sector and; identify potential opportunities to integrate nutrition initiatives across multiple sectors.
- Go horizontal to improve coverage of essential nutrition actions (ENA): breastfeeding, complementary feeding, maternal nutrition, nutrition in illness, vitamin A supplementation, iron and folate supplementation, use of iodized salt, and use of insecticide treated bednets. This constellation of evidence-based interventions are included in the HIRD approach. Community-based workers in other sectors (agriculture, water and sanitation, education) could also be purveyors of ENA to families.
- Undertake community-level nutrition inventories of all agencies and NGOs involved in nutritional activities. Standardize guidelines and messages to ensure effective delivery.
- Improve targeting of nutrition programmes: while it is well known that undernutrition occurs mostly during pregnancy and during the first two years of

life, many programmes continue to address broader constituencies, thus diluting impact. Focus on the high risk infants and young children under 2-3 years of age.

4.5 Other Priority programmes

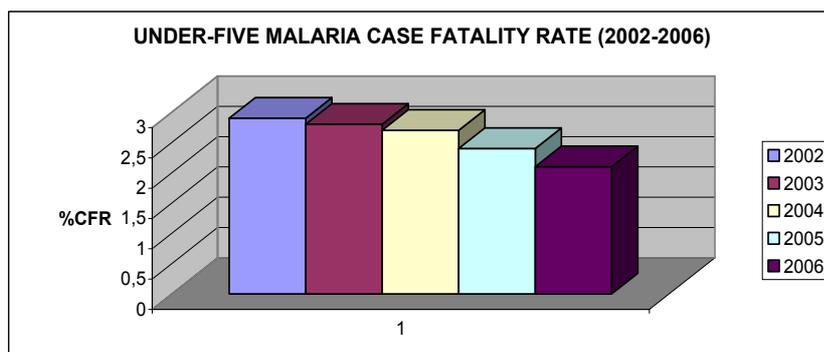
During the review, no indepth analysis was done on malaria, HIV/AIDS, tuberculosis, and Guinea Worm. Given that the set of sector-wide indicators includes indicators on these conditions, key achievements and challenges are briefly presented in this report.

4.5.1 Malaria

In 2006, malaria was responsible for 19% of all deaths across all age groups, an increase of 4% over 2005, but reportedly down from 32% in 2003. It is difficult to know what underlies these changing figures: care-seeking behavior, clinical care or data collection issues. The highest proportion of malaria deaths have consistently been in three regions: Northern Region (46%), Western Region (28%) and Upper East Region (29%) – in the other regions the rate has oscillated around 10%. This mortality distribution conforms to the geographical distribution of higher malaria incidence in the country. Of all malaria deaths, 34% occurred in children <5, and 9% in pregnant women. The toll of malaria in terms of workload loss continues to increase. This is reflected in the increasing number of malaria cases diagnosed by the GHS, rising from 3 million in 2001, to about 3,5 million in 2003, and holding roughly even in 2006, with 3,4 million cases. These cases represented about 44% of all OPD visits each year, down slightly to 38,5% in 2006.. That means there were approximately 170 malaria episodes per 1000 people, who were treated by 7.800 providers (about 450 episodes treated per provider). A little over half of these encounters were treated with ACTs, though again, there was significant variation between the regions (ranging from 25%-91%). Of all episodes treated with ACTs, 93% showed correct response to therapy.

The malaria <5 Case Fatality Rate (CFR) nationwide, included in the set of sector-wide indicators (target for 2006: 1%), has decreased from 2.8% in 2002 to 2.1% in 2006. It was highest in Volta (4.8%), Northern (3.6%) and Upper West (3.7%) regions, and lowest (<1%) in the Central Region and Greater Accra. In Volta, Brong Ahafo and Upper West the CFR in malaria is increasing.

Figure 2. Under-fives malaria case fatality rate.



The proportion of under-5 deaths due to malaria has varied throughout these years.

Malaria has a serious impact during pregnancy, on both the mother and fetus. Of all admissions of pregnant women, one tenth is because of malaria – *increasing* from 8,1% in 2005 to 13,7% in 2006. It is not clear to the team if this is attributable to an increased infection load, to better notification or to women being more aware of the danger.

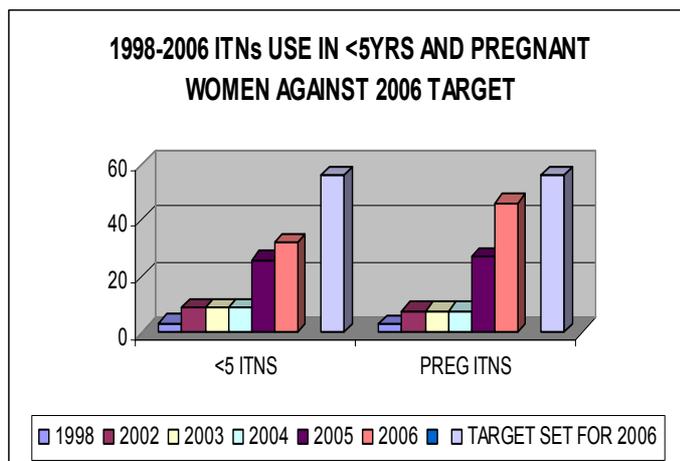
It is important to make an attempt to assess the impact on morbidity of the increasing coverage of IPT and the increased use of ITNs (see below). The team recommends that a specific assessment is undertaken on the impact of preventive activities on morbidity (including trends in attendance and admission rates).

The main strategies of the national malaria programme are: (i) improved case management in facilities, including introduction of the new drug treatment regimen (artesunate / amodiaquine) (ii) promotion of home-based care, with emphasis on symptoms detection and seeking early treatment; (iii) provision of intermittent preventive treatment (IPT) for pregnant women; and (iv) prevention through the promotion of use by pregnant women and under-fives; To strengthen its performance, the Malaria Control programme places special emphasis on monitoring, research (a nationwide Evaluation Survey) and developing partnerships.

During the annual technical review meeting (which took place during the review), the Malaria Control Programme presented progress made during 2006, and remaining challenges. Progress was noted in the following areas:

- Case management. in 2006, the new drug policy was scaled up to all districts and a large number of public and private providers were trained. Over half of malaria cases were put on ACT.
- Home based care: the awareness on ACT varies from 30% (NR, BAR) to 58% (UWR). The proportion of caretakers taking correct action when under-fives have fever/malaria remained constant (around 45%).
- IPT was scaled-up nation-wide, and IPT-1 coverage was 65%. The IPT coverage in 2006 (IPT-1; IPT-2; IPT-3) was significantly higher than that of 2005.
- Many activities were undertaken to promote the use of treated bednets. Nation-wide, in 2006, over 50% of households own bednets (treated plus untreated). Although the rather ambitious 2006 targets for bed-net use have not been met, use of bednets among the target groups has increased. The rates differ greatly between the regions. Of all pregnant women, from 25% (Northern) to 70% (Central, Ashanti) slept under ITNs. Some of this variation may be due to diverse distribution schemes¹². The following figure shows the increase in use of ITNs, among under-fives and pregnant women:

Figure 3. Use of ITNs, among under-fives and pregnant women



(Source: Malaria Control Programme)

Furthermore, spraying activities were undertaken on a pilot basis (Obuasi Malaria Control programme). The results are interesting enough to discuss scaling-up.

The Malaria Control Programme has identified key challenges in the following areas:

- improving diagnosis of suspected cases of malaria (30% of suspected cases are not malaria);
- IMCI / ensuring adherence to the new treatment schemes by patients and prescribers;
- Improvement of data collection.

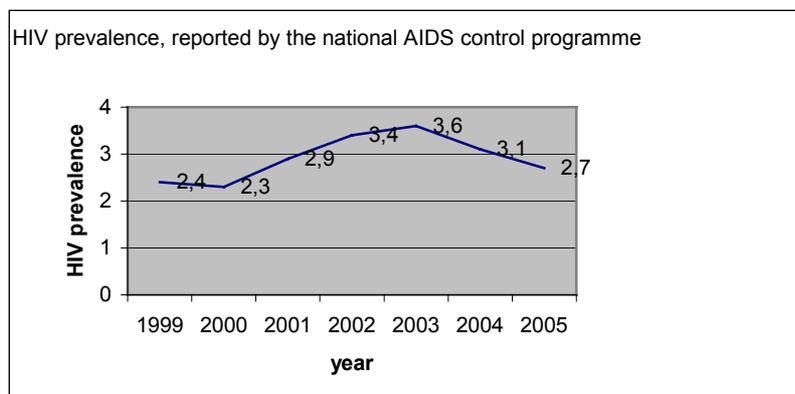
The review team would add the challenge to identify opportunities to strengthen basic health services (district hospitals; health centers; HMIS; supervision; etc.), by making use of the Programme's resources.

4.5.2 HIV/AIDS

In 2005, HIV sero-prevalence in Ghana – one of the sector-wide indicators - decreased to 2,7%, which is close to the sector-wide target (for 2006) of 2.6%, measured among pregnant women. The following figure shows the overall seroprevalence, as reported by the national AIDS control programme (sentinel sites: 24 in 2002; 35 in 2004).

For 2006, a prevalence figure is reported of 2.9%. In its 2006 update, however, UNAIDS mentions a prevalence of 2.3% among the general adult population.

Figure 4. HIV seroprevalence 1999 – 2005



(Source: Malaria Control Programme)

The cumulative number of AIDS cases for the period 1986 – 2005 has been estimated to be 104,505.

The AIDS Programme carries out the following key interventions:

- Roll-out of services for counseling and testing (CT);
- Promotion of services to avoid mother-to-child transmission (PMTCT);
- STI management;
- Care and support for people living with HIV/AIDS (PLWHA), including the establishment of HAART sites.

Voluntary counseling and testing is rapidly growing. People completing the process tripled from 45 thousand in 2005 to 145 thousand in 2006, of which 8,000 tested positive (compared to 3,800 in 2005). More than 36,000 pregnant women were tested in '06 (in contrast to 20,000 in '05), with 2,7% found to be positive (3,7% in '05). The number of districts providing PMTCT services also increased rapidly, from 1 district in 2002 to 82 in 2005 and 131 in 2006. In total, the country runs 341 PMTCT centers. The number of service providers trained is also increasing: 241 in 2005 and 351 in 2006 – amongst the trainees: 61 private midwives and 124 Peer Educators from the Ghana Armed Forces. At the same time, 670 providers of STI services were trained in 2006 (compared with 281 in '05.) Also, 104 associations of PLWA are funded through this effort. In terms of effective coverage (e.g. % pregnant women tested; % mother-baby couples receiving a full course of ART), much remains to be done, however; it would be good to also closely monitor coverage data.

A total of 46 hospitals now have the capacity to provide AntiRetroviral Therapy (ART), compared to 5 in 2005 and 402 health workers were trained in ART. The number of patients under clinical care (which represents probably less than 1% of the HIV positives) grew from 745 adults in 2003 to 6,000 adults (and 300 children) in 2006. –53% are on ART, a significant increase from 25% in 2003. Of all the 6,993 persons found to be seropositive, 95,3% are still alive, while 0,9% have been lost to follow-up.

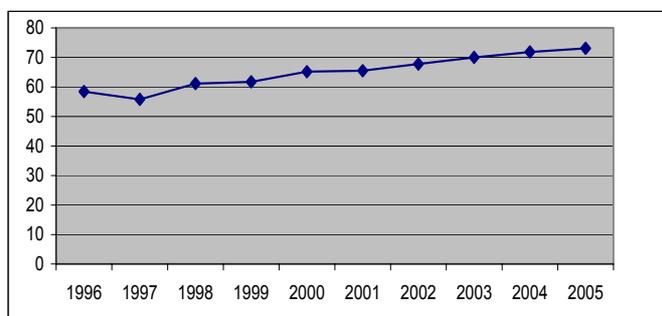
The review team noted with interest this progress made. Progress has clearly been made with regard to the expansion of CT and HAART sites. In most of the districts, HIV/AIDS services are now available: counseling, testing, and therapy; and in some districts, more

than one service centre exists. Beyond this, however, few activities are undertaken, or services offered. The review team feels that more focus should be put on intersectoral action, at all levels. The supra-ministerial AIDS Commission should play a catalyst role. The 2007 programme seems to be quite ambitious, aiming at more than doubling the number of people completing testing and counseling, as well as achieving a six-fold increase in the total number of pregnant women tested. It also aims to quadruple the number of providers trained in 2007 (as compared with the number trained in 2006).and increase the numbers on ART sixfold. Actually, the programme's budget does not pose a problem – but from 2008 onwards, financing might become more difficult, as the need for treatment increases steadily. It is therefore of utmost importance to intensify prevention activities.

4.5.3 Tuberculosis

The sector-wide indicator for Tuberculosis is the TB cure rate. This rate has continually improved from below 60% in '96 to 72.3% in 2006. This increase may seem slow, but it is steady – and may well be attributable to the DOTS strategy, and to the fact that one of the approaches of the National Tuberculosis Control programme (NTP) is to integrate its activities at the district level as much as possible.

Figure 5. Trend of cure rates for Tuberculosis.



(Source: NTP - 2006)

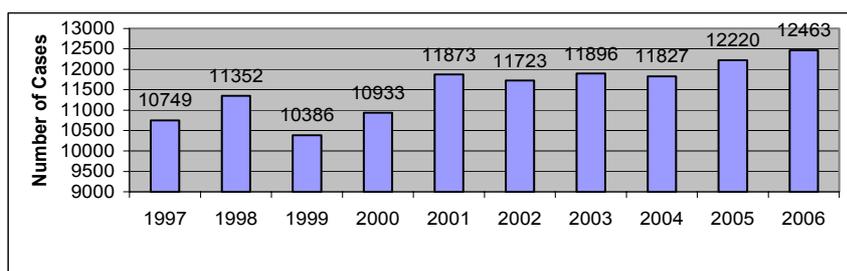
In 2001, in collaboration with major stakeholders, the Tuberculosis Control Strategic Plan for Ghana was developed. Four key strategies were put forward: improved TB case detection; case management and control; forging partnerships to expand DOTS; and focused research. During 2006, the specific programme targets have largely been met, except case detection:

- DOTs expansion to cities: planned 4, achieved 4 (Accra, Kumasi, Tema, Korofidua);
- Treatment success (planned: 60%; achieved: 72.3%);
- 32 districts implementing community based DORS: achieved in 32 districts;
- Planned case detection 40%; realized: 35%..

Although the Cure Rate (a good indicator for sector performance) is doing well, the Detection Rate is not. The nominal number of detected cases has increased to 12,500 in 2006 (Figure 6). Unfortunately and significantly, the ratio of detected cases to expected

cases is around 35% in 2006. The Notification Rate has been around 60/ 100.000 population for several years. Only in Greater Accra (105) and the Western Region (125) has the notification increased; in all other areas, it has gone down since 1997. According to WHO estimates, the expected incidence for TB in Ghana would be 281 cases per 100,000 population. The question is thus posed, is there a denominator problem – in other words, is the estimation of the expected number of cases in the country correct? A population based study is being contemplated to clarify this matter.

Figure 6. Detected number of new TB cases: 1997 - 2006.



(Source: NTP – 2006.)

The fact that the cure rate is steadily increasing, and that the drop-out rate is rather low indicates that the service is performing well. Standardized national treatment guidelines assure quality at all sites. Procurement of drugs and other essentials are integrated into the national Central Medical Stores (there is no specific TB drug supply system). The NTP delivers quality services, and uses quality assurance methodology to avoid stock-outs that previously plagued the system. Supervision to each region is carried out annually by the NTP during a one-week visit. There are no specific TB programme Managers at the regional or district levels, but there are focal points for the programme, who may also be a focal point for another programme. At the annual TB-review, all focal points come to Accra to discuss the TB programme. The review team feels that the NTP has successfully integrated a “vertical programme” into the health system.

Key challenges as identified by the NTP include:

- Enhancing data quality and management;
- Increasing effective coverage of basic health services, to increase access to TB services;
- Improving case detection. The strategy of improved case detection requires acceleration in the provision of more diagnostic labs. Functional equipment and adequate supplies in every district, as well as training of lab staff deployed to these new labs will be critical.
- Managing TB/HIC co-infections;
- Increasing human capacity to implement DOTs; the actual strategy should tackle low detection rate through the use of community volunteers, who might not only support DOTs, but also help to detect new cases.
- Improving logistics: drugs supplies (in 2006, a shortage of TB drugs occurred), sputum containers.

4.5.4 Other Diseases of the Poor

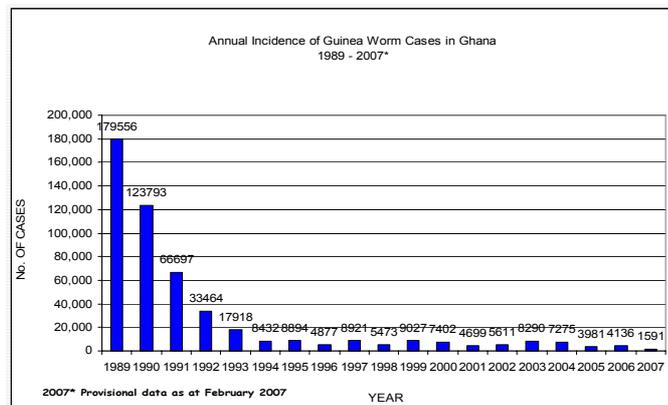
During this review, ‘forgotten diseases of the poor’ could not be given attention. Nonetheless, it is important to keep the momentum for vigorous disease control in this area. The team is confident in MOH/GHS’s technical capacity and drive to do so. One disease, however, merits attention: Guinea Worm. The box below describes the impressive progress made in this area, as well as the challenge to complete interrupt transmission by the end of 2007. High political commitment and support, as well as providing adequate water supply for populations living in those well-known ‘pockets’ where transmission is still ongoing, are mandatory.

Box 1. Guinea Worm Eradication

Guinea Worm Eradication in Ghana

In Ghana, Guinea Worm is still a public health problem. The disease is strongly related to poverty, and the transmission is propagated through unprotected wells. The Government has declared the eradication of this disabling disease as a high priority, and by the end of 2007, transmission of the disease should be interrupted. The approach of the national GW programme includes community-based surveillance, case containment, health education, promotion of the use of water filters, vector control, and advocacy for water supply. Therefore, a strong inter-sectoral collaboration has been developed. This resulted in social mobilisation and education, the establishment of dam guards (to police dams, and to support filtering at water sources).

The following graph shows that considerable progress has been made since 1989.



Through the community based surveillance system, the ‘spots’ of great concern are well known. Although there are still major challenges to ultimately reach the commendable target of breaking the transmission chain, this disease control programme has already proven its efficacy and can be seen as one of the best practices of intersectoral collaboration and proper disease control management by all actors involved, at all levels of the health system.

Nonetheless, there is justified concern about the fact that over the last years, incidence has not really come to a standstill yet.

4.6 Conclusion

This chapter has addressed the performance of the health sector during POW06, concentrating on maternal and child health, as well as nutrition – using the lens of attaining MDG 4&5 goals. In short, although sector-wide performance indicators were not met, with one exception (%<5 malnourished), there were some areas of good performance (malaria, EPI), others that showed growing gains (maternal health – institutional deliveries, TB) and some achievements that were considerable, but were not “captured” by the current indicators (eg development of pre-service curriculum of IMCI for diverse cadres of nurses). The review team also found evidence that during 2006 there was a decrease in flexible funding at district and subdistrict levels. Such a situation would be expected to impact negatively on MCH services. Thus, in this context, “holding the line” in MCH health status performance is an achievement. The chapter included a

situational analysis for each component, maternal, child and nutrition. Findings from the child health analysis indicated that Ghana was currently not on track to meet either MDG 4 or 5 goals, and that significant commitment to new strategies will be needed, along with leadership, political will and investment. In particular, to meet the MDG 4 mortality reduction, neonatal mortality must be reduced; and community-based delivery of proven (evidence-based) child health interventions for the most common causes of mortality must be scaled up (HIRD) to achieve full coverage. Essential nutrition preventive actions must be included in this package of high impact interventions. The engagement of community organisations, outside of the formal health system will be critical. Implementation strategies were discussed, and recommendations made to get Ghana to achieve MDG 4. Such changes are deemed possible, given progress made during the last decade in malaria and EPI programmes, each providing strong community platforms which can be used or learned from, to deliver other priority interventions. Ghana's performance in progress toward MDG 5 was deemed visible, but slow. To reduce maternal mortality by three quarters by 2015, recommendations to accelerate progress were made. Underlying the details of the approach described above, a number of more general recommendations are put forward which will provide an enabling environment for reaching MDG 5:

- There are discrepancies in access of health care in Ghana according to education, wealth and residence. Reaching the poor and most disadvantaged is thus key to reducing maternal mortality. CHPS may provide the modality to bring preventive and promotive maternity services closer to people, but its effect on maternal mortality reduction should be carefully considered. A health centre based intrapartum care strategy is recommended.
- Clear leadership at the highest policy and technical levels for maternal mortality reduction is required in Ghana. This will allow all development partners to "speak with one voice", prevent diverging and confusing messages, and allow channeling of resources to focused interventions for maximum efficiency.
- The investments needed for reaching MDG 5 are as follows:
 - Short term gains can be achieved by investing in measurement and in improving clinical quality in hospitals;
 - Short term gains are unsustainable unless the medium term investment in health centres is made, as described in the earlier section;
 - The formulation of the "Road map in MNCH" as part of the reproductive health strategic plan is an important channel for mobilising funds, although efforts need to be made to ensure that investments through this route do not destabilise the health system as a whole.

Explicit in achieving coverage, is the need to expand and scale up delivery to reach every individual in need of service. In order to do so, health systems must be in place. Thus, the findings of the following chapter are directly relevant to the recommendations in Chapter 4, and will ultimately determine whether or not MDGs are achieved.

5 HEALTH SYSTEMS CAPACITY DEVELOPMENT

5.1 Introduction

‘Achieving MDGs’ and ‘scaling-up’ was one of the key areas for this review. Making progress on these MDGs, with the deployment of pro-poor strategies is mandatory because of the strong relation between poverty and health status. Ghana subscribed to this policy: it needs a healthy population for economic growth. In the previous chapter, specific interventions related to child health and maternal health were looked at. Well organised basic health services and support services are a prerequisite for specific programmes to yield lasting effects. Within the health sector, one recognizes two core components - direct service delivery and enabling environment factors. The system elements for direct (curative, preventive and promotional) services are the health workforce, physical infrastructure, and support systems including drug supply management, supply chain management, and transport (management). Policies, management and planning instruments provide the enabling factors that allow evidence based decision-making, good governance, effective financing partnerships, stewardship and regulation. The team approached the review of the health systems with this background in mind. During the review, specific attention was given to institutional care, HRH, and to a much lesser extent to HMIS and equipment and transport issues. The set of sector-wide indicators also includes indicators on these aspects (except HMIS itself) of systems development. In subsequent chapters 6 and 7, other components of the enabling environment – governance, health financing – are looked at.

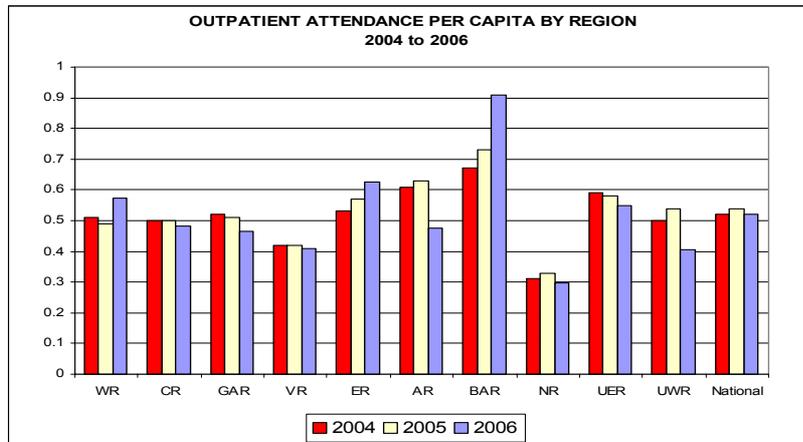
5.2 Institutional care and basic health services

5.2.1 Sector-wide indicators; targets and trends

The set of sector-wide indicators includes indicators on the use of outpatient services (OPD) admission rates, and efficiency indicators, such as bed occupancy rates (BOR).

Overall OPD attendance (in Health Centres, District- and Regional hospitals), has not changed dramatically during POW 2002-2006, and oscillates just above 0.5 (new cases per capita; target-2006: 0.6/cap/yr). Compared to neighbouring countries like Mali and Burkina, this is relatively high, but attendance rates in other African countries (e.g. Southern African countries) show much higher rates (between 1,0 and 1,5).

Figure 6. OPD Rates, by Region; 2004-2006



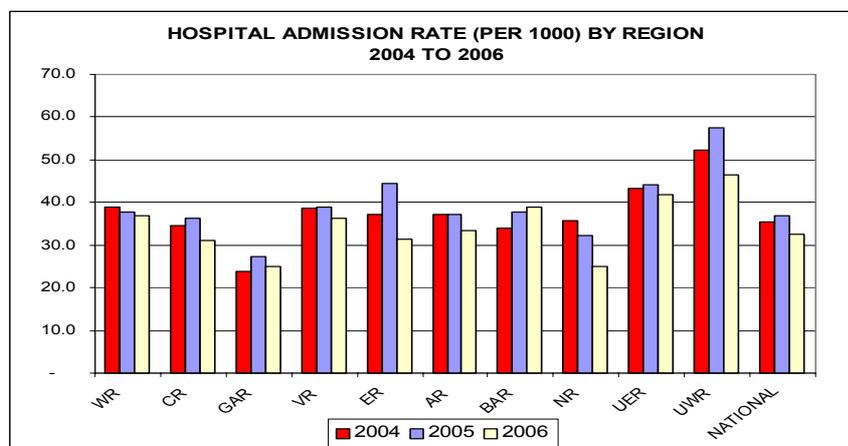
(Source: MOH)

While the overall – low – OPD rates have not changed much over time, some districts and regions (BAR, Eastern, Western Regions) show upward trends, while others show decreasing trends (GAR; AR; UWR). Similarly, there is an important inter-district variation. These data should be cautiously interpreted:

- OPD data from Teaching Hospitals are not included;
- some districts have included data from NGO providers (CHAG; for-profit providers), while others have not.

Overall, the total number of hospital admissions has decreased from approximately 800.000 in 2005 to 730.000 in 2006. Only in BAR the per capita admission increased steadily, in Western and Volta Regions it decreased only slightly; in the remaining regions it clearly decreased.

Figure 7. Admission rates, by Region; 2004-2006.



(Source: MOH)

Nationwide, the Bed Occupancy Rate (BOR) decreased from almost 60% in 2005 to 50.0% in 2006 (source: MOH). The target for BOR in 2006 was set at 80%. Excluding

the TOs, the overall bed occupancy rate (BOR) decreased by 7% to 47%; only in Greater Accra it increased – but in the three northern regions it decreased sharply (12-20%). The following figure shows key hospital indicators for 2006.

Table 4. BOR, average stay of length, and bed-turnover rates, by Region; 2006

Status of bed utilisation in hospitals; 2006			
Region	Bed Occ. Rate (%)	Aver. Length of Stay (# days)	Bed Turnover Rate (%)
GAR	57.6	4.2	49.6
BA	55.1	4.1	49.4
ER	50.7	5.3	34.7
CR	50.4	5.6	33.1
WR	47.5	4.1	41.9
NR	45.9	2.9	57.7
VR	44.3	5.5	29.3
AR	41.6	3.5	42.9
UWR	40.9	3.5	42.8
UER	40.2	3.0	49.1
NATIONAL	47.5	4.3	40.5

(Source: MOH).

The national average length of stay remained the same (4.3 days), the bed turn-over decreased by 10%, and the total number of beds remained the same. Important to note that the situation in Korle Bu and Komfo Anokye teaching hospitals is similar, in that here, too, number of admissions and bed occupancy rates are decreasing.

5.2.2 Institutional care: situational analysis

The overall picture of the indicators on institutional care is not positive. This has also been discussed during the technical performance meeting that took place during the review. It is clear that more insight is needed in the underlying factors of low use. The team recommends that the national agenda for applied research includes this issue.

To address pending issues in hospital care, MOH has developed a *hospital strategy* in 2003. An important number of recommendations are provided (levels of care; type of services by level; etc.), but the follow-up strategy has not yet been put in place nationwide. A Quality Assurance policy has been developed, including the related guidelines – only a few Q/A training sessions have been provided. Furthermore a strategy for private hospitals has been developed, but is not yet put in practice. The development of a national master-plan for infrastructure in the hospital sector is on-going. A service availability survey has also been carried out, but the results are not yet available. A hospital design model is not yet finalised as the criteria have not. An inventory of land ownership of the existing hospitals has not yet been carried out. A document describing the roles and responsibilities has not yet seen the light. A survey on equipment has been carried out and has resulted in establishing the requirements and a plan for requirements – but the development of procurement policies plan (including guidelines and a monitoring plan) is still being developed. A survey to assess the human resources in the hospital sector has

been carried out, but the development of norms and standards still give rise to some confusion. Management training for hospital managers is seen as an urgent need, but a programme has not yet been developed.

What appears to be needed is a strategic plan for the hospital sector, with a clear road map as it seems that the different interventions that do take place need coordination.

POW-2006 included a number of other relevant activities, which, however, were not undertaken, and would therefore merit strong attention during the next POW:

- Definition of roles and functions of all types of health facilities;
- Definition of the package of essential clinical care services at all levels (see also recommendations in chapter 4 on child and maternal health);
- Development of guidelines on siting of health facilities.

The team did not undertake an extensive review of quality assurance in institutional care. However, the following aspects of QA appear to merit more focus in future:

- *Accreditation of health facilities*. Some operational / managerial issues need to be clarified: who is responsible for the re-accreditation of facilities? And: what is the role of MOH in inspection, and how can that role be operationalised?
- Half of district hospitals have *QA teams* in place. However, the scope of the activities is perhaps too limited, since patient perceptions are not systematically assessed (?).
- *The patient's perception of Q/C*: Past Core Welfare Indicators Questionnaire Monitoring Surveys (CWIQ 2003; 1997) indicated an improving patients satisfaction with care received in health facilities. It would be good to update this information and assess patients perceptions on quality of care on a regular basis, as part of HMIS. Socio-cultural acceptability of services would be an important aspect of this ongoing assessment, and is also important action research.

5.2.3 Scaling-up coverage of basic health services

Nation-wide, the geographical coverage (measured as the proportion of the population living within a defined radius of facilities) of health facilities (public; private) varies, and is lower in the northern part of the country. It also appears that capital planning of new infrastructure is not sufficiently taking into consideration strategic planning considerations (Review of CIP; 2006). Perhaps, the selection of sites for new district hospitals has not always been based on a comprehensive technical analysis of health seeking behaviour patterns and other factors impacting on the use of health facilities. The team endorses the recommendations included in the CIP assessment, that the process of decision making in capital planning should be comprehensive and strategic, based on sound data. In-depth analyses on health seeking behaviour and studies on other determinants of utilisation of services (distance, socio-cultural factors, ...) should certainly be included in the sector-wide research agenda.

During the field visits, the team noted that at the district level coverage of facilities, and identifying coverage gaps, is not always mapped. Given the need to expand coverage, and the potential of basic health services to contribute to achieving MDGs, more emphasis could be given to these mapping exercises. This is equally important in urban areas, where (poverty) pockets of low coverage exist. Active involvement of the community is

needed, to determine the organisation of community based health care structures at the sub-district level. The review team considers CHPS as a crucial extension of coverage of health services within the sub-district and commends the GHS for its comprehensive and well-documented CHPS strategy (GHS. Policy Document. No 20. May 2005). A major challenge is to further roll-out the CHPS and to find the required resources to enable that. Crucial resources include: staffing (Community Health Officers), simple means of transport (bicycles / motorcycles), and simple equipment. GHS has made an extensive needs assessment in terms of staffing and equipment, in collaboration with WHO. POW 2007-2011 should include clear budgetary targets to ensure the roll-out of this system. The review team believes that much more progress can be made in achieving MDGs, by further scaling-up the CHPS coverage (see also the previous chapter).

GHS strategies (GHS referral policy and guidelines; February 2006) and legislation on the NHIS provide for a gate-keeper system that encourages efficient and appropriate use of services. Normally, patients would use the health centre (or CHPS structures within the sub-districts) at the entry point for all cure and care. It appears, however, that practice is different: patients enter the health system for primary and secondary care at any level including the (expensive) tertiary level. The NHIS may become an important financial instrument to enhance efficient use of all levels of care. It is therefore important to monitor trends in care seeking behaviour and in referral patterns.

5.3 Human Resources, Leadership and Management

Human resources development for the sector has begun to respond to the crises that was noted in various Aide Memoires since 2002. The core elements of this crisis concern staff retention (including the effects of brain drain), distribution and supply constraints and the need to activate various incentive levers to address these issues. Strategy papers and plans have been developed and HR stakeholder forums held to build consensus on possible strategies. However, the implementation of these plans have been less coherent and focused possibly because of ongoing constraints of resource availability, entrenched institutional arrangements and interests of various professional groups. Despite the hiccups, valiant efforts have been made with a significant increase in intake into all professions training schools and at least for nurses, the data shows significant reduction in intention to emigrate. Appointments into public sector leadership positions are formalized with 4 year duty terms though actual performance based contracts have not yet been implemented. The development and translation of clear management and leadership development strategies into greater sector performance is still not firmed in the perceptions of persons interviewed. Salaries have improved compared to 5 years ago and this, along with other factors may have negatively influenced service delivery performance due to reduced resource availability (see chapter 7; finance).

This section examines the HRH aspects of the 2006 POW (including parts of 2002-2006 5YRPOW), assessing performance against stated objectives. It also reviews the role of the management workforce and management accountability at service delivery levels in producing health results. It examines the management leadership of critical services levels and how managers are developed. Performance monitoring at operational levels is reviewed as part of motivators for effective service leadership and management.

In POW 2002-2006, priority HR interventions included:

- matching numbers with skills across country;
- decentralizing HR administrations budgets and management;
- recognizing and reward performance; and,
- promoting gender equity in employment.

Targets were designed consisting of: developing a strategic HR plan; staff training (increased intakes achieved); staff retention improvement; staff redistribution. The difficulty has been the definition and robustness of the indicators selected for these targets and how they can be measured as well as the lack of baseline measures against which they could be compared.

General achievements of the 2002-06 POW include preparation of a draft HRH strategy, improved staff need projections (though still missing analytical information, and on costs), and some evidence of improved staff retention. HR management at regional levels has improved though the level of impact varies between regions. The Public Sector reform initiative to pilot HR decentralisation in the health sector will be a major step that should be actively pursued. There was no data to assess "gender equity in employment", one the of targets set.

5.3.1 POW-2006. Sector-wide indicators and trends

Achievements

The overall policy aim for 2006 is stated as follows in POW-2006: "The policy thrust for 2006 is to address the issue of imbalance in the health sector workforce through, increased production, retention of trained professionals, redistribution of staff in country to reflect health needs and correct imbalances, elimination of access gap and introduction of performance related rewards system"

The planned results for the 2006 POW were as follows:

- Develop high quality professional training programmes;
- Increase intake into training institutions;
- Ensure equitable distribution of HR to benefit deprived areas;
- Retain trained staff;
- Institute a performance related reward systems; and,
- Foster partnership with non-government providers of health services.

Three main outputs were articulated relating to (a) establishing a "performance related rewards system", (b) "improvement in staff distribution" and (c) "High quality professional programmes developed and training in progress". These concrete outputs were not articulated as quantitative targets and the data available/presented for the review does not necessarily indicate measurement of these outputs. However certain results can be assessed from the responses of key informants.

- **"Performance related reward system in place"**

Performance management development is an often stated objective but what exists are appraisals forms that are requested and filled only for the administrative purpose of completing promotion procedures. Appraisal systems are thus poorly established and it

will be difficult to establish objective performance linked reward systems. It is also unlikely, given the huge administrative capacity needed to regularly appraise 40,000 staff, that a good staff performance management systems will be in place in the near or medium term.

The team feels that staff performance can be enhanced to meet sector objectives by doing a more feasible programme of appraisals aimed at BMC managers (a smaller and more manageable sub-set of staff e.g. DDHS, Med. Supts.), incorporating management performance contracts and accountability of management for sector results in the process. *It is recommended* that job descriptions and competencies of DDHS and Medical Superintendents as key operational posts be formally published and disseminated as a priority.

- **"Improvement in staff distribution"**

There are large increases of intakes into health worker training schools which should positively affect future availability and possibly, distribution of staff (within the ability of personnel emoluments to absorb new staff¹³). But the evidence of better staff distribution is not clear as staff to population ratio trends for the most deprived regions though showing some general improvement is variable (see tables below) and cannot be directly linked to redistribution efforts. It must be recognized that re-distribution will be a difficult and slow process that will require a longer horizon for assessing progress.

The team *recommends* that a very clear strategy for staff distribution must be established along with an effective policy of incentives to target specific deprived locations and job types/cadres critical to attaining key MDGs[e.g. midwives, obs-gyns, paediatricians]. However, payroll limits will affect the options for financial distribution incentives. A non financial approach must be considered along the lines of suggestions made below (see box 2). Staff distribution targets must be set and monitored. Staff posting and distribution must be more forcefully enforced.

The new HR strategy 2007-2011 makes admirable projections for HR supply. But these projections do not reflect what proportion of anticipated increases are aimed at the deprived regions of northern Ghana. (Ghana can learn from South Africa's policy of providing "Rural" and "Scarce Skills" allowances.). Secondly, the projects appear not to discriminate sufficiently between priority needs (e.g. staff needed to enhance progress to attaining MDGs 4 and 5 are not specifically targeted) Given the payroll limit constraints of the sector, what options are there to provide additional distributional incentives? A non financial approach needs to be considered and suggestions are made in the following sections.

Table 5. Nurse – population ratio, by Region; 2003 – 2005.

REGION	POPULATION RATIO (2003)	POPULATION RATIO (2004)	POPULATION RATIO (2005)
Ashanti			1:2579
Brong Ahafo			1:3007
Eastern			1:1707
Central	1:2900	1:1695	1:1729
Greater Accra			1:727
Northern	1:4070	1:2941	1:2684
Upper East	1:3169	1:1408	1:2092
Upper West	1:3159	1:1786	1:1458
Volta			1:1620
Western			1:2199
National avg	1:1649	1:1513	1:1578

(Source: MOH)

According to MOH, this sector-wide indicator for 2006 was 1:1,587 nationwide (target: 1: 1,500). The doctor to population ratio – the other sector-wide indicator on HRH – was 1: 10,700 in 2006 (source: MOH), against a target of 1: 16,500.

- **"High quality professional programmes developed and training in progress"**

It is not clear if specific training programmes started in 2006 but 21 new courses over 5 years and a clear increase in intake has been sustained. Concerning the "high quality" nature of the training programmes, there is little evidence available and what is available anecdotally is negative.

Training programmes have very high student intakes and clarity is needed on the strategy for a matching development of tutors. Targets and projections of tutor needs and student tutor ratios are not readily available as part of the strategy.

The Nurses and Midwives Council has reported of incidents reflecting on the quality of recent nurse graduates¹⁴. Referral rates at final nursing examinations are high (41% average for RGNs, 59% for SRNs!). Suspected reasons include a lack of tutors, inadequate field practice sites and lack of practical supervisors¹⁵. To meet accreditation needs of schools, it appears fresh degree nurses graduates are hired as tutors¹⁶. Emphasis needs to be paid to developing and monitoring of training quality with indicators such as tutor to student ratios; average class sizes; number of students per accredited clinical sites. High failure rates incur a major cost to the sector and to the individual professionals and puts even more pressure on schools with already high student populations to handle retakes. Some of the constraints concerned the selection process into training schools which needs to adhere strictly with laid down criteria and procedures.

5.3.2 Reflections on HRH strategy, targets and achievements

Coordinating HRH supply and inflows

Some new private nursing schools are beginning to graduate students this year. Generally, over the past five years, 20 new training schools have opened in the public sector, of

which one is by CHAG and 6 by private for profit trainers. The need to enhance regulatory oversight and ascertain the quality of the products cannot be overemphasized

Achieving a good cadre mix. The higher intake of trainees appears to be across the board. Some increases are into schools training existing cadres (e.g. nurses) but there are also newly created cadres (e.g Nurse practitioners (UDS Tamale), new Medical Assistants, health assistants (various categories) health Aides, Direct Midwives etc) being trained in increasing numbers. Certain categories have been revised so professional nurses now have 3 categories SRN, RGNs and Degree nurses in training. Community Health Nurses are now trained at both Diploma and Certificate levels. While a vertical skill mix and task shifting approach to middle level workers is desirable, care must be taken to limit the horizontal mix (a mix of cadres with essentially the same or overlapping skills/tasks) or risk complicating an already difficult labour and pay rationalisation environment

Coordinating public and private intake into training schools. Projections of cadres planned for the next few years requires careful coordination of both private and public sector production with a good appraisal of attrition and emigration scenarios. The downturn in nurse emigration for example may mean that having a massive over supply in future will have implications. Secondly, the high personnel emolument costs makes it important to understand how best to absorb the forthcoming supply from current intakes into the workforce.

Mid level health worker emphasis. The current surge of intake of health trainees is broad based and targets a wide variety of cadres. The policy direction to produce mid-level workers has seen marked increases in Community Health Nurses training (to increase CHPS coverage). In addition a new cadre of Medical Assistants has been planned for Kintampo health training school who should have an expanded skills base. The skill base of these particular cadre needed to substitute for doctors in deprived areas and to enhance effectiveness of health centre interventions has to be carefully planned. In Tanzania, Zambia, Malawi, Mozambique, and to some extent Kenya, medical assistants with surgical skills have contributed significantly to extending emergency obstetric care to locations that previously did not have access.

The benefit of producing new Medical Assistants will be lost if their tasks and skills are not enhanced to make a significant impact. *The team recommends* that the role of the new MA must include skills for emergency obstetric and surgical intervention. But this is not enough and an analysis needs to be done of the equipment, staff and other needs of the levels where they shall be operating.

"Health Aides", an auxiliary group have been trained by various hospitals and regions to supplement the base clinical workforce. "Health Assistants", subsidiaries cadres of various technical groups - (clinical, X-ray, etc) are being trained and in addition the National Youth Employment programme (NYEP) announced production of 13,000 "health extension workers" trained and paid by the NYEP with peripheral links to the MOH. It is unclear to the review team what specific niche this cadre will fit into and they do not feature in the proposed HRH strategy (2007-2011). It is therefore *recommended* to conduct a careful skill mix analysis, targeting them to specific areas of need, and assessing the long term implications of the infusion of 13,000 basic care workers (even if

not being paid by MOH) including the need for professionals who will supervise them. Health extension workers will be particularly useful for specific objectives of a push at community water safety and sanitation for example, which are major contributors to ill health.

As to HR supplies in general, the team feels that the health sector must be careful not to use a "shot gun" approach and specific targets should be set for the new cadres needed taking into consideration limitations of current personnel emolument levels and the comparative economic advantage of different cadre types. Detailed analysis is needed by the partners here to understand and target the utility of the new cadres better. It may be best to consolidate the current spread of new cadres into as few categories as possible aiming for a more broad skilled cadre that can be deployed in a flexible manner. For example it will be prudent to extend the basic training of CHNs to include core midwifery to tackle the maternal health area. Given the high personal emoluments proportion of the recurrent budget and continuing expansion of the workforce, there is need for detailed analysis of the fiscal space for absorbing the new workforce.

The quality of graduates of expanded training programmes must be carefully monitored. High intakes will mean pressure on training infrastructure, learning resources including practical training sites.

Dealing with HRH loss

Certain attrition estimates are used in the MOH HRH projections 2007-2011. The review team was unable to determine the basis of these estimations. Nurse emigration intentions (as expressed by verification requests) have dropped and pay is much improved. Improved coordination between the HRHD MOH and the Nurses and Midwives council have helped reduce demand for verifications (that facilitate migration) by 78% (!). The agreed 5 year bond period and the need for MOH sanction before being accepted for verification appears to be effective in slowing emigration. The new HSS pay scales may also be a contributing factor. Again as retention becomes less problematic, more detailed attention needs to be paid to distribution and productivity.

A second source of attrition comes from the age profile of key cadres anticipated retirements. Review team members reported meeting with rather elderly CHOs during field visits with implications for future practical supervision and planning replacements (for example with midwifery qualified CHNs). Other losses (sometimes temporary) need internal policies and guidance. In Greater Accra Region it appeared that applicants for long term study leave and the upgrading course was an important cause of staff shortages¹⁷.

Managing with the existing stock of staff

With 2006 salaries at one of the highest levels in Africa, expectations arise for a commensurate increase in productivity of the workforce and for significant improvements in health output and outcome indicators (Currently, according to a MOH, World Bank report, staff productivity varies widely in the country). HRH availability is now being improved by increased supply and reduced attrition and getting results from having the right numbers requires organizing, distributing and utilizing the workers more effectively.

This section reviews some of the human resource planning and management levers planned or needed to attain better utility from the workforce.

Policies, guidelines, regulations. A number of relevant technical guidelines have been developed in draft form (e.g job descriptions and "skills framework for Medical Superintendents and DDHS) but these are not formally published and are not widely available. The job descriptions and competencies of DDHS and Medical Superintendents as key operational posts should be formally published and disseminated as a priority. The performance monitoring of service delivery managers will be discussed in some more detail in section 5.3.3.

HR Decentralisation. HR planning occur with districts and regions holding workforce hearings as part of the budgeting process in the GHS. How these needs relate to the sector wide projections from the MOH is not clear. Currently staffing needs are based on standardized norms that are more than 15 years old and may not really reflect current workload reality and needs to be reviewed. Various Aide-Memoires during this five year POW period referred to an HR and payroll decentralisation objective including hiring and firing. Though desirable, this objective has been slowed perhaps by an understanding of the complexity of the process and capacity needs required to make this work. The Ministry for Public Sector Reform is said to have initiated a process and has selected the health sector to pilot payroll decentralisation. However, this activity has been stalled because of a lack of funds to train and equip the centres. The pilot process should help generate criteria and standards that each BMC should attain before being allowed payroll authority.

The team recommends that a piloting of the process in a few districts should be done to help generate the criteria and standards that each BMC should attain before being allowed payroll authority¹⁸.

Staff distribution and productivity issues

Getting improved performance from the now better remunerated workforce must be the major focus of HR strategy. Staff distribution targets must be set, measures implemented and monitored. Productivity of staff must be improved through better workload targeting of distribution. Staff posting and distribution must be more forcefully enforced. Regional HR managers cite the absence of staff housing as affecting enforcement of postings to deprived areas and this should be factored into Capital development plans of the sector. The Deprive Area Incentive Allowances (DAIA) have been instituted for some time with mixed results. Analysis in 2006 shows the DAIA constituted a relatively small part of take home pay and is unlikely to influence distribution¹⁹. Therefore more robust measures and incentives must be found to improve workforce distribution. It is recognized that the current PE levels will mean that non financial incentives and measures must play a major role in this. Examples of such measures are noted in box 2.

Box 2. Suggestions for innovative incentives to promote equitable HR distribution

Possible non Financial distribution incentives

- Reduction in period of bond when serving in a highly deprived zone.
- Lower level of income tax deductions cadres located in deprived job areas. (possibly for a fixed number of years)
- Shorter work period requirement before permission to take long study leave/sponsorship for further training.
- Longer duration annual leave for deprived area staff

Possible administrative measures to facilitate distribution

- Assignment of salaries to locations/BMCs with priority vacancies
- Bonding of new medical and other health graduates must include agreed period of service in specified deprived locations.
- Staff allocation and Postings committee should have statutory powers to enforce distribution locations and ensure compliance between all health sector agencies.
- Deprived area service compliance certificates could be part of annual confirmation of registration to practice (regulatory bodies).

Decentralisation of HRH will mean the role of regional HR managers will become even more important. The team's observation is that while HR managers have been useful, so far their performance and roles vary between regions. Their capacity must be built through in-service training and by establishing uniform HRH management systems (e.g. HRIS software, posting and promotions guidelines etc). Various regions have already established their own personnel records systems and these could be shared nationwide to provide better HR data and statistics for planning and productivity analysis²⁰. For this to work well there should be agreed coherence to common data standards and analysis.

The formation of the ministerial committee for staff postings and allocation is a very positive development that will need good operational level data to assess needs and allocate staff efficiently and transparently. The issue of staff productivity requires more attention in the 2007-2011 HRH strategy. The staff projections and indicators need to analyse distribution and productivity trends (either by staff/population ratios by regions and for specific deprived zones, and also by assessing shifts in coverage of key health services per staff (e.g. OPD attendance per prescriber, or inpatient attendance per nurse).

To understand the workforce better HR data (see Box 3) should support better operational decision making.

Box 3. Suggestions for new HR indicators

Possible indicators for improved analysis of HRH utility.

- Staff regeneration and increase ratios:
 - Number of new professional cadres entering the workforce as a percentage of the losses for that year. Can be a regional level indicator.
- Equity in staff distribution:
 - key health worker/population ratios disaggregated by regions and showing trends.
- HR Decentralisation:
 - % and type of staff recruited and paid at local levels
- Training (Student quality indicators):
 - Tutor regeneration (number of new tutors/ tutor losses)
 - Student tutor ratios Trends by various cadres

5.3.3 Management Performance

Context and Achievements

The managers especially at service delivery levels, are an often neglected but necessary component of the health workforce. Improving service coverage and quality and ensuring effective utilisation of health resources requires well skilled managers as an essential part of the health system. In Ghana, the recent pay increases should demand of health workers significantly improved services and managers are essential to ensuring improved outcomes from the investment. In this section the team assessed managers by looking at (a) the adequacy of managers in the system; (b) how management competencies and skills are developed and matched with needs, (c) management support systems and mechanisms that permit efficiency and (d) the context and work environment that enables results. For the purposes of the review the team focused on District Directors of Health Services and to a lesser extent Medical superintendents in charge of hospitals as key service delivery managers..

Having sufficient managers

In 2004, some 67% of District directors met the criteria (having an MPH) and were formally appointed as DDHS. The qualification for DDHS is thought to favour physicians, making it difficult for cadres without an initial professional qualification at degree level to compete for this post no matter their experience and effectiveness, a cause of some mild disquiet. Only 55% of medical superintendents posts were filled during the managerial appointments in 2004. The policy of appointing managers to four year terms is now fully operational in the GHS and if well enforced may motivate good manager performance. Management posts now have specific salary scales attached.

Table 6. Illustrative Proportion of manager posts filled by regions (as at July 2004)

Region	% of DDHS posts filled	% who are Physicians	%med Supt posts filled
GAR	100%	100%	25%
Central	92%	81%	100%
UER	83%	80%	100%
Volta	83%	10%	50%
BAR	77%	70%	60%
Eastern	73%	91%	62%
UWR	60%	33%	0%
Ashanti	56%	40%	59%
Western	55%	100%	64%
Northern	46%	66%	75%
<i>National Avg</i>	<i>70%</i>	<i>62%</i>	<i>100%</i>

DDHS are required to have an MPH (not a management qualification as such) to qualify for selection. Formal management qualifications though desirable are not essential for Medical superintendents and many have not received formal management training though with the level of resources spent on hospital services, having competent hospital managers should be an imperative. Few management courses exist aimed at service delivery managers. The senior health managers course in GIMPA serves as one outlet for training a broad spectrum of managers and is non specific. The GHS proposes to reinstate its DISHOP courses that are aimed at training District Health Management Teams. There are suggestions that RHMTs will also need specific management training to improve their roles as supervisors of DHMTs. The lack of formally published job descriptions and competency frameworks for the various management levels needs to be redressed.

Accountability of managers

The "Aide Memoire" of July 2006 called for establishment of a "Ministerial Task Team" to review the effectiveness of the inter agency service level agreements and the performance management system before the end of 2006. In 2005 (April 2005 Aide Memoire) it called for benchmarking and comparing regional performance, aligned with performance contracts. Not much progress can be reported on these proposed activities though some performance events have been instituted by districts and regions on their own accord. Performance agreements (for management positions) stipulated in the 5 year POW have not been fully instituted. Only regional directors have been given performance agreements. Hospital managers do not have performance agreements though ICD has developed monitoring indicators for hospital services.

In general, there is a lack of accountability from managers for expected results. This is admittedly difficult to institute given the frequent lack of assurance of resources budgeted for, or their inconsistent flow. However, some form of accountability is necessary to encourage improved outputs from the resources invested into health services.

The Eastern Regional Health Administration has been praised by its peers for its "performance league tables" that compares the performance of districts, hospitals and

even sub-districts against agreed indicators and have set up a system for assessing these indicators, weighting and scoring them (composite-indicator) in an objective manner. This does not directly measure performance of the individual manager but motivates managers towards producing results. These assessment mechanism represent good practice that should be reviewed and instituted countrywide. Of particular interest is the involvement of district assemblies, local and traditional leaders in the assessment process. The indicators used cover a variety of areas including "management" and forms the basis for annual awards to BMCs but also for directing support to poorly performing units. Overtime trend results should indicate whether this motivates improved performance by managers.

Performance appraisals of individual health sector staff exist but are rarely done on a regular basis. Running such a systems requires a huge administrative capacity and a more feasible system to influence service delivery should focus on appraising managers.

5.3.4 Summary of HR recommendations

Several recommendations and suggestions are made within the text for specific areas of HR action. In summary, the following was recommended:

Human Resource Development:

- Job descriptions and competencies of DDHS and Medical Superintendents as key operational posts should be formally published and disseminated as a priority.
- Clear strategies for staff distribution must be established along with an effective policy of (non-financial, innovative) incentives to target specific deprived locations and job types/cadres critical to attaining key MDGs;
- As to new cadres, detailed analysis is needed to understand and target the utility of the new cadres better. It may be best to consolidate the current spread of new cadres into as few categories
- Clarify the strategic niche of health extension workers (proposed by the youth employment programme), to avoid duplication and overlap with existing cadres. Assess the long term implications of the infusion of 13,000 basic care workers (even if not being paid by MOH) including the need for professionals who will supervise them.
- In a few districts, piloting of the decentralisation process should be done to help generate the criteria and standards that each BMC should attain before being allowed payroll authority.
- HR data and information should now also focus on quality indicators -e.g. of trainees competence, distribution of recent employees, and workload per staff.
- The proposed Staff Postings and Allocations committee should be clearinghouse for staff distribution by the agencies. It can assist to determine service areas in staffing crisis; match available staff resources with vacancies, skill needs and determine priority placement with collective responsibility to avoid slippage between agencies.

Human Resource Management:

- With a focus specific to managers/BMC heads there is a need to design and formally publish job descriptions, competency frameworks and performance results for all types of managers. This should be linked with performance contracts with clear performance results.
- Management development in the sector needs some level of attention with a setting of priority targets especially for managers responsible for service outputs.

Medical Superintendents will need short management programmes (not necessarily degrees) as a condition for appointment. In general management is best developed through very practical approaches to training and establishing mentoring and coaching systems.

- As things stand currently there is little accountability expected from managers for the results of service delivery. The league tables and other forms of monitoring and support where performance is weak need to be institutionalized.
- Performance appraisal of staff should be initiated for BMC managers. This provides opportunity to set up a feasible system with limited numbers and also prepares managers to be able to handle appraisal systems when this is extended to other staff.
- Overall, there is a need to review and establish a strategy and mechanisms for improving management systems and performance - a) the training/assigning of BMC heads; b) management competencies and skills development, (c) robustness of management support systems (e.g. HMIS) and (d) creating the incentives that motivates managers to perform with the understanding that performing managers drive the performance of other staff.

5.4 The Health Information System

Throughout this review, much discussion evolved around data collection and data analysis. In the chapters on specific interventions to make progress in achieving MDGs (i.e. child health; maternal health), and in the sections on institutional health and HRH, but also in the financial chapter, recommendations are made on regularly collecting and timely analysing data and timely analysis on mortality, on undertaking action research on strategic questions (e.g. impact of preventive malaria interventions; determinants of persisting low use of public health facilities), and on the indicators themselves. Clearly, there is an increasing demand by all actors in the health system for timely and sound data on outcome, service outputs, processes (including intersectoral collaboration – hardly captured in current information systems), and inputs. One of the general impressions of the review team is that more must and can be done to improve the robustness of the information systems.

POW-2006 listed a number of activities. Various of these have not been carried out:

- Development of a sectoral research agenda;
- Establishment of a close link between M&E departments and operational research;
- Review of the interagency capacity, and systems and processes for M&E;
- Management of performance contracts.

Other activities have been implemented, such as the revision of current sector-wide indicators (to be included in the next POW-2007; selection finalised?).

Recent work by GHS²¹ on enhancing its HMIS needs to be mentioned. To provide guidance to (sub)districts and regions, GNHS developed clear guidelines²². It outlines the internal reviewing process, including a time-line for each level when to hold performance hearings for discussing the indicators, on when it should present a report, how aggregation of information is organised. This approach is based on peer-review, aiming at setting priorities and defining feasible implementation strategies – stimulating analysis at the level data were collected. A standard list of well defined mandatory indicators is

provided. A strong feature of these guidelines is that emphasis is put on the use of local data for local analysis and decision making, rather than on providing information to higher (aggregation) level. The advantages of standard reporting are clear: it provides guidance for managers that may have less experience on the matter, it ensures that higher levels will obtain the information they need, and it makes comparison possible between different districts, regions or hospitals. However, the system seems rather ‘heavy’; standard reports are overly comprehensive, and consequently the burden of work may well outweigh the benefits of the system. In the guidelines there are 26 sub-chapters for the report – all of them important – that should discuss 111 indicators that are all important, too.

In a recent attempt to increase its ability to better assess overall performance of the health sector, MOH is currently developing a ‘Central Data Repository’ at central level. This system, which now is piloted with data from in 20 districts, will eventually become a comprehensive database with information on providers, and other agencies. This instrument may further strengthen accountability of MOH towards other players in the health sector, including DPs. As it looks now, the repository stores the facilities without mapping them geographically – it might eventually become an important tool for planning extension of the health care coverage, and for capital investment planning.

5.5 Transport and equipment

During the review, the team was by no means able to undertake an indepth assessment on (the procurement and availability of) transport, equipment and drugs. However, a few striking issues were noticed and merit to be mentioned in this report.

As was already shown by previous reviews, a striking feature of the health sector is its aged transport, as is shown in the following table.

Table 7. Health Sector Vehicle Fleet & Age Percentages (Source MOH Transport Unit)

Age of Vehicle (Years)	Percentage
0 – 5	15%
6 – 10	65%
10 – over	20%

(Source: MOH)

The vast majority of the sector’s vehicles of all categories is over-aged and this obviously has a negative impact on recurrent expenditures at all levels of the health system. It is estimated that approximately over 1,250 various categories of vehicles needs to be procured for the health sector (Source Transport Unit MOH) for the next 5 year PoW. The cost of these purchases - not (yet?) included in the current CIP – were estimated by MOH’s Transport Unit at US\$ 117 million dollars for the next 5 years PoW for the health sector.

Similarly, a massive investment in – especially basic - equipment is needed during the next 5-years POW. The Biological Equipment Unit of the GHS and the CEU unit of MOH estimated that the cost of all equipment needs of the sector for the next 5 year PoW

were estimated as US\$ 315 millions (the team was not given a breakdown of this amount, by type of equipment).

6 GOVERNANCE

6.1 MOH and its agencies

The purpose of this section is to examine and propose ways the Ministry may be strengthened in its Governance of the Sector. It briefly considers:

- How the MoH may be rendered more effective in its collaboration with its Agencies; and,
- Constructive interventions for strengthening accountability mechanisms.

MOH oversees the health sector in Ghana and has the mandate to assess and monitor the country's health status and advise central government on health policies and legislation. The MOH formulates strategies and designs programmes to address health issues and seeks to promote healthy living and healthy habits in the people. The MOH achieves its aims through policy formulation, standards setting, (acquisition for) resource mobilisation and monitoring and evaluating sector performance. The Health Sector Agencies (which are: THBs, GHS, CHAG, Specialized Hospitals Regulatory and Statutory bodies) by legislation and other statutes execute Ministry's policies and exercise regulatory and other functions.

The information obtained from the team's interviews was not always consistent, and assumptions and observations have been made on current practices within the Health Sector that have advised the team's recommendations.

6.1.1 Situational analysis

Effective collaboration

The collaborative relationship between the Ministry and its Agencies is guided by its oversight role. However, the Agencies are statutory bodies in their own right, each headed by Governing Councils or Boards and are thus semi-autonomous institutions and bodies corporate and that may sue or be sued. The juxtaposition of Ministerial oversight and autonomy sentiments on the part of the Agencies has been a prominent issue in the conduct of health sector business. The team's review of the situation suggests that while this is by no means the most significant constraint facing the Health Sector, tensions continued to characterise relations between the Ministry and some of its Agencies, notably the Ghana Health Service.

These were evident to the team in:

- The ongoing attempts at role clarification by the Ministry through deliberate exercises such as the "Restructuring of the Ministry of Health Study" and earlier studies (e.g. KPMG analysis some years ago); the reported lack of a unified approach and weak linkages between certain (seemingly) duplicated roles such as the Human Resource Departments of the two entities; lack of follow-up on earlier attempts to clarify 'core-businesses of MOH and GHS – e.g.

during a meeting in Elmina 2 years ago between MOH and GHS. One issue constantly leads to much debate: the fact that MOH is also involved in the implementation of programmes and services (e.g. procurement); this is perceived as unnecessary duplication.

- A perceived dichotomy between the two entities expressed by some officials about the Ghana Health Service Council seeking to act without deference to the Minister, Regional Health Administrators who did not consider themselves to be representatives of the Minister in their specific Regions, etc.
- Actions of the MoH perceived as ultra vires to its restricted policy formulation (and not implementation) mandate by some agency officials.

The review team conjectures that the MoH/GHS divide may be a result of a mix of a) transitional issues, including the need for legislative review, interpretation and education, and b) the presence of factors that weaken the Ministry's control and leadership.

Transitional Issues in the wake of the coming into effect of Act 525. The legislative instruments that were expected to operationalize law 525 have not been promulgated though drafts were prepared some time ago. It was widely acknowledged that Act 525 may require review in some parts, and that the MoH (as well as the agencies) lacked proper interpretation and appreciation of the intent and spirit of the law in which might favour achieving using structured dialogue and not simply administrative fiat. Section 2 (a) which stipulated that health personnel in the employment of the MoH would comprise the new Service, saw senior health personnel in critical policy roles move into the GHS. For a while they exercised dual functions straddling both organisations. This initial duplication may have given rise to tensions seen during the transition period as the actions and processes for realizing the separation of functions were not well structured and managed. Issues of seniority, hierarchy of senior positions in the GHS and MOH are perceived as having played a role in the difficulties between the MoH and the GHS.

The team's understanding is that Act 525 is currently under review and will be consolidated with other Health legislation as prospective Bills. The draft legislative instruments have not been presented to Cabinet for a number of reasons. It is said that as certain modifications in the Government's decentralisation policy could lead to absorption of GHS District Level institutions, amendments of Act 525 have been put on hold.

Factors Weakening Control/Leadership. There is an expressed need from some quarters for the Ministry to strengthen its capacity to lead and drive the Health Sector with a strong technical support expertise providing technical advice to the Minister. However this poses the risk of entrenching an antagonistic relationship between complementary agencies. Also there is need to take cognisance of the primary role of the Ministry as a civil service institution with policy/political oversight of the agencies who also serve as its technical advisers and not necessarily command and control relationship.

Towards Strengthening Leadership at the MoH

Discussions with senior Ministry officials gave the impression of a renewed commitment to assert authority while building and maintaining a healthy rapport with Sector Agencies by remaining sensitive to the semi-autonomous status of the Agencies and to rather cultivate, refresh and reorient health sector leadership in the vision, mission and guiding principles of 'corporate health', but also concrete steps like a more competent M&E of agencies performance, earned leadership in initiating policy dialogue and policy supervision.

The Performance Contract regime is not yet fully operational at this time and neither are the agency service agreements. Negotiating these to be put in place should help clarify roles, remove perceived operational intrusions while providing structured opportunities for good

oversight.

The MoH is a strategic Ministry with complex challenges. The imperative is therefore to maintain a strong leadership corps that would firmly establish and maintain mechanisms and behaviours internally and in collaboration with its Agencies and Partners (see also next section) and that ensure that behaviours are aligned with set expectations. Perhaps the practice of the Ministry of Finance and Economic Planning to engage the services of private sector experts to play substantive Category A roles is a means of bridging capacity gaps.

Figure 8. Players and roles

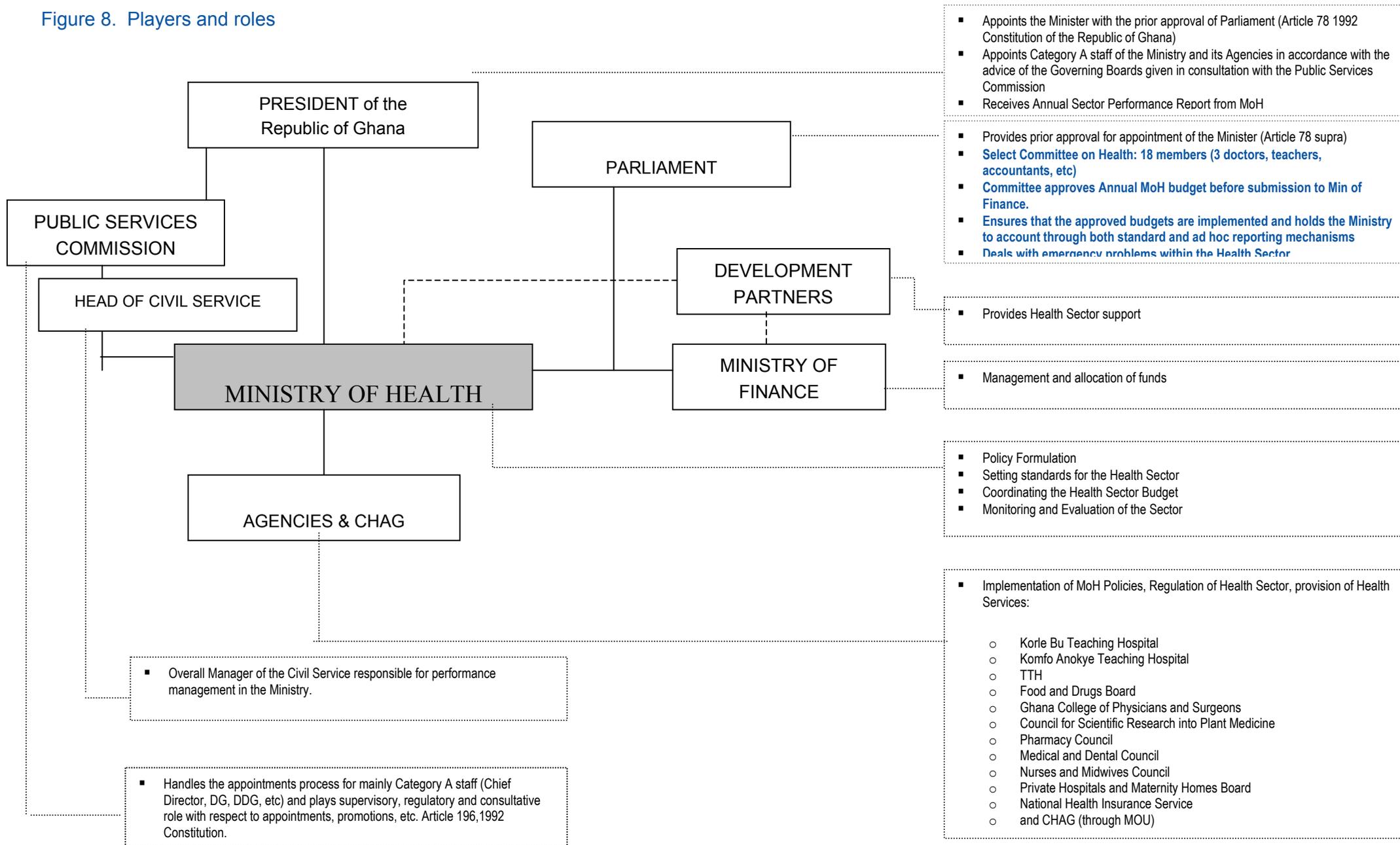
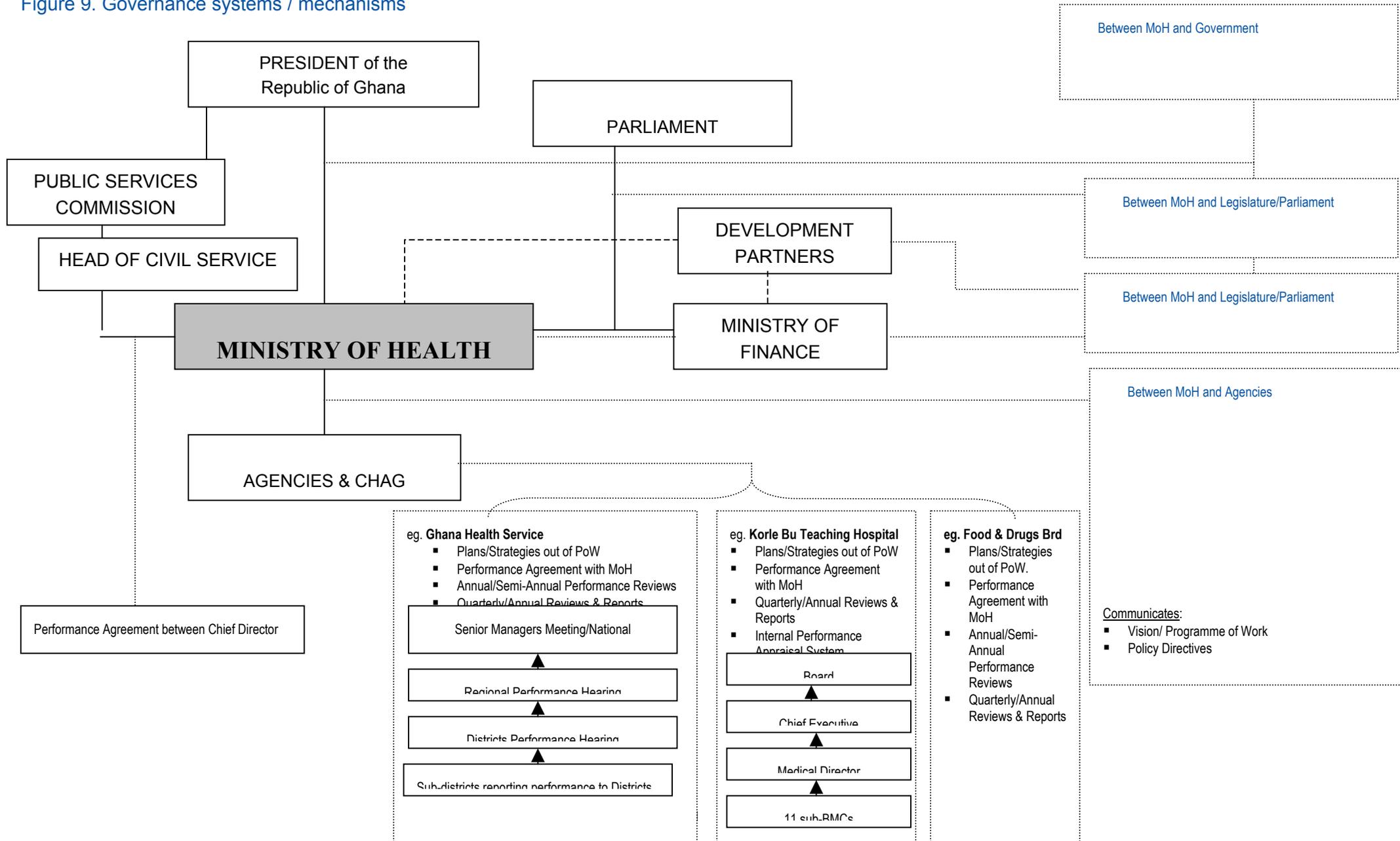


Figure 9. Governance systems / mechanisms



Strengthening Corporate Accountability Mechanisms

The reporting relationships and accountability mechanisms between the Ministry and its Agencies was examined as to how they worked in practice with a view to developing proposals for improved governance and corporate health overall, in order to propel the 2007 Programme of Work.

The Ministry's business is led by the Chief Director, supported by Directors of various Departments, (Finance, PPME, HR, Traditional Medicine, Procurement & Supply and Administration).

The Ministry governs through:

- Policy directives;
- 5-PoW and Annual PoW out of which respective Plans and Strategies are drawn;.
- Quarterly/Annual Reporting;
- Annual Technical Reviews during which they receive reports of the PoW; Independent Reviews; and,
- Heads of Agencies Meetings chaired by the Minister.

(Its leadership is likely to be more solidly served by establishing systems and guidance for implementing these items effectively than any legal fiat can give).

In general the following appear to be the means by which ministry engages the work of the Sector's stakeholders:

- Representation on Councils/Boards;
- Performance Agreements;
- Meetings and Reviews;
- Reports;
- Monitoring and Evaluation;
- Internal Control; and,
- External Control .

Representation on Councils/Boards. The Ministry is represented on the Councils and Boards of the respective Agencies. We ascertained however that the degree of compliance was well below the expected standard because the required representatives were often otherwise occupied. As such, they would either send replacements that were not of the required calibre to provide the appropriate inputs at these meetings and submit the appropriate feedback reports, or not send any replacements at all. In any case Minutes of Committee meetings are required to be submitted to the Minister.

Performance agreements. The Chief Director reports to the OHCS and has signed a Performance Contract with Government through which the incumbent is assessed each year. The team reviewed Performance Agreements signed between the Minister of Health and the Chairman of the Board of the Korle Bu Teaching Hospital as well as one between the Minister and the Chairman of the Ghana Health Service Council in 2004. Neither entity had any Agreement for 2006. On the other hand the Food and Drugs Board said it had signed an Agreement with the Ministry for 2007. No documentation was seen to this effect.

The team was informed that the Ministry has decided to revisit and amend the past Performance Agreements as Agencies had reservations about signing these Agreements in the past due in large part to persistent uncertainty of the level of funding. Some Senior Agency Managers agree that the Performance Agreements were a good tool but that the targets set tended to be generic and did not to match specific job accountability. It is likely that perhaps a more participative peer review system, fine-tuned to reality and playing a more supportive role would be beneficial. This way the process is shared and more consultative.

Meetings and reviews. Policies are communicated by the MoH to the Agencies through the Programme of Work which sets out the Governments' Agenda for the specified period, defining key objectives and targets, setting out priorities, strategies and the resources required to achieve them. The Agencies also make inputs into this process and draw their Annual Objectives, targets from the overall Programme of Work. Feedback is given each year through Annual Health Sector Review fora. The Ghana Health Service and Teaching Hospitals also hold internal reviews. The following lists various types of meetings that aim to ensure accountability:

- Quarterly Heads of Agencies meetings chaired by Minister: This is one way in which the Ministry collaborates with the Sector Agencies. Indeed, it is this meeting that would bring the Heads of Agencies together to sign our proposed Universal Code of Conduct.
- Senior Managers' meetings are held twice or three times a year, comprising Regional Directors/Directors at Headquarters. GHS provides an Annual Report is submitted to the MoH by collating the Senior Managers' Reports and they all participate in the Annual Health Summit.
- The Ministry also organizes inter-agency reviews eg. Technical reviews that review programme areas and where the focus is not on the respective Health Sector institutions but rather on the respective programmes. It was reiterated to us however that given their more multifarious GHS corporate structure of eight (8) Directors and Directorates, this approach was easier with other Agencies but not the GHS.
- An Independent Health Sector Review is also conducted to review and report on the Health Sector's Performance, and to validate the internal assessments already undertaken prior to the external review. Our observation is that these reviews often lack depth of discussion, that the timing is not aligned with the internal planning&management cycles (e.g. often, information is not yet available, because deadlines for internal reporting are not yet reached), and that issues listed are not followed up. Below, the team provides recommendations on future reviews.

Reporting. The Ministry is responsible for coordinating the budgets of the Agencies. Money is disbursed on a quarterly basis and the MoH is required to capture all funds and each agency is required to make reports to the MoH. Quarterly returns and performance reports are submitted to the Minister by the respective Agencies. A summary report incorporating these results is in turn submitted each quarter to the Ministry of Finance and Economic Planning and to the Office of the President.

The team's key observations in terms of Reporting at the Ministry are the need for improvements in the Quality of Reporting and the persistent lack of Feedback on reports submitted to decision-makers:

- Quality of Reports. The integrity of reporting at the Ministry of Health is generally considered weak. Funding Agencies such as Government itself and its Development Partners are eager to be told where the funding went and whether it made the expected impact. A major problem is the inability at the district-to-regional levels to match plans with funds disbursed in their reporting. Also, some funding such as for vaccines, is centralized and thus complicates reporting. It is not clear whether there are any sanctions for late submissions of reports.
- BMCs have constraints that make reporting inconsistent. However with the right incentives and supervision this could improve. For example, when the Greater Accra Regional Headquarters exerted pressure on the institutional managers in 2005, the quality of reports improved.
- The MOH trains information technical officers but there are still limitations with having staff dedicated to gathering and managing data at BMCs level.
- Feedback: Time and time again it was reported to the team that decision makers provided little feedback on Reports submitted. Feedback mechanisms are strengthened by the presence of an effective Monitoring and Evaluation system. Health service managers must also exert pressure to top management, to positively influence decision-making and obtain feedback.

Monitoring and Evaluation (M&E). The team's understanding is that there is still room for improvement of the M & E capacity in the MoH. There are initiatives to develop a database to better capture overall sector performance (see previous section on HMIS). The M&E Unit must also ensure that feedback mechanisms and channels within the Ministry are well in operation.

Internal Control. The Internal Audit Division of the Ministry undertakes the following key activities in respect of Internal Control:

- Audits are planned from the Ministry's 5-year programme of work.
- Out of this audit plan, annual budgets and annual audit plans are developed.
- Audit work programmes spell out staff requirements, time frame, and specific thrust areas for each audit followed by actual audits led by team leaders.
- Supervisors then evaluate the field assignments reports submitted by the team leaders and write the formal audit reports.
- These reports are then sent to those BMCs that were audited for their comments.
- The Auditees submit responses, which are included in the Quarterly Audit Reports to the Minister.

The main constraint with the Internal Audit is the low capacity of audit staff at District level. The Auditor General undertakes external audits of funds disbursed. Due to resource constraints, they are necessarily selective although each district is eventually audited in a comprehensive cycle.

External controls. One key form of oversight control over the Ministry is exercised by the Parliamentary Select Committee on Health. Under Article 103 (3) of the 1992 Constitution, Parliament may investigate and inquire into the activities and administration of Ministries and Departments. In practice, the Minister and his two Deputies readily defer and submit to Parliament. Members of the Select Committee are selected by/from within Parliament and have 18 members.

When Parliament is in Session, the Committee convenes frequently and handles the following:

- The Committee approves annual MoH budget before submission to the Ministry of Finance. It scrutinizes previous performance and determines whether proposed budget is deserved. It may decrease, but not increase the specified budget proposal.
- The Committee ensures that the approved budgets are implemented and holds the Ministry to account through both standard and ad hoc reporting mechanisms
- It also deals with emergency problems within the Health Sector, such as strikes by health personnel by sending queries to the Ministry of Health and requesting explanations of the Minister. It also relates to the Ministry of Finance in respect of health sector budgets.
- The Committee does not insist on monthly reports, but mid-year reports are submitted by the Ministry but Ad hoc reports are often requested from the Ministry.

The team's considered opinion is that the Parliamentary Select Committee's role must be enhanced for ensuring improved sector Accountability.

6.1.2 Recommendations

It will be important for all actors to adopt a 'corporate health sector approach'. It is equally important to provide the framework and incentives to adhere to roles and functions. This should include the possibility of enhancing a positive role for the parliamentary select committee on health.

The MOH must strengthen its leadership capacity. It is likely to be better served by established M&E processes and reporting systems backed by data/evidence based analysis and dialogue and not rely solely on legal fiat.

6.2 Seeking partnerships with the Private sector

6.2.1 Context

In recognition of the immense role of the private sector plays in national development, government policy objective is to increase private sector participation in health care delivery to 50% by the year 2010. As of 2003, the private health sector was providing 42% of health care services in the country, and this has been growing since then. The sector employs over 300 medical and dental practitioners, 400 nurses and midwives, 1200

pharmacists, 10, 000 chemical sellers, and an unknown number of diagnostic facility operators

Given the Ghanaian environment characterized by inadequate public health facilities, many hard to reach areas and poor road networks, inadequate health professionals in the public health delivery system, about a third of the all medical and dental practitioners in Ghana and almost 80% of all pharmacists in the country employed in the private health sector, building networks which include both the public and private health sector actors in the spirit of public – private – partnership can provide a strong and reliable framework for the implementation of the MOH programmes planned for 2007 and beyond, and also contribute significantly to the achievement of the objectives as set out in the 2007 POW.

6.2.2 Achievements and constraints

The indicators for measuring progress in the drive towards public private partnership for health derive from the main processes of governance that will enable the private health sector play its role, namely:

- mandating;
- facilitating;
- resourcing; and,
- partnering.

Mandating: This refers to the legal framework that affects NGOs and other private sectors actors all the way from basic constitutional rights to laws governing the creation and operation of private organisations for health, and their registration.

Various Laws and Acts of Parliament regarding the registration, licensing and regulation of private health sector actors do provide a solid legal framework for their operations. Structures for regulation and governance of the private health sector, namely the Private Hospitals and Maternity Homes Board and the Private Sector Unit at the MOH are in place.

Facilitating: This refers to the provision of incentives by government for private sector actors. There are legal provisions for contracting out of public services to private health sector actors in the spirit of the GHS Act 525.

Resourcing: This refers to actions such as direct public funding in form of contracts, grants and other financial incentives that encourage others to provide resources to NGO, CSOs and other non-profit organisations. Income Tax exemption exists for CSOs, NGO generally, (but not for private hospitals, clinics and maternity homes!). The sector wide indicators also showed 2% expenditure on the private sector from the GoG recurrent budget. (details not available)

Limited contractual relationships exist between private sector actors (CSOs and other private health sector actors) and a few vertical public health programmes.

Partnering: This refers to the formation of service delivery partnerships between the MOH and private health sector actors. Service delivery partnership exists between the MOH and CHAG (MOH supports CHAG institutions with equipment and staff remuneration packages, CHAG uses its facilities for health care delivery and training of health professionals).

Laws governing how government entities operate, e.g. laws governing the registration and licensing of private hospitals, clinics and maternity homes, dating as far back as 1958, are too restrictive and in many cases not relevant to current circumstances. Some of the requirements for the registration of private hospitals, clinics and maternity homes are obsolete and sometimes unreasonable, putting unnecessary impediments in the way of potential private sector actors. This reflects in the small number of registration applications that have been approved so far (388 so far!) as against the large number of facilities listed (4000).

The absence of statutes on public hearings and freedom of information legislation (sunshine legislation) that enable private sector actors to discover what government policies and programmes exist or are planned, obtain budget information, and to engage with public officials, are a limiting factor in the drive towards PPP.

Currently no legislation exists for the regulation of private laboratories and other diagnostic facilities in the country. There is the need to pass such a regulation.

Public funding of service contract to private health sector actors is done to a very limited scale (solely in vertical public health programmes).

No substantive membership have been appointed for the Private Hospitals and Maternity Homes Board

Public officers at the MOH should be reoriented to accept and implement public private partnership.

6.2.3 Recommendations

- MOH and its Agencies including the GHS should make special provisions, such as set asides, for contracting out services to private actors. Contract guidelines should be developed to govern such contracting of private actors by public health sector. Tax and duty exemptions on imported inputs should be applied to all, rather than two, private providers, contributing to public health.
- There are no special arrangements to facilitate bank lending to NGOs and other private sector actors who must rely on loans to establish their facilities and keep going. Strategic partnerships involving the MOH, private health sector actors, and lending institutions could be set up to facilitate borrowing by the sector.
- MOH sponsored private sector capacity building, and information dissemination activities enjoyed by CHAG should be expanded to benefit NGOs, CSO, Private for Profits and other actors in the private health sector, contributing to public health.
- The partnership arrangements that exist between the MOH and CHAG can be extended to NGOs and also for profit private health sector actors. This could be done within the framework of Public Purchaser - Private Provider Contracting For Health Services, with due consideration for the determinants of success or failure of contracts, namely the incentives created by the provider payment mechanism; the adequacy of the accompanying monitoring and information systems; and the readiness and suitability of the service, the market, and the key actors.

- Win-win opportunities for partnerships should actively be identified. These offer potential to contributing to the achievement of health-related MDGs, and to strengthening basic health services, as discussed in this report:
 - involvement of the private sector in promoting healthy lifestyles / RHNP;
 - repackage the RHNP to include practical modalities that emphasize individuals, homes and community roles in maintaining clean environment;
 - create, support and monitor district networks of NGOs, CSOs and Community leaders and empower them to implement the Regenerative Health and Nutrition programme as well as other health promotion activities;
 - provide support for entities that want to set up facilities for recreation and rest and for improving waste management through strategic partnerships with lending institutions;
 - community based provision of water and sanitation facilities:- CSOs can procure public-funded water and sanitation facilities and use them to generate income, whilst public agencies can help strengthen their capacity to maintain and expand;
 - PPP in solid waste management in urban areas;
 - supportive and empowering incentive packages (similar to that enjoyed by CHAG) could be extended to other private health sector actors within appropriate terms of demand and supply, as a way of strengthening the private health sector as a whole with a view to partnering them (either as “gap fillers” of full fledged partners) to deliver clinical care; disease control services; accident and emergency services ; rehabilitation services; and health facility management services.
- to improve the human resource capacity of the health sector MOH could include all organized private health sector actors in its human resource development programmes, including:
 - Support for private health training institutions similar to provision in MOH/CHAG MOU;
 - Organisation and sponsorship of training and capacity building programmes for private health sector actors;
 - Sponsorship of candidates in private health training institutions;
 - Provision of fellowship to private health sector actors similar to MOH/CHAG MOU;
 - MOH could include private health sector actors in its staff retention incentive packages (car loans, housing schemes etc);
 - MOH-funded private sector capacity building and information dissemination activities should be introduced.
- as a way of improving health information management MOU and its agencies could even consider to contract out (parts of) data collection, processing and management functions to private data companies;
- GHS could enter into contractual agreements with private health management firms for the management of its facilities;
- PPP in Managed Equipment Services Projects in Healthcare can provide financing options for private sector development. This sort of partnership could be employed in financing small and medium privately owned projects in the health sector through loans and guarantees programmes that could be set up with the MOH and Investment Bankers.

6.3 Involvement of Local Government

During this review, no indepth analysis could be undertaken on current status and future avenues with regard to devoluting responsibilities in managing specific aspects / levels of health care to Local Government. Undoubtedly, as it is also the case in many other countries, devolution of responsibilities (as opposed to deconcentration of managerial responsibilities within the health sector) will increasingly be on the agenda. So far, active involvement of District Assemblies in shaping local health systems varies from one district to another. Best practices certainly exist, for example in interrupting transmission of Guinea Worm, and in other interventions. On the other hand, there are certainly much more opportunities to strengthen collaboration between sectors at the local level. Since health status depends on a wide range of determinants, this intersectoral collaboration should be well addressed in the next 5 years POW. All this is, obviously, not new. The first and second POWs already stressed the importance of it. It is not easy to translate good intentions in action; therefore, best practices should be identified and discussed, so as to apply them elsewhere.

6.4 The role of development partners (DPs) in supporting the Programme of Work

During POW I (1997-2001) and II (2002-2006), a partnership between MOH and DPs was built up, around the principles of a sector-wide approach (SWAP). The key elements of this approach were:

- a clear nationally-owned sector policy and strategy;
- a medium term expenditure programme that reflects the sector strategy;
- systematic arrangements for programming the resources that support the sector;
- a performance monitoring system that measure progress and strengthens accountability;
- broad consultation mechanism that involve all significant stakeholders;
- a formalised government-led process for aid-coordination and dialogue at sector level; and,
- an agreed process for moving towards harmonised systems for reporting, budgeting, financial management and procurement.

Common Management Arrangements (CMA) stipulated the agreed procedures for doing business. Although this set-up certainly has had teething problems, it appears that confidence in the process has been growing among the key stakeholders. The Donor Pooled Health Fund has been an essential instrument to not only strengthen the policy dialogue, but also to strengthen basic health services and systems on the ground, by making available unearmarked funding for important day-to-day activities, such as supervision of health centres, on-the-job training, HMIS, et cetera.

The recent evaluation of CMA-II, preliminary findings from the ‘partners reviews’, as well as encounters with MOH officials and DPs during this review, all point out that the key actors consider the policy dialogue as crucial. However, based on its encounters with a variety of actors within MOH and among the development partners, the team noted that this dialogue has become tense. It is not easy to identify the underlying factors for this.

One reason for misunderstandings between MOH and DPs is likely to be the observed loose relationship between formulated budgets and budget execution (budget discipline), and diverging views on setting priorities and reflecting those in budget formulation (budget credibility). Another possible reason may be that discussions on reasons why agreed intentions (such as described in the detailed aide memoires and during business meetings) have not been followed-up may not always take place in a business-like manner. Yet another reason may be that the aid structure itself is changing, with trends a) towards shifting DP resources through sector budget support, and towards more ownership by GOG, and b) towards a stronger ‘verticalisation’ of programme execution and –financing. Lastly, the pressure – by GOG, and by some DPs - to achieve results, also in terms of ‘outcome’ (morbidity and mortality reduction), and different expectations about the ‘performance’ of the sector as a whole, may also put some stress on the policy dialogue.

Although the environment and modalities of aid are is changing, principles of SWAP remain important:

- coherent sector-wide programmes of work;
- using all available resources to support POWs in an efficient and transparent manner;
- measuring the performance of the sector by adequate information systems and agreed performance indicators;
- focus on capacity development; and
- robust financial management systems.

Given that the formulation of POW-III and CMA-III is under way, the team feels that GOG/MOH and developing partners should make a concerted effort to establish structured business relationships, and revisit roles and positions of the actors. With new aid modalities, MOH will increasingly take the lead in the sector. At the same time, DPs will increasingly demand well documented and plausible results from the sector. All this (ownership, mutual accountability, building mutual trust by measuring and discussing results) is logical, and has *de facto* always been the longer term vision. But these changing positions require professional business relations, with clear terms and conditions, and transparent discussions on progress, constraints and priorities. (Re)Defining clear roles and responsibilities, and procedures for doing business, are key challenges for the formulation of CMA-III. It is equally important to carefully assess risks of shifting DPs resources towards sector budget support (implications for the size of the resources envelope for health? implications for the policy dialogue? implications for budget credibility and/or discipline?). Some DPs who have been providing resources through the Health Fund have not made firm choices with regard to the use of other modalities. The team feels that it is in the interest of the sector to first assess these risks before drastic steps are taken, and commends those DPs who would intend to undertake these analyses.

6.5 The annual independent review process

During the first two quinquennial Programmes of Work (POW 1997-2001; POW 2002-2006), a systematic procedure for annual reviews has been adopted and implemented. The planning and management cycle of the sequential steps is defined in the Common Management Arrangements, and consists of a series of ‘internal’ reviews (reviews of BMCs at district and regional levels; performance hearings of public health programmes;

annual performance reviews of national institutions; partners reviews), followed by an external independent review of the sector, to validate and interpret the ‘internal’ findings. Overall, the review team is impressed by this procedure, which certainly has produced a good understanding of what is actually happening in the complex health sector in Ghana and has boosted the sector-wide approach. Obviously, there are always technical details that can be debated (e.g.: are the selected sector-wide indicators appropriate, and sensitive / specific enough to allow for fair judgements on ‘sector performance’?), but the fact that an elaborate self-assessment system, validated by external reviews, has been operational is laudible and fairly unique.

Given that the year 2007 is a transition year between the second and the third quinquennial POW, and that the context of aid architecture is gradually shifting towards sector budget support arrangements (undoubtedly leading to new partnership arrangements – see above – and more ownership by GOG/MOH), it is perhaps time to revisit the review process itself.

Indeed, the review team is of the opinion that changes should be made, to enhance the planning & management capacity at all levels within the system, to enhance the sector’s ability to better analyse and interpret health data, and to better position itself in the ongoing dialogue with key actors, such as Ministry of Finance and DPs. Too often, external reviews have been required to collect, aggregate and present health data, while this could have been done by MOH’s agencies. The review team feels that the core role of any external review team is to discuss and assess / validate a comprehensive routine analysis of aggregated data, undertaken by MOH / agencies itself, rather than undertaking this analysis. In other words, more emphasis should be put on internalising the review process, and the role of external reviewers should be redirected towards validating this process.

The team proposes the following broad recommendations:

- Maintain the ‘logic’ of a set of sector-wide indicators; however, use it carefully. For example, indicators on mortality are not suitable to be used on an annual basis (see commentaries on infant- child- and maternal mortality in Chapter 4). It is also important to make clear that (trends of) values of sector-wide indicators alone is a necessary but insufficient procedure to make any judgements on the sector; if an indicator is ‘blinking’ (i.e. not approaching the defined targets), the underlying reasons should carefully be investigated by making use of related data provided by the existing routine health information system(s).
- Revise the planning & management cycle, including the timing (!) of the review process, and – if needed – that of the Health Summit. If an external review team starts its activities, data collection, analysis and interpretation at all levels of the systems should be completely finalised. Now, external reviews are being undertaken while the RHAs have not yet aggregated data from the districts (deadline: end of March 2007), and financial statements on the fiscal year under review are only available by the end of the first quarter of the subsequent year. The – desaggregated - results for the sector-wide indicators should be available.
- MOH should prepare an annual report on the sector-wide indicators, including an indepth analysis of trends. To do this, one annual workshop should be held for programme managers, regional directors, DPs, NGO’s, national & international researchers. By bringing together public health managers, managers of basic health services (from the regions), and others, cross-linkages can be made to better understand any unexpected trends. Now, services and programmes are not

‘talking’ to each other. The workshop should be held after necessary earlier steps: district assessments, programme reviews, agency reviews.

- A small external team (including independent experts from Ghana and elsewhere) may be invited to participate in this process, to validate the procedures and the interpretation of results, and to facilitate the reporting on the results.
- Reconsider the frequency of involving external technical experts for the review process. 2-3 times during the 5-years POW (baseline; mid-term; end-review) might be adequate.
- Use the outcome of the annual workshop for the annual Health Summit.
- And: progressively involve politicians – at all levels – in the presentation / discussion of the findings.

7 Financing the sector

7.1 Sector-wide indicators POW-2006: commentary

Table 7. Sector-wide indicators for finance

Indicators		2001	2002	2003	2004	2005	2006	2007 budget
1	% GOG budget on health	8.7	9.3	9.1	8.2	15	18	15
2	% GOG recurrent budget on health	10.2	11.5	11.2	11.9	14.5	14	14
3	% GOG recurrent health on non-salary items (2+3)	8.1	5.9	6.9	5.4	6.6	7	9
4	% spending on districts and below, items 2+3	NA	40.9	35.4	37.9	36	40	NA
5	% Earmarked / total DP	62.3	32.8	39.5	26.3	40	61	NA
6	% IGF from pre-payment schemes	3	NA	NA	NA	NA	NA	NA
7	% Recurrent funds from GOG+HF allocated to CSOs	1.2	NA	NA	NA	3.1	NA	NA
8	% Recurrent funds. on exemptions	3.6	NA	NA	NA	8	2.2	3
9	Per capita expenditure on health (USD)	6.3	8.1	10.5	13.5	19	25.4	28.1

(Source: Annual sector review, 2005; financial statement for 2006; Budget statements for 2006 and 2007)

Commentary on POW-2006 indicators

1. The first financial indicator – the proportion of the GoG budget allocated to health – has doubled from 2001 to 2006, though it is reduced in the 2007 budget, compared to 2006. However, it needs careful interpretation. It is calculated as the total allocation to health, compared to total government expenditure. While that is a valid comparison, readers should understand that the total allocation includes donor, IGF and statutory

funds. The total allocation therefore includes private contributions (IGF), and non-discretionary expenditure, such as the NHIS. If GoG contributions alone are analysed, the proportion (of GoG allocations to health, out of total GoG public expenditure) is lower: 13% in 2006 and 12% in the 2007 *budget*.

This indicator remains valuable, but if it is being used as an indicator of public commitment to the sector then its interpretation should be narrowed, at least by removing the IGF component, so that private contributions do not inflate it. (For planning purposes, the inclusion of IGF is appropriate, but the SWI are pursuing a different goal of accountability for use of public revenues.) A second very important caveat relates to the difference between budget and expenditure. While the budgeted total for health was 18% of government *expenditure* in 2006, the expenditure was lower, though still substantial, at 14%.

2. The second indicator – the proportion of GoG recurrent funds allocated to health – does not add much clarity to the first. It has been increasing, largely due to the wage bill, but is now stable at around 14%. Again, this is derived from budget, not expenditure, so does not necessarily reflect events on the ground.
3. The third indicator – the proportion of GoG recurrent funds spent on items 2 and 3 – is lower than its starting value in 2001, but has risen to 7% in 2006. Overall, items 2 and 3 received 40% of recurrent expenditure, but this was boosted by non-GoG sources.
4. The fourth indicator – the proportion of expenditure (items 2 and 3) at the district level and below – has been on a gentle decline from around the 40% mark, but in 2006 climbed back to 40%.
5. The proportion of DP assistance which is earmarked was in decline until 2004 and is now rising again (it now forms 61% of the total). This is worrying, given the more complex modalities of earmarked funding and the aims of the Paris Declaration. It is the result of growing earmarked funds from new sources such as the Global Fund, and also declining SWAp contributions into the Health Fund, as a number of larger donors move to budget support.
6. IGF from prepayment schemes has not been easy to track in the past. In 2006, for the first time, it could have been used to distinguish those paying out of pocket from those benefiting from NHIS membership. This breakdown was not available at the time of writing, but should be available in future years, and is an important indicator to track.
7. This indicator has also been hard to track, though it might become more relevant in the next period if broadened to cover contracts for service delivery with non-GHS and non-mission institutions. It is questionable whether there should be targets for this however, as the criterion should be relative efficiency, rather than being a target-driven exercise.
8. Exemptions funding increased from 3.6% in 2001 to 8% in 2005, partly as a result of the maternal exemptions policy which was implemented nationally that year. From 2006, however, the picture becomes more complex, with the scaling up of the NHIS. In 2006, it dropped to 2.2%.

9. The total per capita expenditure on health (excluding private payments outside government facilities) has continued its rise over the period and is now \$25.4 per capita per annum. If the NHIS expenditures were fully reflected in the MoH accounts, this would rise higher (see below).

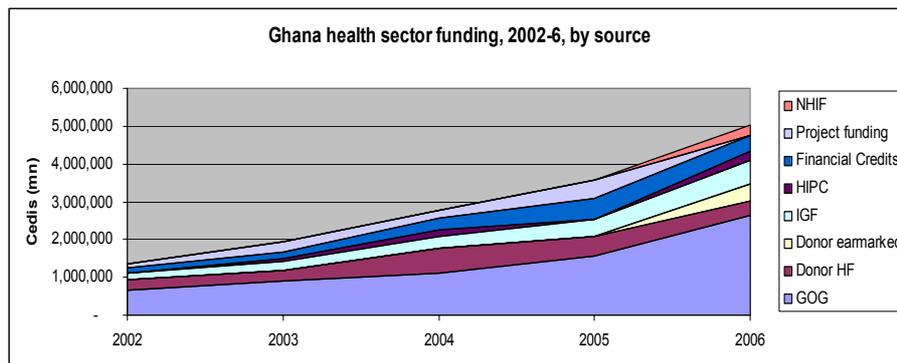
Appendix 4 provides the team’s commentary on the proposed indicators for the next POW.

7.2 Resources for health care

7.2.1 Total resources

Total resources for health have increased by 40% in nominal terms in 2006, compared with 2005. This is equivalent to a real increase of 26%, and a real per capita increase of 23%. This follows a period of expansion over 2002-5 (see figure 10).

Figure 10. Ghana health sector funding, 2002-4, by source



(Source: financial statements, 2002-6)

Looking at total expenditure per capita in relation to GDP per capita over the period of the last five year PoW (table 7), it is interesting to note that the proportion of average personal income spent on health (excluding expenditure in private facilities) increased from 2.8% in 2002 to 4.7% in 2006.

Table 7. Annual per capita expenditure on health, 2002-2006

	Total health expenditure (cedis mn)	Population	Cedis:USD	PC GDP (\$)	Exp PC:GDP PC	Total GoG exp	Total health: total GoG
2002	1,365,201	19,382,131	7944	318	2.79%	11,188,416	12%
2003	1,936,700	19,886,066	8680	384	2.92%	15,639,835	12%
2004	2,759,204	20,403,104	9020	434	3.45%	21,955,878	13%
2005	3,571,674	20,933,584	9100	492	3.81%	25,158,652	14%
2006	5,020,907	21,477,858	9200	538	4.72%	34,887,696	14%

(Sources: financial statement (for expenditure); GSS (for population); GPRSP II (for GDP per capita); Budget Statement 2006 (for exchange rates))

Table 8 shows the changing shares of different sources in the total resource envelope for 2002-6. Note that some of the changes are due to recording differences (e.g. the earmarked column and project funding categories appear to be alternative labels for the same type of aid).

Table 8. Share of health sector funding, by source, 2002-6

Shares	GOG	Donor HF	Donor earmarked	IGF	HIPC	NHIS	Financial Credits	Project funding
2002	49%	19%	0	14%	0		10%	8%
2003	47%	13%	0	13%	4%		9%	14%
2004	40%	24%	0	12%	6%		11%	7%
2005	43%	15%	0	12%	0%		15%	14%
2006	53%	8%	9%	12%	5%	5%	8%	0%

(Source: financial statements, 2002-6)

GoG funds contributed 40-49% of the total over 2002-5 but have increased quite dramatically in 2006 to 53%. The Health Fund has varied between 13% and 24% over the period, but declined in 2006 to 8%. Donor earmarked funds have also shown considerable variation, to the extent of doubling or halving between one year and the next, but are now contributing 9% of the total. IGF formed 14% of the total in 2002 and is now at the slightly lower rate of 12%. HIPC has shown considerable variation – from 0 to 6%. The NHIS is not yet fully accounted for, but transfers at the national level contributed 5% of overall funding. Financial credits contributed 8% in 2006, their lowest rate for the period.

The overall picture is of public finance sources dominating – the GoG funding, together with HIPC and the NHIS make up 63% of sector funding – with IGF remaining an important component and aid reducing in importance.

Table 9. Real change in revenue, by source, 2005-6

	GOG	Donor HF	Donor earmarked	IGF	HIPC	Financial Credits	Total
Real increase 05-06 ²³	54%	-36%	-18%	25%	3112%	-30%	26%

(Source: financial statements, 2005 & 2006)

7.2.2 GoG funding

This increase in GoG funding, as a proportion of the total funding for health in 2006, reflects a number of factors, including:

- a sustained public commitment to health (14% of total public expenditures – close to the Abuja target)
- a rising total public expenditure (there was a nominal increase of 40% in 2005-6)
- the falling contributions of the DP sources
- the addition of extra-budgetary funds from the government and from a World Bank credit in the middle of the year
- the switch from HF into MDDBS by some large DPs, which augments government expenditures and therefore potentially also allocations to health

As shown in table 9, the GoG funding line increased by 54% in real terms over 2005-6.

Taking GoG funding alone, health was due to receive 19% of the budget for 2006 and 12% of the budget for 2007. The medium term expenditure framework shows a declining GoG contribution to health of 10% in 2008 and 2009. This is presumably based on the increased resources which are expected to flow from the NHIS.

7.2.3 Development partners

Direct DP contributions to the sector have dropped significantly in 2006. The Health Fund decreased by 36%, and earmarked funding dropped by 18% in real terms (comparing earmarked funds to project support in the financial statements). The Health Fund is suffering a two-fold squeeze. On the one hand, DPs are shifting to budget support: the EU left first, in 2005, then the World Bank, in 2006; the remaining health fund contributors are discussing a shift in 2008 to some form of budget support (possibly tied to the health sector, though channelled through the MoF)²⁴. On the other hand, other DPs, such as DANIDA, have reacted to concerns over financial management and prioritisation by earmarking their support within the HF in the latter part of 2006. DANIDA is providing only earmarked funds for 2007. DFID has not yet committed itself, either in terms of amounts or channels, for 2007.

While these larger bilaterals are reducing or shifting their mode of support, global initiatives are increasing in importance. The Global Fund, for example, in 2006, provided 4.26% of total sectoral funding, compared to 5.14% from the Royal Netherlands Embassy, 3.08% from DFID and 1.52% from DANIDA.

There will therefore be a plethora of aid mechanisms in operation in future, including, potentially:

- full budget support, via MoF, not linked to health
- sectoral budget support, via MoF, linked to health
- loans, via MoF, linked to health
- health fund, via MoH (but may not continue beyond 2007)
- earmarked health fund (which may not continue beyond 2006)
- earmarked programme funds, via MoH, but restricted in use
- project funds, notified to MoH but passed via other channels and levels
- other unnotified aid funds (including NGO expenditure and other projects, which the MoH is not kept informed about)²⁵

In the face of these challenges, the importance of establishing new mechanisms for sectoral dialogue, priority setting and resource mobilisation is even more urgent than before.

While the reduction in the HF was anticipated, the reduction in earmarked funds is surprising. It may be linked in part to greater restrictions on use of these funds. The earmarked funds had the poorest budget execution, at 69% (see table 10).

Table 10. Budget execution, by source, 2006

Source	GoG	Health Fund	Earmarked Funds	IGF	Total
% of budget accessed	98%	79%	69%	209%	102%

(Source: Financial Controller's office)

An issue which has come to the fore this year is how to handle aid which does not contribute to the PoW. If the PoW is the joint plan for the health sector for the year, then logically, resources for activities which are initiated independently should not be counted as part of the package (if they are, they may squeeze out funds which are needed to complete the planned activities). Some earmarked funds are particularly likely to fall into this category – out-of-plan research, TA, or independent projects, for example. Government and DPs should discuss the distinction and how it can be operationalised in a sensible but sensitive way.

7.2.4 IGF

The IGF line has grown by 25% in real terms over 2005-6. Taking a historical perspective, and viewed as a proportion of the total resource envelope, IGF has grown from year to year, starting at 8.5% at the inception of the SWAp and first 5-year PoW in 1997 to 12% in 2006.

At the national level, IGF is still presented as a single source, despite the recommendation to separate out of pocket IGF from NHIS-funded IGF. It is therefore hard to tell the overall proportion which is now funded from the NHIS.

Once again, the IGF is over-budget (by 83%), which shows both the need and ability of facilities to find their financial support from fees, but also poor budget planning.

In the spirit of the MOU signed with CHAG in 2006, which stresses the integration of CHAG into the public services, the IGF from CHAG facilities should be reported as part of sectoral income in future.

A national health accounts exercise has been conducted in 2006. Full results have not yet been released, but preliminary findings suggest that out-of-pocket payments as a proportion of total health expenditure are 24%. This is however thought to be an underestimate: it was not based on household survey data, and previous estimates from the GLSS 2000 suggested that out-of-pocket payments may be in the region of 50% of total health expenditure.

7.2.5 NHIS

The NHIS is in the unusual position of being included in the health sector planning and budgeting framework, and yet not included in the end of year financial reports (as it is an autonomous body). Transfers at national level are shown under GoG in the financial statements and transfers at facility level are shown as IGF. Although the facilities have been asked to separate NHIS and out-of-pocket IGF, this has not been done systematically at all levels for 2006. As the distinction is important, it is hoped that this separation will be fully accomplished by 2007.

It is also important to capture the other NHIS expenditures which fall outside the MoH accounting system. Full NHIS accounts were not available at the time of writing, but a summary of income and expenditure for the NHIF is given in table 11. Note that these figures do not include funds raised and spent by the district schemes, and that at the time of writing, the NHIF was still owed funds for 2006 from the MoFEP and the SSNIT (two months and three months respectively).

Table 11. NHIF income and expenditure for 2006

NHIF income		%
MOFEP	910,009,176,659	76%
SSNIT	290,097,155,112	24%
Total	1,200,106,331,771	100%
NHIF expenditure		
Subsidy support to schemes	349,682,314,111	44%
Admin. & logistical support to schemes	87,095,475,937	11%
Distress support – schemes	13,175,360,597	2%
Support institutions under MOH	317,170,000,000	40%
Other operational expenses	27,728,598,511	3%
Total	794,851,749,156	100%
Income-expenditure	405,254,582,615	

(Source: Deputy Director for Finance, NHIF)

2006 was the first full year of normal operation for the NHIS, so the pattern of income and expenditure is worth analysing. The figures in table 11 make clear how reliant the NHIF is on its VAT levy, which provides more than 75% of its income. SSNIT

contributions add a further 24%, and premia from informal members (in 2006 at least), via the DHMIS, only added 0.01%.

In 2006, 66% of revenue was expended. This breaks down into three broad categories: 46% of total expenditure went to pay costs of care through the district schemes, while 14% was spent on administration, and 40% was used to support the MoH. Over time, if the NHIS takes on wider purchasing functions, that transfer to the MoH will presumably reduce.

The NHIF expenditures cannot simply be added to MoH accounts, as that would double count IGF contributions and transfers. However, the scale of total income (24% of MoH total revenues) and expenditure (16% of MoH total expenditure) is significant and shows that the NHIS as a source of revenue is currently under-represented in MoH accounts (where it provides 5% of funding for 2006). A rough estimate suggests that if NHIF expenditures were added to MoH ones, the total per capita health expenditure for 2006 would rise to \$27.1²⁶.

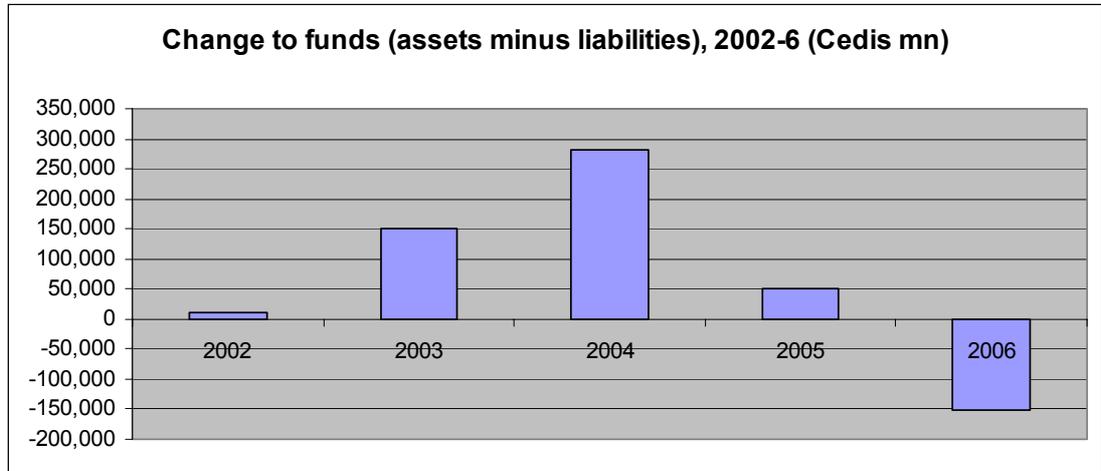
7.2.6 HIPC

After a lull in 2005, HIPC funds were once again allocated to the health sector in 2006. Although 200 billion cedis were allocated in the budget, actual expenditure was 250 billion (5% of total expenditure). 30 billion cedis were allocated to exemptions and 1 billion cedis were allocated to guinea worm eradication, with the remainder used for rehabilitation of KATH.

7.2.7 Funding gap

Previous discussions of the 'funding gap' have centred on the difference between actual expenditure and desired (or needed) expenditure. However, in this review it refers to a more immediate problem of actual overspend. At the end of 2006, the health sector was overspent by nearly 8 billion cedis (0.2% of overall revenue). While this is a relatively small proportion, it is the first time in the PoW II period that the sector as a whole has ended the year in deficit. Moreover, there has been a drop of 21% in the 'balance of funds' (assets minus liabilities) for the sector as a whole in 2006. This indicates that BMCs have drawn on their reserves or borrowed the equivalent of 3% of total revenue for the year. Previous years have added to, rather than taken away from, net funds over the year (see figure 11).

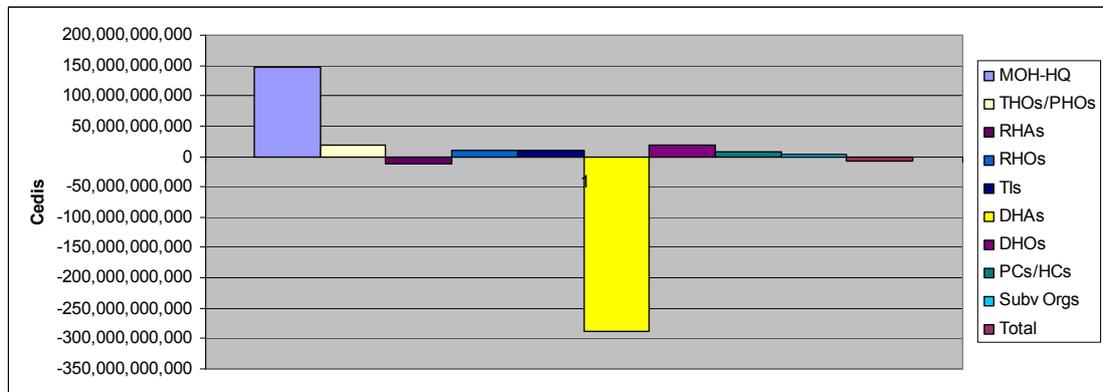
Figure 11. Changes to funds, 2002-6



(Source: Financial statements, 2002-6)

The vast bulk of the reduction in balance of funds (127%) has been incurred by the MoH HQ. The main source was the earmarked programme funding. The deficit of income over expenditure was almost entirely attributed to the DHAs (see figure 12).

Figure 12. Income-expenditure balance, by BMC group, 2006



(Source: Financial statements, 2002-6)

The estimated funding gap for PoW 2007 is presented in table 12 below. Item 4 is particularly under-funded.

Table 12. Funding gap estimates for PoW 2007

Summary of PoW 2007 budget	Need	Share	Total funding	Share	Gap	% Funding
Item 1	2,455,959	31%	2,248,080	38%	207,879	91.50%
Item 2	350,989	4%	350,476	6%	513	99.90%
Item 3	2,718,306	34%	2,388,413	40%	329,893	87.90%
Item 4	2,375,808	30%	911,837	15%	1,463,971	38.40%
Total	7,901,062	100%	5,898,806	100%	2,002,256	74.70%

(Source: annexes 3 and 4, PoW 2007)

7.3 Resource allocation

7.3.1 By line item

Table 13 shows the share of expenditure by line item over 2002-6. From 2005 to 2006, the share for PE increased by 6%, due to a new wage settlement in June, which saw the ADHA amalgamated with salaries, and which increased pay for doctors and some other groups of staff. PE is now at its highest level for POW 2002-2006. The share on administration, on the other hand, has more than halved over the five years. Given that this includes basic running costs, 5% of total expenditure is probably too low. The share on services was relatively stable. The share on capital expenditure slightly rose.

Table 13. Share of expenditure by line item, 2002-6

	Share 2002	Share 2003	Share 2004	Share 2005	Share 2006
Item 1: Personal Emoluments	44%	43%	38%	41%	47%
Item 2: Administration Expenses	13%	10%	10%	11%	5%
Item 3: Service Expenses	24%	34%	31%	27%	26%
Item 4: Investment Expenses	19%	13%	21%	21%	22%

(Source: financial statements, 2002-2006)

Table 14 shows the funding of the line items by source for 2006. PE is almost totally funded by the GoG, with a small top-up from IGF. Administration receives most of its support from IGF, with the remainder from the GoG and the Health Fund. For services, earmarked funds, IGF, Health Fund, GoG, and NHIS all contributed. For investment, on the other hand, financial credits were the major contributor, followed by HPIC, the NHIS, GoG, Health Fund, and IGF.

Table 14. Share of expenditure by source and line item, 2006

Line item	GoG	IGF	Health Fund	Earmarked Funds	Financial credits	HIPC	NHIS
Item 1	98%	2%					
Item 2	26%	51%	23%				
Item 3	8%	27%	15%	43%			7%
Item 4	11%	2%	10%		38%	23%	16%

(Source: financial statement, 2006)

Table 15 shows the 2006 budget and compares it with the 2006 expenditure, by source and line item. While funding from different sources and expenditure on different line items vary considerably, the total expenditure was close to total budget (approx. 5% higher than planned). Some of the internal variance will be familiar from previous reviews. GoG expenditure on PE was 35% higher than budgeted, for example, while PE is consistently underestimated (it was 83% above budgets).

Table 15. Budget vs expenditure, 2006

2006 Budget (cedis mn)					
	PE	Admin	Svs	Investment	Total
GoG	1,702,897	90,000	73,659	53,577	1,920,133
Donor				838,782	838,782
IGF	26,480	77,000	190,662	19,830	313,972
HIPC					200,000
NHIS					1,513,660
Total					4,786,547
2006 exp					
GoG	2,296,371	70,682	109,533	535,916	3,012,502
Donor		61,707	752,999	112,795	927,501
IGF	55,783	141,788	352,639	24,486	574,696
HIPC				250,046	250,046
NHIS			84,800	171,362	256,162
Total	2,352,154	274,177	1,299,971	1,094,604	5,020,907
Variance					
GoG	35%	-21%	49%	900%	57%
Donor				-87%	11%
IGF	111%	84%	85%	23%	83%
HIPC					25%
NHIS					-83%
Total					4.9%

(Source: financial statement, May 2006; annual sector review 2005)

7.3.2 By level & agency

Table 16 shows how the pattern of spending has changed over the years between the different groups of BMC.

Table 16. Share of expenditure by BMC group, 2002-6

	MOH- HQ	THOs/ PHOs	RHAs	RHOs	TIs	DHAs	DHOs	PCs/ HCs	Subv orgs
2002	18%	17%	9%	6%	2%	10%	21%	11%	5%
2003	19%	17%	10%	7%	2%	15%	19%	8%	4%
2004	24%	16%	10%	6%	3%	16%	14%	7%	3%
2005	27%	17%	10%	6%	3%	11%	15%	7%	4%
2006	21%	16%	10%	4%	2%	21%	14%	6%	6%
Target in POW II	12%	23%	23%			42%			
Aggregated	Tertiary level		Regional level			District level		Sub-district level	
2002	35%		18%			31%		15%	
2006	37%		17%			35%		11%	

(Source: financial statements, 2002-6. Note that for convenience subvented organisation expenditure is counted as being sub-district, though in fact, part of it is spent on the equivalent of district hospitals)

The MoH HQ share (which includes the GHS HQ) was creeping up over 2002-5, but has been reduced in 2006. This reduction may partly reflect changed accounting practices, so that purchases on behalf of the lower levels are no longer attributed to HQ costs. At 21%, it remains relatively high compared to the 12% target in POW 2002-2006.

Tertiary and psychiatric hospitals have not changed their share of expenditure much over the period, remaining in the 15-17% range, which is lower than targeted in the PoW II.

The share for regional health administrations, hospitals and teaching institutions has not changed much over the period and at 17% in 2006 continues to fall below the targeted level of 23%.

District health administrations have seen an increase in their allocation from 10% to 21% over the period (again, partly a reflection of changing accounting for supplies purchased by MOH), while district hospital shares have declined from 21% in 2002 to 14% in 2006. PCs/HCs have almost halved their share, from 11% to 6% in 2006. Subvented organisations saw reduced shares in the mid-years, but are now back at a higher share than in 2002, at 6%.

Overall, the tertiary and district levels have gained, over the period 2002-6, while the regional and sub-district allocations have reduced. For the next Five Year Programme of Work (PoW III), it is advisable to put a downward pressure on shares allocated to the tertiary level, in favour of sub-district expenditure, particularly in light of the promotive thrust in the new health policy, Wealth through Health.

7.3.3 By region

At the time of the review, there was no regional breakdown, so no comment can be made on the expenditure pattern across the regions. This information is important for equity analysis and should be made available to future reviews.

7.4 Development of the National Health Insurance Scheme (NHIS) and exemptions

7.4.1 Coverage

At the end of 2005, 22% of the population were registered with the NHIS, but only 6.8% had received cards (i.e. were full members). By the end of 2006, these overall coverage rates had risen to 38% and 19% respectively (see table 17). This shows good progress, though by no means as much as the ambitious targets for 2006 (50% membership) led many to expect.

Table 17. NHIS coverage, 2006

Region	% registered	% members	% ID cards	% indigent	% all exempt	% informal with IDs	Premia/informal memb (cedis)
Ashanti	44	30	21	0%	15	6	105,520
Eastern	37	36	28	0	22	8	95,182
BA	61	56	38	1	26	15	135,135
Central	44	25	11	1	9	4	80,908
Western	35	27	15	0	9	4	127,335
UW	30	29	20	1	17	5	79,438
UE	32	24	16	2	17	5	72,693
Northern	40	31	18	2	15	5	60,792
GAR	19	19	13	0	8	3	112,154
Volta	36	28	13	1	11	2	91,684
Total (%)	38	30	19	1	14	6	
Total (no)	7,673,998	6,130,063	3,947,334	140,994	2,924,919	1,196,653	106,310

(Source: NHIF secretariat data)

In 2005, 72% of registered members fell into the exempt categories, but by 2006 this had dropped to 60% (of registered members, or 14% of the population). There appears to have been a surprisingly large drop in the proportion of indigents, which in 2005 was 30% of those registered, or just under 4% of the total population, while in 2006, it only forms 1.8% of those registered, or 0.7% of the total population. This would mean that 650,000 indigents have been dis-enrolled since last year; this matter needs to be clarified further. Nationally, 6% of the population have joined and received cards as informal sector workers, though in one region (Brong Ahafo), the proportion is 15%. 15% of the

population have joined as under-18 exempted members, and 3.8% have joined as SSNIT contributors.

Table 17 also shows the average premium per informal member across the regions. It is higher, on average, than the 100,000 cedis which was transferred per exempted member by the national level fund, but with regional variations (in Northern Region, for example, the average premium paid was just over 60,000 cedis per person).

7.4.2 Financial sustainability

A cash flow analysis of the NHIS was carried out in 2006 by the ILO (Leger, F. 2006). It showed that if coverage rises quickly (to 83% by 2010), the NHIS as currently organised is likely to be in deficit by 2007 (though with its accumulated funds, it will not have exhausted its reserves until 2010). In the scenario of slower growth (reaching 60% coverage by 2010), the NHIS will remain in surplus throughout the period. This relates to the unusual design feature of the Ghana NHIS, which is that its main income source (VAT levy) is independent of coverage.

It is important that all stakeholders are aware of this, as the NHIS is currently viewed as a rich source to be tapped for funds. This takes two forms. The first is transfers at the national level. In 2006, 256 billion cedis were transferred to the MoH, equivalent to 5% of the overall sector revenue and 40% of the NHIF expenditure for the year. These were used for exemptions (40 billion cedis), training of health care cadres (150 billion) and rehabilitation of KATH (66 billion). The second is at facility level, with plans to pass a higher proportion of curative care costs to the NHIS via increased tariffs for services. (Prices currently reflect a large part of the variable additional costs of care, but they could be changed to reflect all variable costs in future, or even to include total costs, such as staff and capital investments).

The ILO model demonstrates that, even with fairly conservative assumptions, the financial sustainability of the scheme is not assured. Stakeholders should therefore be wary of placing too high expectations on the NHIS too soon.

An ILO study using part-year figures from 2006 found that the average cost per NHIS-funded admission had almost doubled, compared to 2005, while the average cost of outpatient visits had increased by more than half (ILO, 2007). NHIS figures for 2006 also show a higher utilisation rate for members, compared to national figures: 0.748 outpatient visits per annum (compared to 0.52 nationally) and 0.042 inpatient visits (compared to 0.033 nationally) (R. Boateng. NHIC presentation to health partners summit, Accra. 2007). These figures are likely to rise as effective entitlement is extended to more members.

The NHIF is currently discussing a strategic plan, which may contain plans for some of these actions. Zonal offices to support the DMHIS are under discussion. A team, including all stakeholders, is also working on new tariffs. This has potential implications beyond the NHIS as it could lead to standardised rates across the country, both for NHIS and patients paying out of pocket (as opposed to the present varied rates of fee for

service). An initial piece of work carried out by the GHS and other providers, for example, produced a fixed rate for all out-patient visits at lower level facilities.

7.4.3 Equity

The NHIS is generally described as being a pro-poor measure because that was one of its main objectives (to reduce the burden of ‘cash and carry’). However, it is important to verify whether that is in fact its effect (and how its design can be modified to enhance this feature). There are a number of questions that should be considered in relation to this:

1. The progressiveness of its funding sources (SSNIT, VAT levy, premia)
2. Who the members are, and how far they cover the poor, the poorest and the indigent
3. Who uses the insured services, how often and at what cost
4. How the NHIS affects the funding available for the non-insured poor (e.g. through absorbing subsidised resources in the facilities)
5. How efficiently the NHIS serves its members (e.g. the proportion spent in administrative tasks etc.)

It seems to be generally assumed that the NHIS must be positive because it brings in extra revenue, but this extra revenue has opportunity costs. In one district visited by the review team, for example, the district hospital was very happy with the DMHIS, which had allowed it to double its outpatient numbers for the previous year. However, the district hospital serves the population living around the district capital, while for those living in the north of the district, there is no access and facilities in that area are too remote to even sign contracts with the DMHIS. (Getting to the district capital monthly to claim reimbursement would be too difficult.) 90% of the claims made to the DMHIS for 2006 were from the district hospital.

The net effect in that area is that the DMHIS is reinforcing inequity: transferring resources from the general (VAT- and tax-paying) population to those with better access to services. This may or may not be typical, but it is important to investigate these and related equity issues closely.

At present, the system for identifying and giving cards to the indigent is unsatisfactory. The definition of indigent is very restrictive and there is no incentive for collectors to enrol them, as they work on a commission basis. Moreover, it is not clear what the limits are in any given area, either in terms of numbers or budgets. A system of proactive community-based identification should be established, with fixed budgets for each district, based on district poverty levels.

7.4.4 Organisational issues facing the NHIS

It is recognised that the NHIS is still in its infancy and that district level schemes, in particular, face a number of challenges before reaching their potential. These include:

- Developing their financial analysis skills and business planning;
- Improved claims management procedures and software;
- The development of a patient information management system, linked with the GHS;
- Accreditation and quality assurance procedures;

- Strengthened purchasing skills in general, in relation to providers;
- Stronger community links, including through better use of the HIS boards;
- Improved registration procedures;
- A communication strategy for marketing, channelling complaints and reducing frivolous use of the HIS;
- Prescriber training in rational prescribing;
- Standardised IT across schemes.

7.4.5 Exemptions

The aim of exemptions in Ghana has, historically, been to target priority diseases and groups, with a small component aimed at the poor. It has always been under-funded and has faced a number of implementation problems, which are well documented. In 2006 the exemptions programme continued, but with less funding than before, as the burden of providing exemptions is seen as having largely passed to the NHIS.

Table 18 describes the exemptions expenditure for the year. There were four different types of exemptions, with the largest being the maternal deliveries exemptions scheme, which received 65.5 billion cedis. The last year's review suggested that around 98 billion cedis were needed to fund the maternal exemptions for the year. As only 65.5 billion were provided, and most are reported to have been used to pay off back debts from 2005, it is clear that the delivery exemptions programme will have been suspended in most areas. Reports from some districts suggest that the funds which are remaining are being used in a targeted way (as opposed to the universal design of the original scheme). An evaluation of the maternal delivery programme, which was finalised in 2006, found that the scheme had contributed to a significant increase in supervised deliveries, but that it was significantly under-funded (Armar-Klimesu M, et al., 2006).

Table 18. Expenditure on exemptions, 2006

Cedis (Mn)	Supplementary budget	NHIS	HIPC	Earmarked	Total
Children Hospital feeding	1,540				1,540
Maternal deliveries	13,000	40,000	10,000	2,540	65,540
General exemptions			20,000		20,000
Guinea worm eradication			1,120		1,120
Total	14,540	40,000	31,120	2,540	88,200

(Source: Financial Controller)

7.5 Budgeting, disbursement and financial reporting

7.5.1 Budgeting

At present there are a number of concerns about the budgeting process, expressed by different parties:

- some feel that the eventual budgets do not reflect the agreed budgets drawn up in November, and that the execution is also not sufficiently linked to the priorities agreed in November;
- others feel that the budget does not reflect the real priorities;
- others again feel that there are too many earmarked funds (including from the MoH). These do not always follow the priorities agreed and set out in the budget, which undermines the planning process.

To give one example, the additional funds which came to the health sector from the World Bank in 2006 were tied by the MoH to specific activities, rather than being used to top up under-funded flexible funds for BMCs, according to the budget. Similarly with targeting resources for HIRD activities, as DANIDA did late in 2006. While all parties want to see outputs and outcomes improving, there is a risk that this approach leads to a recurrence of the problems associated with vertical programmes: islands of excellence in a sea of health system impoverishment.

Most of these difficulties reflect communication failures, which could be solved if all contributors worked through and talked to the focal persons for budgeting and planning. Horizontal communication between agencies and partners needs to be improved, as does vertical communication within agencies. The review team was asked by a DDHS what her budget was for the year (and this in March!). This reflects badly on all players.

There is an interest at the national level in moving towards output-based budgeting. This is a bit premature, given current accounting systems, which do not allow expenditure to be allocated to activities. A new programme, Accpac, is being introduced to the regions this year. It should be possible in due course to introduce programme codes for some line items.

Sub-districts continue to operate as ‘BMCs of record’, meaning that their account is managed by the district. It is not always clear from district reports how resources are shared between the DHA and the sub-district facilities.

7.5.2 Disbursement

In 2006, the system for disbursement of administrative funds changed, so that funds are sent direct to the district treasuries by the MoF in monthly allocations, according to a cash plan prepared by the MoH. This works well, when viewed from the national level, as it reduces the workload for the MoH and GHS. Moreover, disbursement schedules show a regular disbursement of funds for administration.

However, at district level there is reduced control of funds and increased transaction costs in accessing them. Whereas in the past, the administrative funds went into a health account, they now go into a pooled account. In order to get funds, health managers have to present receipts for expenses already incurred. Multiple signatories have to be assembled. Key paperwork is often lost. Despite allocations being fixed for health (the funds cannot be vired to other sectors), the monies are not always made available in the quantities that they should, according to the payment schedule. There are rumours of bribery to get access to the funds (which the team is unable to substantiate but which should be investigated further). Trips have sometimes to be made to Accra, to sort out

problems. Moreover, this whole process takes place monthly (and for relatively small amounts of money), making it highly inefficient for local managers. A public expenditure tracking study planned for 2007 should clarify some of the bottlenecks.

Currently, there is discussion at national level and in the MoF about changing the way that the service funds are transferred to harmonise with the administrative funds. This change also follows the logic of fiscal decentralisation, whereby funds should be managed in an integrated way across sectors at the district level. While this makes sense in principle, in practice, it is not advisable to shift services to the same disbursement approach until the disbursement problems at the local level are fixed.

In the CMA II, a shift to a system of block grants via MOH was envisaged for items 2, 3 and 4, whereas in practice, the direction of change has been in the opposite direction in recent years.

Disbursement for the Health Fund was low and erratic in 2006 – a small amount was paid in January, then more in August, and then the final amount in January 2007. For GoG services, the picture was worse: nothing was sent out until August 2006. These clearly present challenges for districts in providing services and undermine the performance contract.

7.5.3 Financial reporting

The system of quarterly and half yearly reports in the GHS seems to have lapsed, largely because there is little incentive to spend time on a demanding piece of work when there is little feedback for district staff.

Annual reports were not ready for most of the districts and regions at the time of the review, but those few that were ready revealed problems with financial data. This reflects the scarcity of accounting staff in many areas and a weakening of financial controls. This and other important issues related to financial reporting are raised in the internal monitoring report of December 2006.

7.6 Recommendations

2006 has been a transitional year in terms of funding sources, with the introduction of the NHIS as a serious player in funding of services, but whose role is not yet entirely clear, nor its contributions accurately reflected in the accounts for the sector. GoG contributions continue to rise but are now likely to plateau or drop slightly. Meanwhile, donor support has reduced – both for pooled and earmarked funds – and also fragmented, in terms of the different aid modalities. Thus the sector is faced with greater challenges to plan for and harmonise the use of resources.

While disbursements of flexible funds for services and administration (such as the Health Fund) have reduced, programme funds (which are earmarked) have increased. This works in the opposite direction from reforms to increase managerial autonomy. Integrated planning and budgeting of services at the BMC level is negated if resources are increasingly earmarked. While appreciating the need to encourage managers to prioritise

output- or outcome-oriented activities, there is a real risk of a return to vertical programming.

There is some general concern about the budgeting process, in that the internal allocation within budgets bears little relationship to actual expenditure, and budgets are uneven in their level of detail and approach.

For the first time in this 5 year PoW, the sector as a whole had a deficit (higher expenditure than revenue), which, together with borrowing, resulted in a drop in balance of funds (assets minus liabilities) of 21% (equivalent to 3% of total revenues for the year).

The GoG is now looking to reduce its commitments to health, especially in relation to those BMCs which are able to support their curative care services from IGF and NHIS sources. However, there is a risk of moving too fast here. The NHIS is a young system which is not fully operational yet. Its capacity, systems and coverage are weak.

Expectations of the costs which it can bear should be modest at this stage.

2006 saw a real increase in total funding of 26%, but this growth is unlikely to last and GoG contributions are predicted to reduce over the next few years. The budget compression will then demand some hard choices, for all stakeholders. For the MoH, what should it prioritise, in terms of services, and how can it gain more from less? For the DPs, how can they ensure that changing aid modalities do not damage the gains made over the years in building up a health system in Ghana? For the NHIS, how can it satisfy the high expectations of all without going under financially? These questions go beyond the financial and beyond the scope of this review, but some suggestions for the broad direction of travel are made in the recommendations.

The team recommends the following:

Financial indicators:

- The proportion allocated to health, as tracked in the SWI, should reflect public funds (not IGF) and should ideally be calculated as a proportion of expenditure.
- Coverage (the proportion of the population who are card-holders) should be added to the SWI to track the progress of the NHIS.
- Monitoring of exempt groups within the NHIS should focus on poverty-related exemptions (not the totality, which includes formal sector workers etc.).
- The NHA which was recently undertaken should be updated regularly and its presented in a timely fashion to policy makers.

Financing the sector:

- The MoH should develop a financing plan, based on the new realities, which supports its case for an increased share of GoG expenditure. It should aim for 15% of discretionary GoG expenditure (in the spirit of the Abuja target) – and monitor actual expenditure rather than budgets. The reduced direct support from DPs strengthens the MoH case for increased GoG allocations.
- It is also important to establish the principle that the NHIS funds are additional and should not squeeze out the MoH budget. The aim of the NHIS should be to increase access and reduce out of pocket payment by the public, not to shift costs from the GoG to the public. The lessons of the education sector, where primary education was recently made free, supported by capitation grants, should also be applied to health.
- The DPs are advised to find ways in which to continue direct support to the health sector, either through the HF or through sectoral budget support. DPs who

have shifted to MDDBS have found their level of dialogue and involvement in the sector diminished.

- DPs providing earmarked funds should continue to seek ways of contributing to integrated service planning and provision and to reduce the transaction costs associated with targeting resources. There is a growing international literature on how global initiatives can work more effectively with health systems (see for example, Buse K, Harmer A., 2007).
- DPs still have progress to make on the predictability and timeliness of disbursement of funds for the health sector.

Resource allocation:

- Allocation to the tertiary level (especially HQs) should be reduced in favour of the sub-district level.
- A rebalancing of line items is required. In 2006, PE was over- and administration under-funded.
- The shifting of the burden of curative care to the NHIS should be managed very slowly, in line with the concerns expressed about the current NHIS capacity (in almost every respect – equity, efficiency, and sustainability).

Financial planning and management

- The trend towards earmarked (DP and MoH) funding should be reconsidered, in the light of the risks which it poses to integrated planning, budgeting and service delivery. Managerial autonomy in return for accountability should be the approach. Being output-oriented still requires a strong health system, if you take a longer term perspective.
- Internal systems for reporting, supervision and performance review should be strengthened. Within agencies, ‘soft’ approaches to performance management appear to have worked better than ‘hard’ ones.
- There is an urgent need to address problems of accessing funds from district treasuries, especially if service fund disbursement is to follow the administrative funds. This is an issue which cuts across different sectors: fiscal decentralisation cannot be successful unless the transaction costs of accessing funds are reduced.
- All funding plans and changes should be discussed with the budget officers in the MoH and GHS so that so coherence can be maintained.
- Horizontal communication between all funding parties should be improved, and also vertically within agencies. Those who are responsible for organising services have to know what to expect, in terms of funding flows. The reasons for lapsed reporting systems should be investigated and remedial action taken.

Financial reporting:

- For reporting of IGF, out-of-pocket payments should be systematically separated from NHIS payments at all levels
- The NHIS expenditures need to be accurately reflected in MoH accounts (adding in expenditures which are not covered by IGF or HQ transfers)
- DPs and the GoG should agree guidelines for reporting of extra-budgetary aid (aid which is not ‘filling a gap’ in the PoW)
- CHAG IGF revenues should be integrated into national accounts
- Future reviews should have access to regional break-downs for expenditure (important for equity and allocative efficiency analysis) and also to information on disbursement patterns

NHIS:

- In order to enhance sustainability, the NHIS should focus on:
- setting a strict limit on transfers to the MoH
- negotiating tariffs which provide less of an incentive for supply-induced demand (e.g. fixed payment per case, or even capitation for primary care)
- implementing and monitoring a rational drugs policy
- improving their claims management and vetting procedures
- reviewing the need for small co-payments or limits on the numbers of visits per client per year
- reducing their expenditure on administration (currently 14% of the total)

In addition:

- A study of the equity impact of the NHIS should be conducted
- A proactive community-based approach to identifying the poorest should be initiated, with fixed budgets for each district, based on poverty levels. Funding for exemptions could then be channelled through this mechanism.

8 General conclusions

This annual independent review focused on achieving health related MDGs. Many other aspects and technical areas within the health sector could not be covered in detail. As to scaling-up services, the review team feels that more can and must be done by deploying effective interventions in an efficient manner, while focusing on the – known – determinants of mortality.

The team stressed the importance to strengthen basic health services at the district level and below, for and by the communities, with a specific focus on pockets of poverty, both in urban as well as rural areas. Improving effective coverage of district health care, including strong community based health care within the subdistricts, forms the foundation for effective implementation of specific programmes, and are a prerequisite for achieving MDGs. Ghana has a strong track-record in developing district health care, and momentum can and must be kept.

The team noticed an increasing degree of fragmentation in the sector, and a tendency towards vertical approaches. Although the resource envelope for health and health care was on the increase, the proportion of earmarked funding also increased substantially, at the expense of flexible funding for districts and sub-districts. The challenge here is to identify win-win situations, where vertical programmes strengthen, rather than erode, basic health services. Best practices exist elsewhere, and these should be used as learning examples.

The review also focused on ‘corporate health’, since the health sector is becoming increasingly pluriform. Making sure that roles and responsibilities of the actors, including those of the private sector and other MDAs, are clear, and clarifying modalities of collaboration, will remain important issues for the policy agenda.

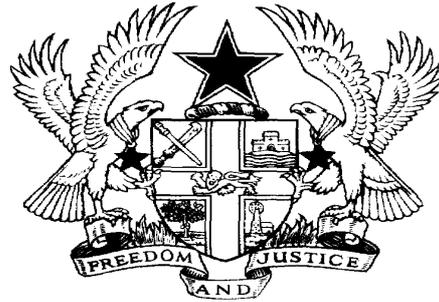
A frequently mentioned area where there is room for improvement is health information management. In a situation where business partners are increasingly focusing on – and hold accountable for - links between inputs and outputs (value for money), there is a need to give high priority to a well performing HMIS and to the establishment of a relevant national agenda for action-oriented health systems research to address complex strategic issues (such as: determinants of persisting low use of health centres; barriers to supervised deliveries; cost-benefit assessment of malaria prevention; etc. etc...).

Human resources development and –management were addressed in some detail. It appears that attrition rates have decreased; this now calls for innovative – non-financial – mechanisms to better distribute staff from a pro-poor focus perspective. Suggestions are provided. To achieve MDGs, the team suggested also to critically look at the ‘skills mix’ needed in the future; one of the answers may well be to invest more in all-round paramedical staff to effectively cover deprived areas with basic services including basic surgery. Furthermore, the team believes that improving managerial skills at the intermediate levels has great potential, and is not necessarily expensive..

2007 is a 'transition year' in between POW 2002-2006 and the next quinquennial POW. The team sincerely hopes that - with its observations and suggestions – it could contribute to further shaping future POWs and ... achieving MDGs.

Appendix 1. Terms of Reference.

a). TORs for the independent review team.



GHANA HEALTH SECTOR FIVE-YEAR PROGRAMME OF WORK 2002-2006

Terms of Reference for the Review of the 2006 Programme of Work

**MINISTRY OF HEALTH
v. January 2007**

Terms of Reference: Review of 2006 Programme of Work

Background

The common management arrangement underlying the implementation of the Five-Year Programme of Work and Government's own commitment to enhance accountability enjoin us to review our performance annually. In line with this commitment, the Ministry of Health, Agencies, Civil Society, Private Health Sector and Partners are jointly reviewing the performance of the health sector in 2006. The independent external review is also required for confirmation of indicators in the PAF of the MDBS framework.

The year 2006 marks the end point of the second five-year programme of work (2002 – 2006). The review would therefore have two main focus:

- review the performance of the sector within the past five years with special attention for the indicators of the MDG's
- to find how the sector has managed the changing health policy environment to include achieving the MDGs.

The 2006 review will include an assessment of the performance of all the agencies and BMCs of the Ministry as well as the Development Partners operating within the health sector. The review will also be strategic in the sense that it will document the gains made under the second 5YPOW (2002 - 2006) and prepare the sector towards the implementation of the new health policy.

Purpose and Objectives of the Review

The purpose of the 2006 review is to assess progress of the health sector in meeting the objectives and targets in the five-year programme of work, and to identify constraints and opportunities for improving performance. The findings of the review would be used to improve the implementation of the 2007 POW and Budget.

The objectives of the review are to:

- Assess performance of the health sector using national, regional and district level trends in established sector wide indicators and targets aimed at achieving the MDGs
- Based on national, regional and district level trends, assess at each level progress and challenges towards bridging geographical inequalities in the health sector
- Analyze the specific contributions and roles of BMCs, Agencies, Civil Society and Private Health Sector and Partners to the performance of the health sector . (This one requires specific attention in the TOR of the independent review team).
 - promoting healthy lifestyles and a healthy environment in health care service delivery,
 - scaling up of priority health interventions,
 - scaling up of registration/card ownership of National Health Insurance,
 - health services financing including budget planning and implementation and progressing the decentralisation
- Identify strengths, weaknesses, opportunities and constraints in the planning cycle of the annual plan/budget, in particular in relation to achieving the health MDG's, the health management information system and its use in improving (planning for) the promotion of health status indicators, particularly those related to the MDG's and the logistic support system in the health sector (transport, equipment, ICT, communication,)
- Assess the use of the recommendations resulting from the review of the POW 2005

- Recommend policy, programmatic measures and investments for scaling up activities towards achieving the MDGs

Focus and Scope of the review

In the year 2015, the health sector must achieve the MDGs. The 2006 review would focus on the progress the health sector has made towards achieving the MDGs by linking the past, present and future interventions. In line with this the review would look at a capacity, risk and incentive assessment.

Organisation and Methodology

The 2006 review would combine both self and independent assessments. It would be organized as follows:

BMC performance reviews - This is the first step of the review process. It would start in January and end in February 2007. All agencies of the Ministry will be responsible for ensuring that Budget and Management Centres (BMCs) under their supervision review their performance against targets set for the year. Specifically, each BMC will conduct a self-review by collecting, collating, analyzing and reporting on its performance using data generated routinely within the health delivery system. The BMC reviews would culminate in performance hearings at the district, regional and national levels.

The performance hearings at the district and regional levels should cut across agencies of the Ministry and should include presentations from GHS institutions, tertiary institutions, CHAG institutions, District Mutual Health Insurance Schemes, Training Institutions, Regulatory bodies where they exist Development Partners, Private Sector, Civil Society and other relevant stakeholders are to be invited to participate in the performance hearings. It is expected that the regional performance reviews would be completed by the end of February 2007.

Agency and Partners Reviews – Agencies will review and consolidate the BMC reports into agency-wide reports and hold a national level inter-agency performance hearing. All Agencies will be required to present their reports to the Minister for Health during the hearing. The Development Partners would also review their contribution to the health sector and present their reports to the Minister of Health at a performance hearing meeting.

This component of the review would take place in early March 2007.

Technical Review – A technical review meeting will be organized ahead of the main sector review to assess progress and constraints in line with the objectives of this review.. During this review, programme managers implementing the priority health interventions will report on progress in their areas.

This would be organized in early March 2007 and would be coordinated by the Ministry of Health and the Ghana Health Service.

Sector-wide Independent Review – This component of the review would be a strategic review of the health sector performance with the focus on achieving the health MDGs taking into consideration regional, urban and urban disparities. An independent team of local and international experts would be constituted to validate and synthesize the reports from the internal reviews conducted by the MOH, Agencies and Partners as well as the reports of previous reviews within the last five years. The team may also conduct field visits to validate the reports but not to collect primary data. The independent review team will produce a report on their analysis of all data available and based on this will make

recommendations on how to improve the performance of the health sector. This component of the review would be organized from March 7 -30 2007 and would be coordinated by the Ministry of Health.

Key areas for the independent review

The independent review would establish where we are in the context of the MDGs through the following:

- Assess the progress made in the priority health interventions and its contribution towards achieving the MDGs
- Assess the MDG indicators with respect to the sector-wide indicators
- Update the sector wide indicators to the current level to serve as a basis for the 2007-2011 programme of work
- Analyze the available capacity (technical, managerial, logistics, infrastructure and institutional) and what is required to move the sector to achieve the MDGs
- Assess the risks both inherent and potential within the changing environment of the health sector that could impede the achievement of the MDGs e.g. Architecture of the MOH and its Agencies
- Strengthening Decentralisation – what are the implications for moving forward the MDGs Global Health Partners
- Financing arrangements – MDBS, Health fund, NHIS
- Analyse incentives within the institutions. Look at what the sector has put in place how they can be aligned and what kind of incentives need to be put in place to push people to perform to achieve the MDGs. The review would also link the incentives to the productivity analysis.

The review would also identify issues that in-depth analyses need to be conducted into.

Team Composition

A team of about 8 consultants with varied expertise would be put together to conduct the review with an identified team leader. The team would be a combination of internal and external consultants. The consultants would be counter-parted with officers from the MOH and its Agencies to facilitate the review process.

Skill mix for Independent Review

- Economist
- MDG (Maternal/child health/nutrition Expert
- Public Health Specialist
- Management Systems Expert
- Human Resource Expert
- Social Development Expert (focus on non-health MDGs and how they influence the health MDGs)
- Health Management Information Systems Specialist

Proposed team members for Independent Review

Rene Dubbledam – Public Health Specialist (Proposed Team Leader)

Julia Hussein – MDG 5 Expert

Sophia Witter - Economist

Jurien Toonen – Public Health

Prof. Anna Lartey - Nutrition

Shawbell Consulting – Management Systems Expert

WHO????? - Human Resource Expert

ISSER ??? – Social Development Expert
UNICEF ??? – Child Health Expert
CIDA???? – Middle level training Experts

Summit – The MOH and Partners summit would be held from 16 – 20 April 2007 to review the analysis and the recommendations of the sector-wide review and map out the way forward. During the summit, discussions would focus on the review reports. A business meeting would be held to agree to the sector priorities and resource envelope for 2008.

Outputs

- Annual sector-wide Review Reports
- Agency Review Reports
- CHAG Review Report
- Multilateral/bilateral Partners Review Report
- Technical Review Report
- Regional and District Review reports
- Review report by the independent review team
- Report of Health Summit
- Signed Aide Memoir

b). Individual TORs for team members.

The independent review would establish where we are in the context of the MDGs through the following:

- Assess the progress made in the priority health interventions and its contribution towards achieving the MDGs
- Assess the MDG indicators with respect to the sector-wide indicators
- Update the sector wide indicators to the current level to serve as a basis for the 2007-2011 programme of work
- Analyze the available capacity (technical, managerial, logistics, infrastructure and institutional) and what is required to move the sector to achieve the MDGs
- Assess the risks both inherent and potential within the changing environment of the health sector that could impede the achievement of the MDGs eg
 - Architecture of the MOH and its agencies
 - Strengthening Decentralisation – what are the implications for moving forward the MDGs
 - Global Health Partners
 - Financing arrangements – MDBS, Health Fund, NHIS
- Analyze incentives within the institutions. Look at what the sector has put in place, how they can be aligned and what kind of incentives need to be put in place to push people to perform to achieve the MDGs

In addition to the above areas of focus, each of the team members would be expected to present an in depth analysis of the review from the perspective of his own specialized area.

The following constitutes the main areas, but not exclusive, where the specialists would concentrate:

1. **Economist**
 - Assess the financial state of the sector and examine the implications of the MDBS on the achievement of the MDGS
 - Examine the Financial Management Systems in the sector and how they can be enhanced to achieve the MDGS
 - Study the current instruments in the systems such as NHIS, CIP and the cash flow to the sector and how it can contribute to the achievement of the MDGs
3. **MDG 5 Expert**
 - Review the Maternal Health Policies and interventions of the sector and determine whether we are on target for achieving the MDGs
 - Identify what the sector ought to be doing to achieve the MDG 5
4. **Child Health Expert**
 - Review all child health related interventions in the light of achieving the MDG 4
 - Identify key factors of child malnutrition
 - Propose pragmatic approaches to achieving the MDG 4
5. **Nutrition Expert**

- Assess the potential contribution of the new health policy direction in achieving the MDGs 4, 5 and 6
- 6. Human Resource Expert**
- Review existing Human Resource policies and strategies of the Ministry towards the achievement of the MDGs,
 - In the light of the MDGS advice the Ministry on the production of human resources, mix and numbers
- 7. Public Health Specialist (Systems Expert)**
- Review the MDG triggers related to health and their interventions
 - Review the performance of the Health Sector based on the M & E indicators as published in the POW
 - Propose other relevant performance-based M&E indicators recognizing international and local commitments such as MDGs, GPRSII etc.
- 8. Support System and Institutional Arrangement**
- Review the procurement systems of the sector
 - Review the Financial Management systems of the sector
 - Review the other support systems such as transport and supplies and how it can support the achievement of the MDGS
 - Appraise the health sector review process including the participation of stakeholders

Appendix 2. Persons met.

Ministry of Health

Dr. Lepowura Alhaji Nuredeen Jawula	Chief Director
Dr E. Addai	Director PPME
Dr. A. Boasiako	Director HRDD
Madam Salamatu Abdul	Director of Administration
Robert Azumah	Deputy Director of Administration
Dr Ahmed	Ag Director of Medical Services
A. Odoi Nartey	Chief Accountant
Herman Dusu	Financial Controller
William Sarbah	Senior Accountant, Internal Audit Unit
K.K. Kontor	Planning Officer
Mrs. J. Kwansah	PPME / Head M & E
Sam Bosamphrah	PPME
Lindsey Craig	PPME
Mr. J.G.K Abankwa	CIMU
Mawuli Hlodze	Head of Monitoring, CIMU
Isaac Adams	Head of Research
Mr. Quarshie	ICT
A. Matilda	Head Central Stores Unit
G. Dakpallah	Head PPBU
A. S. Dumba	Head Transport
Cynthia Bannerman	Quality Assurance
Dr. Adjabu	
B.A. Nkansah	

Ministry of Finance and Economic Planning

Effie Simpson	Director of Budgets
Mr Mensah	MDBS Coordinator

Ghana Health Services

Dr. F. Nyonator	Director PPME, GHS
Dr. G.K. Amofah	Director PHD, GHS
Dr. K. Sagoe	Director HRDD, GHS
Dr. S. Adjei	Deputy Director Gen, GHS
Dr. Awua-Siaw	Director, ICD
D. Osei	Budget Officer, PPME

Henrietta Odoi-Agyarko,	Dep. Director Public Health (Family Health)
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Dr. I. Sagoe-Moses	IMCI, Programme Manager
Dr. F. Bonsu	Programme Manager, Act. Head, DCU
Dr. E. Ampadu	Programme Manager, Buruli Ulcer
Ms. R. Nutakor	Programme Manager, Adolescent Health
Dr. G. Quansah-Asare	Programme Manager, Family Planning
Dr. N. Antwi-Agyei	Programme Manager, EPI
Ms E. Amoiful	Programme Manager, Vitamin A
Mrs. P. Asamoah Tutu	Progr. Manager, Supplementary Feeding
Dr. Bart Plange	Malaria Control programme
Caroline Jehu-Appiah	Deputy Director, Head, Nutrition
Dr. Docia Saka	Acting Registrar, PHMHB
Dr. Maureen Martey	Head, PSU
Mr. Bannor	Exec Member, PA
Mr. Acquah	Head, Coalition of Health NGOs
Mr. Kofi Lukas	Head, Association of Health NGos
Mr. Arhin	Head, TAMD
Mr. van Hesse	Head, Monitoring & Supervision, FDB
Mr. Acheampong	Director of Operations, NHIS
Rev. Jonathan Y Martey	FDB
Dr Patrick Kuma-Aboagye	Reproductive Health Co-ordinator
Dr Tapang	Chief Director, Tamale Hospital

National Health Insurance Council

R. Boateng	Executive Secretary
F.X. Andoh Adjei	Schemes Coordinator
Ahmed Imoro	Deputy Director, Finance

CHAG / Review team

P.H. Kankye	Executive Director, CHAG
B. Haddon	CHAG review; Health Partners Int.
P. Nomo	Director General, Internal Audit Agency
K. Adogboba	Managing Director Health Partners
Ghana	
Elsbet Lodenstein	SNV Adviser

PARLIAMENTARY SELECT COMMITTEE ON HEALTH

Honorable Godfred Othere	Vice Chairman
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PUBLIC SERVICES COMMISSION

Mr Danquah	Head of Human Resource Administration
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DEVELOPMENT PARTNERS

Laura Rose	World Bank
Evelyn	World Bank
Marc Young	Head of Health UNICEF
Victor Ankra	Project Officer, Health, UNICEF

Bjarne Jensen	Chief Health Adviser, DANIDA
Helen Dzikunu	DANIDA Programme Officer
Marius De Jong	Royal Netherlands Embassy/DFID
Makane kane	UNFPA Representative
Charles Fleischer-Djoletto	Family Health and Population Officer WHO
Ute Möhring	Programme Officer, EU
BethAnne Moskov	Health Office Chief, USAID
Andreas Bjerrum	DANIDA JPO
Fiona Patrick	ILO
Josephine Addy	programme Associate IPAS
Koma Jehu-Appiah	Country Director IPAS
Vicky Okine	Executive Director
Dr Sebastian Eliason	NPO-RH UNFPA
Dr Robert Mensah	NPO ASRH UNFPA
Dr Margaret Armar-Klemesu	NMIMR and Impact, University of Ghana
Juliana	USAID

GREATER ACCRA REGIONAL DIRECTORATE

Dr I. Agyapong	Regional Director, Greater Accra Region
Mrs. O. Addae	Chief Nursing Officer
Elsie Oko	HRM Greater Accra
Dr. Acquaye	Ridge Hospital Superintendent
Dr. Evelyn Ansah	DDHS, Dodowa
Mrs. Veronica	Nurses & Midwives Council

KORLE BU TEACHING HOSPITAL

Mr Chris N. Nartey	Director of Administration, KBTH
Dr Annan	Medical Director, KBTH

MADINA HEALTH CENTRE

Dr. Brigitte Gogo	
Mrs. Juliana Okine	Medical Assistant
Mrs. Nunoo-Amankwa	DDNS

MADINA CLINIC

Mrs. Veronica Gyimah-Bota	Medical Assistant in Charge
Mrs. Dorothy Abdey	PublicHealth Nurse

VOLTA REGIONAL DIRECTORATE

Dr.A. Acquah	Regional Director, Volta Region
Augusta Ama Doe	Regional Public Health Nurse
Theo B Osei-Armah	Regional TB/HIV/AIDS/Coordinator
Dennis Gbeddy	Reg. Nutrition Off

Nani Tengey	Reg. Health Info. Off
Donnie K Kulevome	Finance Monitoring
Dr S. T Kwashie\	DD (PH)
A. Igluku-Acquah	DDNS (PH)
A. Asiedu-Ofei	DD (ADMIN)
F. Asare	RDDPS
Doris Quame	PNO (PH)
Anthony Adjavor	RTO (LEP)

REGIONAL HOSPITAL- REVIEW OF 2006 PERFORMANCE

Alex Amenu	D CHSA
Ahorlu Justice	Snr. Acct
Geoffrey R. K. Nyamuame	Medical Supt.

HO MUNICIPAL HOSPITAL

Dr. K. G.Normanyo	Medical Supt.
Simon Y. Dzokoto	Health Information Officer
Godwin Nsubi	Accountant

KETA PHC

Vivian Azizaglo	CHN
Peace R Dedume	Medical Asst.
Charity Ganyo	Midwife
Vida Mamatta	Ward Asst.
Anthony Budu	Orderly (Revenue Collector)
Aglebe Justine	Orderly
Kk Amedeka	Dispensary Asst
Rose Atty	Nurse
R K Agbi	Night Watchman

ANLOGA HEALTH CENTRE

Evelyn Mensah	Student Midwife
Alorbu K Wisdom	Med. Asst SSN
Onolia Olympio	SSN
Christiana Gbekte	SSN
Samuel Egbezualo	Dispensary Asst
Christiana Gobobli	Health Aide
Kumah Annie	Biostatistcian
Bernice Yormewu	Revenue Collector
Philomina Alipui	Orderly
Awuku Yawo	“
Peter Davordzi	“
Janet Akaka	“
Florence Logosu	CHN
Delight Dzihlorwu	CHN

WESTERN REGIONAL DIRECTORATE

Dr. S. Anemana
Ambrose Goker
Esther Pesseh
Judith Brew
Winferd Wunu
Justina Ebule
Barbara Yankey
Kobina Attah

Emma Ampofo
Lucy Ajigbli
Hannah Addo
Charlotte Danquah
Dr Micah

Regional Director, Western Region
Regional Disease Control Officer
Deputy Director Nursing Services
Hospital Matron
Regional Nutrition Technical Officer
Medical Assistant
Pharmacist
Disease Control Technical Officer-
Wassa West District
Regional Training Coordinator
Dep. Dir. Nursing Metrop.Health
District Director of Health- Jomoro

Administrator, Effia Nkwanta reg. hosp.

NZEMA EAST DISTRICT

Abraham Mensah
Dr. Boakye-Boateng
Mrs Hawawu
Harry Nkrumah
Francis Amoako
Perpetual Djan,
Mary Magdelene Arthur
Dr Avotri
Dr. Tachie-Menson

DDHS
Medical Superintendent District Hospital
TBA
Manager, DHMIS
Dep. Chief Med. Ass., Esiana Health C
PH Nurse, Mphoho Wassa East
PH Nurse, Klassa Amenfi East
Dir. Health Services, Sekondi
District Dir. Health Services, Nzema East

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Appendix 4. Suggestions for financial indicators – POW-2007-2011.

The following table includes commentaries on sector-wide indicators as proposed in the next POW.

Proposed finance indicators		Commentary
1	Total expenditure on health as a percentage of GDP	Useful and internationally comparable, but relies on accurate NHA assessments of private expenditure
2	Per capita total expenditure on health	Useful, though same caveat as above. Or define clearly that it is the public expenditure, not private (i.e. take out IGF)
3	Per capita NHIS in reserve	Useful as indicator of financial sustainability, but should perhaps also be complemented by coverage (those with cards, not just registered)
4	Execution rate of GOG and Health fund expenditure for services (item 3) improved	Useful
5	GOG expenditure for services (item 3) for 2007 increased compared to 2006	Useful. Is there a target figure for the 'right' proportion?
6	% of districts that spend at least 1% of District Assembly Common Fund on HIV/AIDS	Interesting information for LG accountability but not critical
7	% GOG budget spent on health	Perhaps specify GoG without IGF and analyse expenditure rather than budget
8	% GOG recurrent budget spent on health	Does this indicator add much to the one above?
9	Proportion of non-wage recurrent budget spent at district level	Still useful
10	% Donor funds earmarked	Still useful
11	% Recurrent budget spent on exemptions	Through MoH/GHS, or through NHIS? See below
12	% of the population including the indigents and other exempt categories issued with ID cards	Needs to be carefully defined – see below

The question of the proportion of the population issued with exemption cards needs to be handled carefully. This is presumably intended to measure an effective social safety net. As currently set up, the NHIS 'exempt' categories include the SSNIT contributors, SSNIT pensioners, children under 18 (with parental membership), the over-70s and the indigent. Of these categories, only the last is targeting the poor specifically. Indeed, the first three are liable to cover relatively well off groups. If all are lumped together, this indicator will give a misleadingly pro-poor picture. If, however, the indicator tracks exemption cards given to the poorest, using a more proactive targeting method, then it will provide genuine insights on the degree of social protection against health care costs

Appendix 5.

5.1. Trends in Infant Mortality Rates (IMR) and Under-fives Mortality (U5MR)

Two child health status indicators are used to measure health sector performance and were evaluated: infant mortality rate (IMR) and under five mortality rate (U5MR). Both of these indicators are also used to measure progress toward the MDG 4 of decreasing infant and child mortality by two thirds by 2015. Significantly, the targets set for health status improvements for POWII, an IMR of 50 and an U5MR of 95 were not met in the most recent survey data available. However, since these measurements reflect mortality during the 5 years prior to a survey, it is more useful to examine such rates over a longer time period, using results from multiple demographic and health surveys.

Since 1988, four Ghana Demographic and Health Surveys (GDHS) have been undertaken, one approximately every five years (1988, 1993, 1998 and 2003). These surveys have thus provided population-based data for determining the IMR and U5MR over a 15 year period. The Ghana Multiple Indicator Cluster Survey (MICS) is another source for IMR and U5MR, and may be undertaken every 2-3 years. It calculates infant and under five mortality rates for the previous five year period, the calculation is based on the Brass method, an indirect estimation technique. Thus, the results of the two surveys cannot be directly compared as they utilize different methods. In 2003, the IMR was measured to be 64 by the DHS; this rate appeared to reverse the 10 year trend of slow but continually decreasing rates from 77 in 1988 to 57 in 1998. Further examination of trends in early childhood mortality based on the 4 DHSs carried out between 1988 and 2003, indicates that postneonatal mortality (those deaths occurring after the first month of life, but before the end of the first year of life) also maintained a continual decline, decreasing by 13 points over the 15 years. In contrast, neonatal mortality (deaths during the first month of life) was relatively stagnant during this period, hovering in the low 40s, with the exception of an 11 point drop in 1998, followed by a 13 point increase in 2003. This rise in the NNMR over-powered the less dramatic decrease in the postneonatal mortality, and resulted in an increase in IMR in 2003. However, an in-depth analysis of the data quality undertaken to ascertain if the 2003 apparent increase in mortality was real, found that the *apparent increase* in mortality in 2003 was the result of *underestimations* of mortality in 1998. In fact, during the last several decades, there has been very little change in the neonatal mortality, hovering in the low 40s. (Johnson, K et al, 2005; ORC Macro, 2005).

The Under 5 Mortality rate measures the number of children who will die before their fifth birthday (0-4 years) out of 1000 live births. It is one of the most robust indicators for child health and is commonly used in major economic studies as a broad indicator of societal development and well being (PRSPs, MDGs etc). Ahmad's et al (2000) analysis of under-five mortality in Ghana over the last 4 decades indicates a steady decline from 1955 to 1998, with an average of 8 percent decrease per quinquennial, despite periods of turmoil and economic demise. Trend analysis of the DHS data over the last 40 plus years also indicates several shifts that have important ramifications for child health and survival, and the related service programs. Increasing urbanisation is a key one; the proportion of Ghana's population living in cities has doubled since 1960. Another significant finding is the substantial improvement in educational levels since

independence, especially in women, though later surveys show a levelling off and even slight decline in 2003. Desire for more children and ideal family size decreased significantly in the 1980s, across all educational levels, but has remained relatively stable since the early 90s. Interestingly, this pattern is consistent with the child survival trends which also, leveled off (stagnating) in the 90s. (Johnson, K et al , 2005).

As noted above, the Ghanaian Demographic and Health Surveys have also shown improvements in infant and child mortality rates between 1988 and 1998. It is only since the 90s that infant and under-five mortality rates have plateaued. Unfortunately, both infant and U5M rates levelled off when mortality was still quite high. Notably, the largest improvement in rates occurred between 1988 and 1993, and has been ascribed to the increased EPI coverage, especially for measles.

In Ghana, as elsewhere, as child mortality decreased, the percentage of U5 mortality due to infant mortality increased, and, the percentage of infant deaths that occurred in the first week of life assumed the greatest influence on the neonatal mortality rate. Thus, in 2003, infant mortality accounted for 75% of the U5MR, and neonatal mortality accounted for nearly 70% of neonatal mortality. Therefore, during this POW, neonatal mortality played a leading role in child mortality and would have to be addressed programmatically in order to decrease infant and U5 mortality rates.

Since the MICS data is the most recent, it is worth reviewing its findings. According to this data, one in nine children born in Ghana will die before reaching its fifth birthday, and the majority (about two thirds) of these deaths will be during the first year of life. The U5MR also indicates the female survival advantage (89 deaths per 1000 live births (LB) compared with 131 deaths per 1000LB for males). Mortality advantages are also seen among children with rural residence (in contrast to the DHS data) and with more educated mothers. Also of importance programmatically are the regional variations in IMR and U5MR, with mortality rates in the Upper West (IMR 114, U5MR 191), being two to nearly three times as high as those in the Western Region (IMR 45, U5MR 66), though regional data must be interpreted with caution given that sampling errors with mortality estimates are large. (UNICEF, 2007)

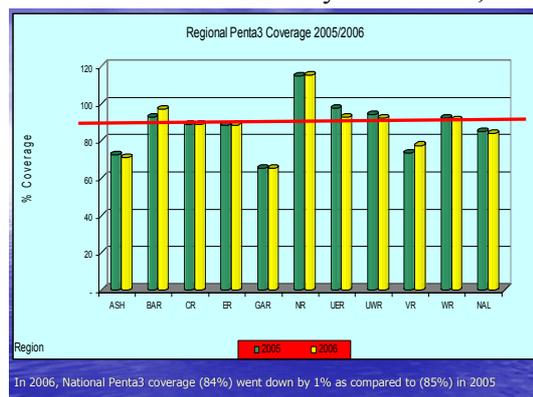
5.2. Progress in Child Health Service Indicators and Regional Variation.

EPI - Pentavalent 3 coverage

Penta 3 coverage indicates the percentage of children aged 12-23 months who have received the third dose of the pentavalent vaccine which includes protection against diphtheria, pertussis, tetanus, *Haemophilus influenzae* Type b and Hepatitis B. The high target of 85% was almost met (84%; MICS-2006 found 83.5% coverage). Note that the national EPI objectives were met since they called for at least 80% coverage for all vaccines in 80% of Ghana's districts by 2005. However, significant regional variations are seen in both the MICS data and programme data; although not necessarily in the same way.. Based on EPI programme data, 3 regions: Ashanti, Volta and Greater Accra have consistently been the lowest performing regions over the last 2 years, with Penta 3 rates ranging from 65% (GAR) to mid 70% (AR 73% , 71% and VR 73%, 78% respectively for 2005 and 2006). However, MICS data for 2006 found VR to be the lowest performing region with 64% Penta 3 coverage, but this was based on unweighted cases.

High performing regions in 2006 per the MICS were Upper East (92.7% based on unweighted cases), Ashanti (91.9%) and Brong Ahafo (89.4%). Programme data showed most regions holding similar performance rates in 2005 and 2006. Looking over the course of POWII, immunisation performance data has been consistently high; though there were decreases in coverage of childhood antigens during 2003 and 2004, improved performance was noted across all childhood antigens during the last 2 years.

Trends in DHS data from 1988 reveal significant gains in the percentage of children aged 12-23 months who are fully immunized, increasing over 20%, from 47% in 1988 to 69%



in 2003. Although urban children continue to hold an advantage in coverage over rural children, the difference is smaller now than it was initially; between 1988 and 2003, rural coverage grew faster than urban. During this period, the association between higher maternal education and early childhood immunization rates continued, though childhood coverage levels have increased across all subgroups of maternal education.

EPI - measles coverage

Measles coverage indicates the percentage of children aged 12-23 months that have received measles vaccine (actually MMR which protects against measles, mumps and rubella). Again, although the 2006 target of 90% was not met, a slight increase over 2005 performance was made, achieving national measles coverage of over 85%. Over the course of POWII, measles coverage has consistently reached 80% or above except in 2004. The 2006 MICS found 85.4% measles coverage nationally, with regional variations (lowest rate of 68.4% in Central Region, but based on unweighted cases, and highest in Ashanti Region, 95.4%). Urban residence, higher maternal education and wealth continue to confer advantage in terms of coverage. Programme review data revealed a 3% coverage increase in 2006, reaching a coverage rate of 85%. Regional variation revealed Greater Accra (66%), Ashanti (74%), and Volta (75%) to be the lowest performing, with only Volta showing gains over its 2005 performance.

% PNC coverage

Given the influence of neonatal deaths in both IMR and U5MR, this process indicator has particular value as an indicator of sectorwide child health performance. The indicator shows the percentage of newborns who receive a postnatal visit during which the well being of mother and infant can be attended and the mother can be counselled how to best care for her newborn. Because the risk of newborn death is greatest in the first 48 hours after birth, it is critical that the postnatal visit occur within that window, for it to effectively identify newborns that need urgent attention. Thus, the time and content of the visit are very important, especially from the perspective of the newborn's wellbeing. The 2003 DHS assumed that all institutional deliveries received post natal care, and hence surveyed only those mothers who had delivered outside of institutions. Unfortunately, that is not always the case; even when mothers and infants remain in the facility, attention to the newborn may be minimal.

In 2006, %PNC coverage was nearly 56%, increasing about 3% from 2005, but still not achieving the target of 65% coverage. Over the course of POWII, this indicator has not varied greatly, ranging between 53 and 56% coverage. The 2003 DHS (with the restricted survey noted) found that 1 in 4 mothers delivering outside of facilities received PNC within 2 days of delivery, 1 in 10 within 3-6 days after delivery, and 1 in 8, 7-41 days post delivery. Most significantly, more than half of the women who had noninstitutional births did not receive *any* postnatal care. There is little variation by mother's age at birth or urban-rural residence, although there are large regional variations, with mothers in Greater Accra, Volta, Upper East, Upper West less likely to receive PNC than mothers residing in other regions. It is not clear if Greater Accra "disadvantage" is due to small numbers of non-institutional deliveries, but may also be related to increasing numbers of urban poor and emerging urban access issues for this group (where geographic proximity is not the only determinant of access). As with several other child health variables, mothers with education and in the middle or upper wealth quintiles are more likely to receive PNC than their counterparts, as are mothers of second and third order births.

U5 malaria CF rate

The number of deaths in children under 5 years who are treated for malaria in a health care facility out of the total number of children under 5 years receiving treatment for malaria in that same institution over the same time period (times 100) is a potent indicator of the quality of institutional care for severe childhood malaria. However, caution must always be used when interpreting institutional case fatality rates, since patient characteristics and care-seeking also influence these rates. The review team did not receive the 2006 data for this indicator, but from the Malaria Programme's Annual Performance Review, a gradual decrease in CFR is shown each year from 2.9 in 2002 to 2.1 in 2006, effectively achieving the target of 2. Variations across regions do exist, with CFRs over 3 in 3 out of the 5 regions reporting in 2002. In particular, steady progress has been made in decreasing U5 CFRs in Upper West and Brong Ahafo, while Northern and Upper East have suffered increased fatality in 2006, after having made some progress in previous years. As will be discussed more in the next section, this may not be the most useful indicator to gauge sector performance; it is not even one of the programme performance indicators in the Rollback Malaria Strategic plan for Ghana.

5.3. Recommendations for Child Health Indicators for POW 2007-2011

In general, the review team agreed that the current health sector indicators for child health (as a group) do not entirely capture the overall sector performance in child health, nor do they serve as sensitive markers of changing performance, alerting decision-makers for the need to analyze particular services or performance. Furthermore, they do not serve as effective guideposts to the attainment of MDG 4 goal of decreasing U5 child mortality. The next paragraphs will briefly review the strengths and weaknesses of the current indicators, and culminate with recommendations for POWIII: 2007-2011 sector-wide indicators for child health, indicators that will guide progress towards MDG 4 as well as performance of the POWIII.

One of the strengths of the current indicators is the inclusion of health status (impact), as well as programme or process output indicators of delivery. Also included are indicators

aimed at depicting the distribution of health resources. However, within each of these categories, optimal indicators have not been selected. Ideally the indicators need to be aligned or identical with indicators for MDG 4, as well as with the priority lines of work and strategies outline in POWIII

Indicators on Child Health Status

- Both IMR and U5MR are included and should be retained as they are robust indicators as well as being indicators used for MDG4 for Ghana and hence, will be collected anyway. However, Neonatal Mortality Rate (NMR) should also be included given that over two-thirds of Ghana's infant mortality takes place during the first month of life, and that the NMR has not shown any real improvement since 1988. Furthermore, at this time, infant mortality accounts for 75% of the U5M in Ghana; thus neonatal mortality is also influencing and contributing to the stagnation of U5M rates.
- In order to reach the MDG goal of U5MR= 40 in 2015, a decrease in U5MR of approximately 4 - 5 % per year will be needed (U5MR / 1990: 155). Given the role of neonatal mortality, and especially early neonatal mortality, it will be essential to better understand the causes of newborn mortality. In this regard, neonatal death audits should be started and monitored, along with ongoing maternal death audits. Furthermore, the POW must include actions/interventions specifically designed to decrease neonatal mortality. Hence, NMR must be measured directly to most accurately measure the effectiveness of our activities.

Indicators on Child Health Service Delivery

- Service delivery indicators should take into account local epidemiology or burden of disease as well as evidence-based interventions addressing the most common conditions or causes of mortality. In this regard, indicators reflecting the quality of delivering the chosen intervention, or the scale/coverage of the intervention are optimal. Depending on the delivery system to reach infants of children with the key interventions, the indicator might measure the delivery at various levels of the system or through particular modes of delivery (eg facility based – primary level, hospital level, community based or better yet, captures all modes of delivery. Finally, indicators might be aimed at either preventive or curative interventions.
- Three out of the 5 current indicators in this category are linked to immunization activities. While this programme is an exemplary one, and delivers evidence-based interventions well proven to effect mortality, it would be more effective to retain one and identify indicators associated with other evidence-based interventions addressing neonatal causes of mortality (or under 5 mortality). EPI coverage unfortunately is not indicative of how well the remaining essential CH interventions are being delivered, or the effectiveness of the system to reach children with these other interventions (at least at this time when they are not linked) AFP non polio is an important EPI indicator, especially for eradication of polio but is not key in the current or next POW, or in achieving MDGs. Furthermore, given current immunization coverage in Ghana, increasing coverage will not greatly effect IMR, though obviously significant declines in coverage would have serious adverse affects. When and if new antigens are added with additional public health impact on common causes of infant and child mortality, immunization indicators should be reviewed again.
- If one focuses on the most common causes of newborn death (birth asphyxia and newborn infections), and then considers effective interventions for these conditions, as well as recognizing that the majority of neonatal death occur within

the first 48 hours after delivery, one might choose either % of newborns successfully resuscitated, or %PNC visits (for all deliveries, not only those infants born outside of facilities). Another process indicator along these lines might be % of neonates with newborn infections, treated according to national guidelines.

- Shifting attention to the burden of disease underlying U5 mortality, and the coverage of evidence based or proven interventions provides other options for good indicators measuring service delivery. For these interventions to reduce mortality, they need to be delivered at scale, reaching 99% coverage of the target population, and with quality so that their effect is delivered. Hence, indicators reflecting quality or coverage scale are useful. The current set of indicators does not include measurement of the most effective clinical care interventions: ORS, antimalaria treatment; or antibiotic treatment of pneumonia. Such indicators would have to be collected through community-based surveys, though health centre data (including CHPS zones) could also be used to monitor between cluster surveys. MICS are planned for every 2-3 years, and do collect this data, but it would be easier to simply add this indicator to the annual Malaria Control Programme surveys. Another proxy indicator might be % of health centres with at least two trained IMCI providers, since IMCI includes these interventions.
- Given that malaria is the main cause of morbidity and mortality in under-fives, and that the National Malaria Control Programme already collects a roster of annual data, it makes sense to choose one or two indicators linked to malaria. Currently, the malaria indicator for children (U5 case fatality rate) is one reflecting clinical care, presumably inpatient treatment for serious malaria infections. However, since most children will require and hopefully receive community-based treatment or treatment in a health centre, it would appear that the Rollback indicator of % U5 with fever receiving antimalarial treatment within 24 hrs would be both practical and reflect services provided through health centres, as well as community-based modes.
- Likewise, a well-established indicator of prevention, such as ITN presence in the home (or better yet, use/slept under by <5 y) is already being collected by the Malaria Control Programme on an annual basis, and would thus be a practical and technically sound choice.
- The current roster does not address interventions aimed at the two conditions which cause over half of under-five deaths, diarrhoea and pneumonia (except as captured through coverage of measles and pentavalent Hib vaccines). Thus, well-tested indicators capturing treatment, either use of ORT during diarrhoea, or treatment with antibiotic for pneumonia are two other suggested indicators. Both of these could capture service delivery at facilities and communities.
- The current child health indicators do not include any measurement of the most effective preventive interventions delivered by the system: breastfeeding, ITNs or ORS/zinc. These interventions have been proven to avert the highest % of deaths in young children when effectively delivered at scale.
- One other type of indicator might be useful to capture health promotion and behaviour change messages in child health and nutrition: % of subdistricts or CHPS zones which performed x outreach sessions focused on Essential Nutrition Actions (or might substitute, delivered standardized integrated newborn feeding messages etc). Clearly this type of an indicator could be very powerful if used across community-based organizations and outreach sites.
- It is also notable that the current sector indicators for Reproductive Health services do not include neonatal indicators except for PNC coverage; the set could include an indicator that captures NB interventions eg % newborns receiving care to prevent hypothermia (or % Newborn receiving essential

newborn care – immediate breastfeeding, wrapping and drying to prevent hypothermia, cord and eye care, BCG, polio)

- Several of the existing clinical care indicators could be modified to also include or capture specific paediatric populations, thus serving multiple purposes.

Indicators for Levels and Distribution of Health Resources for Children

- With the exception of the CHPS indicator, which we would suggest retaining, most of these indicators focus on funding or budgetary issues and as currently defined are not directly linked with delivering child health services. However, several could be modified to identify more concretely the proportion of funds used for child health interventions/services. Alternatively, one might develop a new indicator to capture children benefiting from national health insurance (such as the % of pediatric OPD visits covered by IHIS)
- Finally, indicators should be considered which capture intersector linkage; private sector involvement, effective targeting of poor children, or services to urban poor children. None of the current indicators address equity, with the possible exception of the ones addressing INHS and number of CHPS zones.
- Indicators for 07 should capture HIRD activities

5.4. Challenges and Lessons Learned in Child Health through POWII

Child Health delivery is fragmented without a clear nidus of responsibility and accountability

CH Services, curative interventions, can be delivered at community level, integrated with other largely preventive interventions curative, as well as in facilities. In fact, the most effective CH interventions should be delivered through multiple programs or service providers, at both community and facility levels. Several of these interventions, ITNs and antimalarial treatment of fever, as well as immunizations are largely delivered through Communicable Disease Control programs; others are closely linked to the Preventive Health Units of Nutrition, Health Promotion and Reproductive Health. No other service has such an effective array of interventions, delivered through so many diverse programs and strategies, at community, primary health facility and hospital levels. Thus, though many programs “support” child health in name, accountability and responsibility are diffused which can be problematic, if no clear agent arises to accept responsibility. Another lesson learned, which mirrors the programmatic “straddle” described above, is that Child Health Services, to be maximally effective, require integration of public health and clinical care.

National Child Health priorities are not translated into concrete actions at district, and community levels

A rapid review of a sample of district plans, as well as multiple discussions with programmatic key informants and several DHMTs found that many districts do not translate national priorities in child health to local district or community actions.. Furthermore, community-based activities are carried out through diverse partners, with little attention to ultimate coverage of the at risk population of children under 5. This may be changing in HIRD districts, but it is too soon to tell. In general, regional and district plans for child health appear to be largely limited to components within vertical programmes.

MNCH continuum of care needs strengthening and will be essential for improving neonatal survival

The continuum of care between mother, newborn and infancy can be strengthened. Newborn care has been neglected, “lost” between RH and CH, yet NB forms a nexus between RH and CH, which necessitates that continuum needs to be planned across both programs. With the new RH Policy in place, and a new Child Health policy being planned, now is the prime time to programmatically assure this nexus of care is build and sustained.

Lack of an updated strategic policy and implementation framework is hindering delivery of CH interventions and lessens impact

The Child Health Policy was written in 1999 and has not been updated. It thus preceded the focus on MDGs, and lacks new technical interventions in child health like zinc and low osm ORS, new vaccinations, and birth spacing. Since its conception, IMCI has been revised to include newborn and HIV in some countries. Furthermore, it does not address new developments like CHPS compounds or take into account the NHIS. The Policy was developed before the analysis of evidence-based interventions, the importance of full coverage for mortality impact, or the rise of globally funded vertical programs. Thus, it does not provide overarching guidance for delivering child health interventions through diverse programs and community-based channels.

Since the challenge is delivery, the lack of a clear Implementation Framework with expected coverage targets and performance indicators grounded in the core interventions is a serious impediment to scaling up. Furthermore, an abundance of implementation strategies exist, emanating from diverse programs, but no roadmap to explain how they relate, build congruencies and synergies, avoid duplication and conflict, and assign clear responsibility for implementation at different levels in the delivery system.

Implementation of IMCI, the standard of care for common childhood illnesses, has stalled.

Until recently, outside of immunization and malaria programme strategies, the main CH strategies have been: IMCI and C-IMCI; along with Essential Nutrition Actions and Community Based Growth Promotion (CBGM). Facility-based IMCI was introduced in 1998; community-IMCI in 2001. Over the last 4 years, with the decrease in earmarked funding for training, IMCI implementation has stalled; districts have been slow to assume these costs, even though IMCI is the standard of care for treatment in all GHS health centers. At this time, a total of 1067 health workers have been trained in 6 of the 10 regions, but information is not available regarding their distribution or coverage per facility, district or region. In those districts which did not “pick up” IMCI, a CH gap is emerging, as interventions for case management of diarrhoea or pneumonia are not emphasized.

Even when DDHSs recognized the value of IMCI, they were loath to use limited district funds for an expensive training, which also removed staff from their facility for several weeks. A 6 day short course was tried, but was not received well by students or instructors, both stating in sufficient time to assure mastery of new skills and concepts. Another alternative training approach has entailed dividing the course into components, which allows onsite practice, before returning to the training venue for the next

component. But, for now, the standard 11 -day course training continues, with the 6 day course mainly used to orient physicians.

As IMCI implementation was limited in scope and slow, CH interventions gradually became focused more within Public Health, in more vertical disease control programs like Immunizations and Malaria Control. But integrated clinical case management of common childhood illnesses is rarely addressed in these programs; emphasis is on their disease specific component.

Essential Nutrition Actions, as part of IGWM may not be well understood. Coverage of ENA has not been measured. ENA messages are relayed through multiple types of community-based providers and organizations, but not necessarily in a consistent or coordinated manner. A coherent communication and behavior change strategy is needed to maximize synergy across programs, and focus delivery on a limited set of core nutrition messages, targeting high risk infants up to 2 years of age.

Outside of vertical programs, Child Health performance indicators are not measured.

The concept of coverage seems to be lacking, as it applies to child health interventions outside of malaria and immunizations. Programme indicators for pneumonia, diarrhoea are not routinely collected. IMCI tends to be reported in terms of numbers of service providers trained, not in terms of % health facilities with at least two people trained (and working in CH). Follow up data is scarce and the use of data for planning quality or advocacy for CH seems weak.

Scaling up through community-based delivery of effective CH interventions,

Effective delivery at scale requires a compact package of proven interventions. Prioritizing a limited set of core interventions, such as: ORS, BF, ITNs, CF, Antibiotics for Pneumonia, Antimalarials, Antibiotics for Dysentery, Vit A, Measles Vaccination , and delivering them to as close to 100% of the target population as possible could avert 60% U5 deaths. If one adds clean delivery, NB temp management, IPT, the package could avert 68% of U5 deaths. But the key is reaching all the catchment children. Priority child health interventions aimed at the main killers: pneumonia, diarrhoea, malaria and malnutrition cannot be limited to facility based delivery. This is especially critical in Ghana, where as many as half of the needy population will not have access to the GHS service site. Hence, life-saving interventions like ORS and antibiotics (strategic question: is it feasible to broaden the range of prescribers of antibiotics, beyond the level of nurses?) must be delivered at community level, albeit with careful supportive supervision and continuous monitoring. Focus:

- Use existing community based organizations/structures to deliver selected interventions
- CHPS can become the cornerstone of Community -based CH treatment, but must have rapid delivery strategies as temporary fall-back scenario's, while slowly building a sustainable system
- Targeting has an important function and is a critical planning task to successfully scale up interventions to reach high risk or underserved populations. District capacity must be developed to tailor CH delivery strategies to local context, undertake or lead facility and service mapping as part of the district or

community profile. More effective targeting of interventions toward high risk or underserved subpopulations is needed.

- As more CH services are delivered outside the health system, the need for a unified CH BCC strategy rises (Unified messages despite multiple delivery channel; agreed coverage targets and performance indicators for community based public health work).

5.5. MDG 5 Analysis – Trends in Maternal Mortality.

Published MMR Estimates for Ghana

Published estimates of MMR			
MMR	Year	Area	Source
214	c. 1982	Ghana	1992 National Maternal Mortality Survey
740	1990	Ghana	WHO, UNICEF, UNFPA model estimate
590	1995	Ghana	WHO, UNICEF, UNFPA model estimate
540	2000	Ghana	WHO, UNICEF, UNFPA model estimate
245	c. 1982	Central Region	1992 National Maternal Mortality Survey
269	c. 1985	Tano and Kintampo, Brong-Ahafo Region	Smith et al 2001
758, 857	c. 1990	Kasena-Nankana, Northern Region	Ngom et al 1999
637	1995	Kasena-Nankana, Northern Region	Ngom et al 1999
734	c. 2002	Central Region	IMMPACT

5.6. Recommendations for Maternal Sector-wide Indicators for 2007-2011

The following improvements are recommended for the sector wide service output indicators:

- As antenatal rates are already high, the use of the indicator “at least 4 antenatal visits” should be used at least at district and regional level, as 4 antenatal visits provide improved benefits from antenatal care for both mother and child. The data is already being collected at district and regional level, and being reported nationally in the RCH reports. The use of “at least one antenatal visit” should be retained at the national level to ensure no adverse trends are developing with the slightly declining rates.

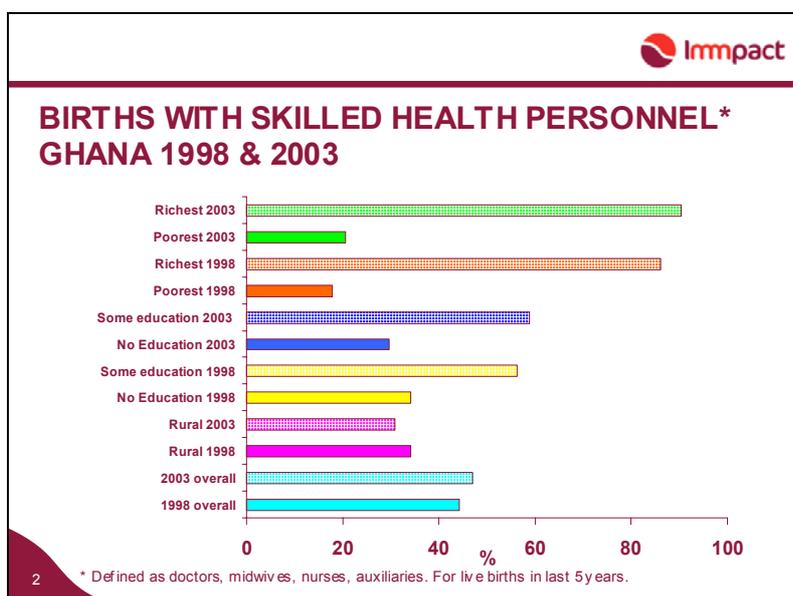
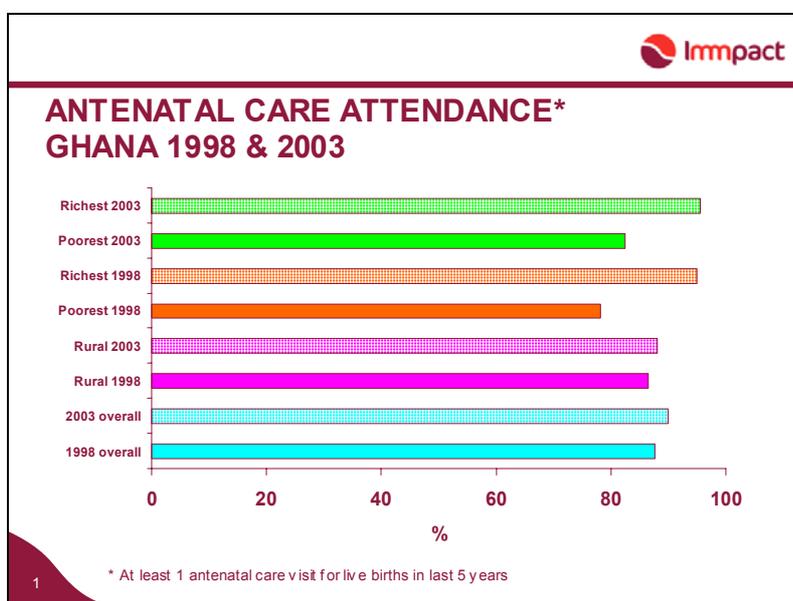
- Improve the quality of the data on skilled attendance at delivery by re-clarifying the definition of the indicator. It is recommended that the use of the phrase “supervised deliveries” is stopped and instead the term “proportion of deliveries with skilled health personnel” adopted. Standardisation of how to calculate the indicator, using the performance guidelines (GHS 2006), with attention to the denominators used, should be made across districts, regions, programme and sector reporting.
- Use DHS data for disaggregated analysis by wealth, education and rural urban residence in order to map the reach of services to neglected groups.
- The use and interpretation of maternal audit data should be expanded. To use audits in this way,
 - Sensitise and train high level managers (or establish and train special audit teams) in the districts and regions to interpret trends and link qualitative information from audits to provide explanations for trends in the IMMR.
 - Develop an analytical format to improve reporting and interpretation of audit data (for example, by using the three delays model, or maternal death assessment forms from the South African confidential enquiries into maternal deaths (NCCEMD 2005, Lewis 2004) or by using local adaptations of confidential enquiry assessment forms (Immpact 2007)
- As a whole, the service provision indicators capture coverage of antenatal, post natal and delivery services. Quality and met need for emergency care is less well captured. The comprehensiveness of the sector wide indicators for maternity service provision can be enhanced by the addition of the following indicators:
 - Population based institutional Caesarean section rates (CS done in hospitals to expected births), a proxy for access to emergency obstetric care. The generally accepted guideline is that population based CS rates should fall between 5-15% of deliveries (UNICEF/UNFPA/WHO 1997). Ghana’s levels have risen from 5.6% in 2002 to 6.9% in 2006 (Aboagye 2007) and as the rates approach 10% there is generally a need to examine more closely the reasons for the increase, for example, through maternal death audit. Data is already being collected in hospitals, but will need a slight shift in use of the denominator from institutional births to population based expected births.
 - Haemoglobin levels to check for prevalence of anaemia in pregnant women as a proxy of quality of antenatal services and to track the effectiveness of antenatal care to reduce deaths from post partum haemorrhage in severely anaemic women. This indicator is already being collected, but data availability is compromised by limited availability of means to measure haemoglobin levels in the antenatal clinic. It is essential that all antenatal clinics have sufficient means to measure haemoglobin levels. The question of the feasibility of this proposal is related to the relative priority placed on the quality of antenatal care. If quality is not high, the efforts to have high coverage will be undermined as the effectiveness of antenatal care will be limited.
 - Quantification and coverage of abortion care services, because the complications of abortion contribute to 12% of maternal deaths (Aboagye 2007), little information is currently available, and also because there are some new strategies starting up to improve abortion services, as described in the section on scaling up of maternal mortality reduction strategies. It is not clear what the best indicators are to capture performance in this area. At this early stage an indicator which reflects the interventions planned is advised, such as percentage of facilities

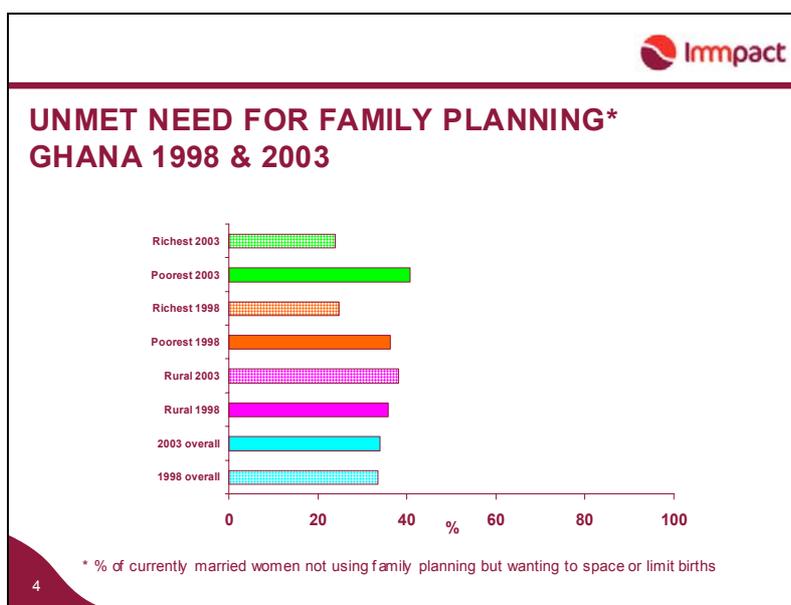
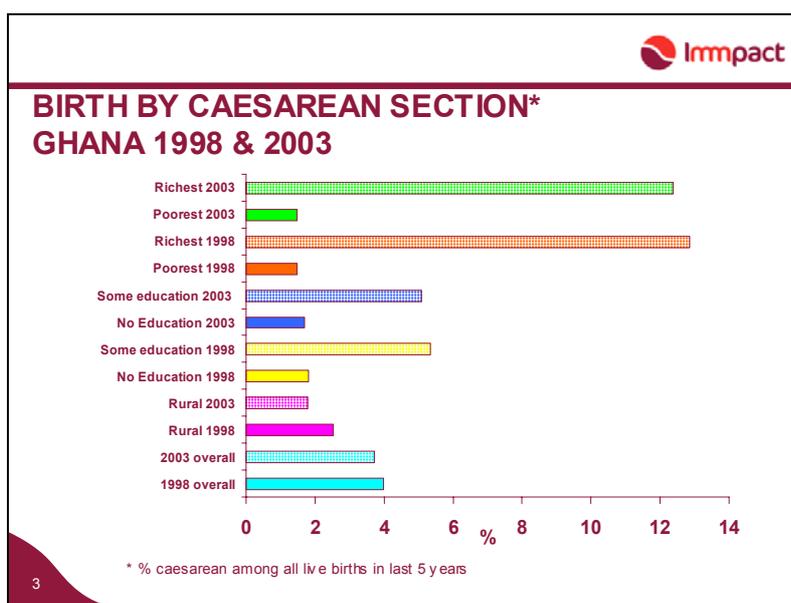
offering abortion and post abortion care services, or numbers of abortion and post abortion related procedures carried out, or the annual institutional abortion rate (numbers of abortions per 1000 women aged 15-49 years).

These indicators are suggested as priority indicators for sector wide monitoring, so the list has been kept to a minimum. A programme specific assessment of indicators was not conducted as part of this review although most key indicators which are feasible to collect within a routine system are already being reported within the RCH annual reports.

5.7. Data showing inequities in access to maternity services in Ghana

The figures below show data from demographic and health surveys from Ghana in 1998 and 2003. Disparities in antenatal care are relatively small but more pronounced between the richer and poorer groups. However, disparities get larger when looking at intrapartum care, such as births with skilled health personnel and birth by Caesarean section. For skilled deliveries, differences between the poorer and richer groups are almost fourfold, while a smaller disparity also exists between the educated and less educated. For CS, the differences between groups are even larger. The CS rate falls far short of the minimum level of 5% for the poorest, those with no education, and the rural. Amongst the rich and well educated, CS rates are close to the maximum recommended levels. Although the disparities are not very large in unmet need for family planning, the patterns related to poverty remains.





5.8. Progress in POW Implementation on Nutrition.

The 2006 sector plan of MOH for the nutrition programme is focused on certain key activities and implemented mainly by the Ghana Health Service as integral plan of the POW. Even though other routine activities which all contribute to the improvement of child mortality are also implemented by the GHS, these are not captured as integral part of the POW but are however reported by the districts according to GHS guidelines.. A large number of NGOs also implement activities that are not captured in GHS reports. The following priority actions were planned for 2006:

- Disseminate and undertake continuous advocacy for Implementation of the 'Imagine Ghana Free of Malnutrition' strategy;

- Procure and distribute weighing scales and height measures for nutritional assessment and surveillance;
- Collaborate in the enforcement of the Food and Drugs Amendment Act 1996, Act 523;
- Institutionalize Vitamin A Supplementation (VAS) to children as part of routine service provision;
- Implement the Global Alliance for Improved Nutrition (GAIN)/GHS strategy for fortification;
- Work with the Attorney Generals Department to amend the food fortification law to cover other foods; and,
- Intensify support supervision and monitoring to regions.

Activities carried out

1 Disseminate and undertake continuous advocacy for Implementation of the 'Imagine Ghana Free of Malnutrition' strategy

A roll out plan for dissemination/sensitization and advocacy to policy makers (Ministers, Directors/Technocrats of MDAs), Development partners, regional and district level policy makers and managers was developed. Presentations were made to create awareness and advocate for support/adoption at the national level for the following groups: i) the Population Seminar of the Population Association of Ghana, ii) the Regional Conference on the Plight of the West African Child and Progress Towards Achieving The Millennium Development Goals by Child Project Africa, iii) the 14th Annual Conference of The District Directors of Health Services Group iv) meeting with the Dutch ambassador on the School Feeding Project v) First 2006 GHS Senior Managers Meeting held in Takoradi, This advocacy is yet to go beyond the national level.

One of the positive impacts of this advocacy is the attempt being made by the World Bank to develop a nutrition programme based on the strategy.

2. Procure and distribute weighing scales and height measures for nutritional assessment and surveillance

An assessment on availability of weighing scales in the country has been made and a proposal for the purchase of scales for health facilities has been submitted to the Public Health directorate for consideration. UNICEF has provided adequate weighing scales and height measuring instruments (microtoise)(???) for surveillance in the country

3. Collaborate in the enforcement of the Food and Drugs Amendment Act 1996, Act 523

As part of the effort to enforce the Food and Drugs Amendment Act 1996, Act 523 a mop-up exercise to iodize all non-iodized salt in the markets was carried out. This was followed by training of police personnel on testing of salt. The result of this training has led to monitoring of the movement of non-iodised salt through road checks and has led to the occasional seizure of non iodized salt.

4. Institutionalize VAS to children as part of routine service provision

Awareness has been created in districts to review and give Vitamin A capsule to children 6-59 months who contact any health facility. EPI programme distributes Vitamin A capsule to regional and district stores alongside vaccines. Reporting on vitamin A capsule distribution has been institutionalized and was an integral part of the measles campaign as

well as Child Health Week celebrations. Policy and guidelines on supplementation to lactating women have been disseminated to regions. This is designed to be a routine activity which would not require extra financing from the health sector. Supply of the capsules to Ministry of Health facilities would be through the EPI vaccine distribution system. However, efforts would have to be made to include all private maternity facilities to comply with this directive and would require financing for advocacy, training and dissemination of guidelines.

5. Implement the GAIN/GHS strategy for fortification

The National Food Fortification Alliance (NFFA), the coordinating body for food fortification strategy continued to hold a series of meetings during the year. Key issues discussed included the training of monitoring agents and other key stakeholders, baseline survey and finalization of monitoring and evaluation plan. The subcommittee of the NFFA finalized plans, and developed standards for premixes to be used in the fortification of wheat flour and vegetable oil.

Following a second appraisal mission to the country, arrangements were finalised leading to the signing of grant agreement with the Executing Agency-The Food and Drugs Board (FDB) for a grant of \$US 1,808,028 from The Global Alliance for Improved Nutrition (GAIN) to set the stage for the start of fortification process. A project management team has been established at FDB and a project manager identified.

6. Work with the Attorney General's Department to amend the food fortification law to cover other foods

The work on amendment of existing Food and Drug Act, 1996, Act 523 to include fortification was completed and the draft Bill has been submitted for cabinet approval.

7. Intensify support supervision and monitoring to regions

This activity was not undertaken due to lack of funds. The reason given for this was that there was a general decrease of funding for activities depending on health fund and GOG budget support and was designed as a vertical approach.

Other activities

Apart from the priority activities outlined for 2006, a variety of initiatives including promoting Infant and Young Child Feeding (IYCF), supplementary feeding and reducing micronutrient deficiencies through salt iodisation, vitamin A distribution to children 6-59 months of age and anaemia control through de-worming of children have been implemented. These are mainly activities that have direct funding from donors such as UNICEF, World Food Programme (WFP), through their multi-year programme support and running parallel to the POW. They are implemented as part of the GHS strategy to reduce the level of malnutrition in the country:

Infant and Young Child Feeding (IYCF)

The aim of IYCF Strategy is to strengthen advocacy and IEC/BCC on infant and young child feeding in order to reduce child malnutrition. The following key activities on breastfeeding and complementary feeding were undertaken:

- A strategy document on infant and young child feeding has been developed for a stakeholder consensus building workshop pending funding.

- A media campaign on breastfeeding and complementary feeding has been initiated in collaboration with Ghana Sustainable Change Project (AED/USAID) to cover 30 districts.
- Training of 75 Technical Officers (Nutrition), Public Health Nurses and Midwives from all 17 districts in Eastern Region on Infant and Young Child Feeding was undertaken to operationalize the Essential Nutrition Actions following the development of wall charts.
- Integrated ENA principles High Impact Rapid Delivery (HIRD) approach of GHS to reduce MDG 4 and 5 and the planning process in Central and Upper East regions.
- Enforcement agents from FDB, Environmental Health Unit of MLG&RD and staff of GHS were trained in the monitoring of the Breastfeeding Regulation 2000 (LI 1667)
- Health workers from Central, Western and Volta were regions trained on HIV and Infant feeding counseling

Community Based Growth Monitoring and Promotion

Following the successful end of the pilot phase of the World Bank supported Community Based Nutrition and Food Security Project efforts were made for its adoption through dissemination at Senior Managers Meeting to sensitize Regional and District Directors of Health Services. The project trained community volunteers to deliver a package of interventions through Community-based Growth Monitoring and Promotion (GMP) and also collaborated with the Ministry of Agriculture to promote community demonstration gardens as well as backyard gardens was implemented forty communities in four districts. Results indicated that underweight was substantially reduced in all the beneficiary communities. Even though there are financial implications for sustaining the activities involved, the integrated nature of the project makes it one of the most effective ways of reducing underweight and therefore contributing to the reduction of child mortality. Health workers in UNICEF focus districts in the 3 northern regions and health agents for PLAN Ghana operational districts (Manya Krobo, Tumu, Wa and Efutu Awutu Senya) were trained on Community based growth monitoring and promotion using the protocols developed during the pilot phase.

Scaling up of Supplementary Feeding Programme

This is a WFP supported programme which has been implemented for several years in the three northern regions of the country covering 194 communities. 160 new proposed communities as part of the WFP support to the health sector have been sensitized out of which 95 became operational by December 2006. Community Health Nurses, CHPS Compound Nurses, Nutrition Education Feeding Centre Attendants/Assistants and CBOs in 14 districts in the 3 Northern regions were trained in Growth Promotion.

Iodine Deficiency Disorders (IDD) Control

The main control strategy which also run parallel to the POW and supported mainly by donors is Universal Salt Iodisation. The target set was to increase household consumption of iodized salt from 74.1% (in 2005) to at 90% or more by end of 2006.

Key Activities Implemented:

- IDD Communication materials comprising new iodated salt logo and slogan, posters, car stickers, leaflets/ 'call to action' (for media men, policy/decision makers, traditional and religious leaders and salt traders), jingle for radio and TV and a TV documentary were launched. Follow up discussions awareness were conducted on radio and TV.
- A sub committee The National Salt Iodization Committee and tasked to explore the opportunities for producing locally appropriate/affordable iodisation machine.
- Results of the Multiple Indicator Cluster Survey 2006 indicate that a third of the households surveyed, while 1 in 5 used salt not adequately iodized. However, 2 in 5 household were using non-iodized salt. Wide regional variations were noted with the salt producing areas being among those not using iodized salt.
This programme is funded by partly from the health fund and partly donor funding.

Anaemia Control

The objective of the anaemia control programme which is part of the GHS nutrition strategy is to reduce the prevalence of anaemia in women and children by 25% in 5 years
Activities Implemented in 2006:

- Radio spots on anaemia control in pregnancy in local languages- Ga, Akan, Ewe and the northern languages were developed and aired on 16 Fm stations nationwide. They were also distributed to regions and districts for use on mobile vans, GHS vehicles fitted with PA systems/health facilities, by music vendors at lorry stations in addition to the local Fm stations.
- A dissemination meeting on the use of Micronutrient Sprinkles in Anaemia control in Young Children was held in collaboration with the Kintampo Health Research Centre and an Advisory Group formed to develop a proposal for consensus building and adoption of the use of sprinkles nationwide.
- Guidelines for de-worming in school aged children were developed in collaboration with SHEP-GES and UNICEF. De-worming as a control strategy for school aged children was piloted in 4 schools in Ga East and Tema Districts of Greater Accra Region in collaboration with the School Health Programme-GES, Child Health-RCH, Disease Control Unit of GHS and The West African Centre for International Parasite Control (WACIPAC).

Detailed Recommendations on Nutrition, complementary to those in the core text of this report:

1. Establish a permanent technical body which would be responsible for ensuring that the various sectors play their roles in the achievement of nutrition goals and objectives in the country. This is important since achieving the objectives of addressing malnutrition problems goes beyond health and is also designed to ensure sustainability. Representation on this committee should be at a level not lower than the Technical Director of a Ministry or an agency.
2. Concentrate activities on the pregnant women and children under five years to ensure the reduction of child mortality rates. Particular emphasis should be on children under two years since damage done during this period is largely irreversible.
3. Adopt and expand a community-based approach to deliver services directly related to health and nutrition outcomes (e.g., promoting child growth through

behavior change communication (BCC) at community and household levels through the use of community based health personnel where they exist, as well as civil society organizations and the use of national and local champions to advocate for nutrition actions.

4. While implementing the priority regenerative health activities of the Ministry of health, efforts should be made to mainstream activities into relevant programmes of the GHS to ensure uniformity of messages through the development and use of common educational material.
5. Use the planned review of the “Policies and Strategies to address Child health” document should give an opportunity to address current trends in implementation of nutrition programmes and human resource issues as well as implementation arrangements.
6. Undertake advocacy visits to Districts aiming at putting nutrition firmly on the agenda of district assemblies.

End-notes

¹ That does obviously not mean that other categories do not capture some of the poor (see chapter 7).

² During this review, the quality / appropriateness of target setting for 2006 was not assessed. TORs for future reviews might include this item, since the overall 'judgement' of performance depends not only on achieving targets, but also on the feasibility to achieve them.

³ . Effective delivery at scale will require agreement on a compact package of proven interventions: ORS/zinc, exclusive breastfeeding, complementary feeding, use of insecticide-treated bednets, antibiotics for pneumonia, rapid treatment of fever within 24 hrs with an effective antimalarial, antibiotics for dysentery, Vitamin A supplementation and timely vaccination against preventable diseases, especially measles and Hib , as well as delivering them to as close to 100% of the target population as possible. Delivery of this package could avert 60% U5 deaths. If one adds clean delivery, newborn temperature management, IPT of pregnant women, the package could avert 68% of U5 deaths.

⁴ The MMR should not be confused with the maternal mortality rate (MMRate, the number of maternal deaths in women of reproductive age group, usually expressed per 1000 women). The ratio is designed to express *obstetric* risk, while the rate is an indicator of the risk of maternal death among women of reproductive age.

⁵ Firstly, the indicator is not necessarily a good indicator of performance. It may, for example, increase if clinical care within a facility is poor (an undesirable situation), but the increase could also occur if activities in the district has resulted in improved utilisation of services when complications arise (a desirable situation), even when no change in quality of care have occurred. Secondly, improving efforts to collect data on maternal mortality can in itself lead to increased reported levels from ascertainment bias. Finally, maternal mortality in facilities is often underreported. Studies in Ghana have shown that as much as a quarter of maternal deaths can be missed in routine maternal mortality reporting from institutions (Bell et al 2006). Trend analysis of IMMR in isolation can thus be falsely demotivating when the IMMR is seen to be increasing, or may provide an illusion of improved performance when the rate is decreasing.

⁶ Another option is to utilise the demographic surveillance sites in Kintampo and Navrongo (and more recently Dodowa) to measure trends in maternal mortality. The disadvantage of this approach is that national levels will not be obtainable. Yet another option is that there are new efforts at global level to improve modelling of data using as much existing country specific information as possible. Retrospective estimates for maternal mortality to 1990 are being recalculated to obtain a baseline that can then be compared with subsequent estimates. This is an advance from the existing global estimates from WHO/UNICEF/UNFPA modelled estimates which cannot be compared with each other for trend assessment. Modelled estimates however do not always have the same degree of acceptance within countries as survey based estimates.

⁷ If different approaches (for example, the original sisterhood method or sibling history in the DHS direct method, or Census) are used to collect the data on maternal mortality, there are ways of ensuring the MMR figures obtained can be used to look at trends. To do so will require careful technical considerations on confidence intervals and ensuring the modular questions on death

allow biases between difference studies to be accounted for. The need to provide good trend data is essential, making comparability between the studies a highly important matter. The formation of a small technical group tasked to plan and examine the methods proposed in each study for maternal mortality measurement is advised.

⁸ At district, regional and programme level, it would also be useful to disaggregate stillbirth data into fresh and macerated stillbirths, as the fresh stillbirth rate provides more direct evidence on the quality of intrapartum care.

⁹ There are two areas requiring attention. Firstly, as noted in the previous year's performance review report, an examination of district reports revealed that the differentiation between the two terms "supervised" and "skilled" deliveries is not clear. The performance guidelines (GHS 2006) define the indicator correctly, but the term "supervised deliveries" is still used. Secondly, in one region, the review team found that the indicator was calculated using the denominator of supervised instead of expected rates, leading to cases of reporting of "100% supervised deliveries", which has the potential of inflating the proportion of deliveries with skilled health personnel. A review of the 2006 performance report presentations from other regions did not show evidence for this being a widespread problem in other regions.

¹⁰ The components of a Jubilee health centre are:

- Ensuring that the health centre becomes fully functional in terms of providing basic preventive, intrapartum and referral services. These are already clearly outlined in the national reproductive health policy (GHS 2003).
- The innovative part of this concept is in the bringing together of religious, spiritual, behavioural, psychological needs of women during pregnancy and childbirth, to make these "services" available either at the health centre (i.e. the same site), or in association with it (as a formal recognised partnership between respected TBAs, well utilised prayer camps which provide delivery services etc). Part of this concept will be to ensure better normal birthing practices which allow women to mobilise during labour and delivery in their position of choice and limit unnecessary interventions (BBI 2007). Although the idea and policy directive to initiate this can be scaled up nationally, it is in the nature of these social interventions that solutions will be specific to local sites; discussions among civil society to effect this change at the local level needs to be led by key influencers in the community, at the level of the DDHS or the head of the district assembly.

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- Facility data is based on attendance at Child Welfare Clinics operated by GHS health facilities, and hence, only captures children attending these clinics (in fact, missing the majority of children under fives, including those attending private sector clinics);
- Child Welfare Clinic attendance drops dramatically from 95% for children 0-11 months to 50% for children 12-24 months and 15% for children 24-59 months, thus missing those children precisely at risk for undernutrition. (Source: MOH Technical Review meeting 2006: Child Health)
- The large number of children attending the WC clinic sessions prevents much individualized attention or counseling of caregivers;
- Some CW clinics suffer from shortages of weighing scales or functional scales, thus prohibiting the weighing of all children - which contributes to the unreliability of their data ;

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- The limited technical capacity of some health staff to analyse and interpret data from the weighing sessions, in part due to inconsistency and inaccuracy in completing growth charts.

¹² For example, in the rural parts of Northern Region, UNICEF supports the subsidized distribution of ITNs to children under five and pregnant women. In health facilities in some urban areas, pregnant women and children normally pay c20, 000 (though there is a waiver for indigents, and recently a voucher scheme was established for pregnant women attending ANC clinic, and for mothers who bring their children for immunisation). Community volunteers participate in bed-net re-treatment centres throughout the country.

¹³ There is said to be an informal freeze on employment, increments, and overall pay envelope.

¹⁴ The NMC cited instances of employment of unqualified persons and graduates who lacked basic skills.

¹⁵ Practical training sites are overloaded. KBTH for example received students on specialist rotations from several public and private schools.

¹⁶ Some degree program entry requirements overlap with the diploma/certificate nursing entry requirements in terms of SSS score aggregates required).

¹⁷ For example laboratory services required locum employees on IGF after many technicians went back to school to be upgraded.

¹⁸ Uganda's health sector has had significant experience with decentralizing payroll to local government (and then recentralizing certain key posts) and it will be worthwhile to learn from its experiences on transparency and governance of hiring and firing processes and avoiding unforeseen career progression restrictions for District Directors.

¹⁹ Though this did not come up in the team's interviews and reports received, the team was informed that the DAIA was abolished in 2006.

²⁰ There is need to avoid a proliferation of regional HRIS that are not consistent and comparable with each other.

²¹ GHS is also collaborating at the international level, by participating in the Health Metrics Network.

²² Ghana Health Service Annual Performance, 2006 Programme of Work: Guidelines for performance hearing and reporting by budget and management centres (GHS/ PPME, dec. '06).

²³ Inflation was 11.2% for 2006.

²⁴ An evaluation of the MDBS in Ghana was carried out in 2006. It found that the MDBS now provides some 10% of total inflows and is likely to remain at around that level.

²⁵ Even larger donors may not be providing timely information. The financial statement for 2006 reports no contribution from USAID, for example.

²⁶ This is based on adding the MoH and NHIF expenditures, but subtracting the known transfer to the MoH (already in MoH accounts) and subtracting 25% of IGF revenues. (This 25% guesstimate is based on the 20% coverage of the NHIS, which is increased slightly to allow for higher utilisation and higher unit costs for the insured.) The addition of premia raised by the DHMIS (assuming that these are all expended within the year) does not change this total.