MINISTRY OF HEALTH
GHANA

INDEPENDENT REVIEW
HEALTH SECTOR PROGRAMME OF WORK 2007

Draft Report
April 2008
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Acronyms

ADHA  Additional Duty Hours Allowance
ARI  Acute Respiratory Infection
ART  Antiretroviral Therapy
ATF  Accounting Treasury and Financial
BCC  Behaviour Change Communication
BMC  Budget Management Centre
CAGD  Controller and Account General's Department
CBGP  Community Based Growth Promotion
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
CIP  Capital Investment Plan
CMA  Common Management Arrangement
CMR  Child Mortality Rate
CMS  Central Medical Stores
CYP  Couple Years Protection
DA  District Assembly
DANIDA  Danish International Development Assistance
DCE  District Chief Executive
DFID  UK Department for International Development
DHA  District Health Administration
DHIMS  District Health Information Management System
DHMT  District Health Management Team
DMHIS  District Mutual Health Insurance Scheme
DOT  Directly Observed Therapy
DP  Development Partner
EC  European Commission
EmOC  Emergency Obstetric Care
EPI  Expanded Programme on Immunisation
FC  Financial Controller
FP  Family Planning
GH¢  New Ghana cedis
GAC  Ghana AIDS Commission
GAS  Ghana Ambulance Services
GBS  General Budget Support
GDHS  Ghana Demographic and Health Survey
GDP  Gross Domestic Product
GHS  Ghana Health Services
GOG  Government of Ghana
GMA  Ghana Medical Association
GPRS  Ghana Poverty Reduction Strategy
GSS  Ghana Statistical Services
GWEP  Guinea Worm Eradication Programme
HF  Health Fund
HIPC  Highly Indebted Poor Countries
HIRD  High Impact Rapid Delivery
HMIS  Health Management Information System
HR  Human Resources
HRD  Human Resource Directorate
ICB  International Competitive Bidding
IEC  Information, Education and Communication
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<tr>
<td>IGF</td>
<td>Internally Generated Funds</td>
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<td>ILO</td>
<td>International Labour Organisation</td>
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<td>IMCI</td>
<td>Integrated Management of Childhood Illness</td>
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<td>IME</td>
<td>Information Monitoring Evaluation</td>
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<td>IMR</td>
<td>Infant Mortality Rate</td>
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<td>ITN</td>
<td>Insecticide Treated Net</td>
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<td>JICA</td>
<td>Japan International Cooperation Agency</td>
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<td>KATH</td>
<td>Komfo Anokye Teaching Hospital</td>
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<td>KBTH</td>
<td>Korle-Bu Teaching Hospital</td>
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<tr>
<td>M&amp;E</td>
<td>Monitoring and Evaluation</td>
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<td>MA</td>
<td>Medical Assistant</td>
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<td>MCH</td>
<td>Maternal and Child Health</td>
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<td>MDA</td>
<td>Ministries, Departments and Agencies</td>
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<td>MDBS</td>
<td>Multi Donor Budget Support</td>
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<td>MDG</td>
<td>Millennium Development Goal</td>
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<td>MICS</td>
<td>Multiple Indicator Cluster Survey</td>
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<td>MMR</td>
<td>Maternal Mortality Ratio</td>
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<td>MOH</td>
<td>Ministry of Health</td>
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<td>MOFED</td>
<td>Ministry of Finance and Economic Development</td>
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<td>MOLGRD</td>
<td>Ministry of Local Government and Rural Development</td>
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<td>MOU</td>
<td>Memorandum of Understanding</td>
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<td>MTEF</td>
<td>Medium Term Expenditure Framework</td>
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<td>NCD</td>
<td>Non-Communicable Disease</td>
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<td>NDPC</td>
<td>National Development Planning Commission</td>
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<td>NHIA</td>
<td>National Health Insurance Authority</td>
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<td>NHIF</td>
<td>National Health Insurance Fund</td>
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<td>NHIS</td>
<td>National Health Insurance System</td>
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<td>OPD</td>
<td>Out-Patient Department</td>
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<td>PE</td>
<td>Personal Emoluments</td>
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<td>PFM</td>
<td>Public Financial Management</td>
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<td>PNC</td>
<td>Post Natal Care</td>
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<td>POW</td>
<td>Programme of Work</td>
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<td>PPM</td>
<td>Planned Preventive Maintenance</td>
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<td>PPME</td>
<td>Policy, Planning, Monitoring and Evaluation</td>
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<td>PPP</td>
<td>Public-Private Partnership</td>
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<td>RCH</td>
<td>Reproductive and Child Health</td>
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<td>Regional Director of Health Services</td>
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<td>RH</td>
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<td>Regional Health Administration</td>
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<td>Regional Health Management Team</td>
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<td>Regenerative Health and Nutrition Programme</td>
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<td>SBS</td>
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<td>SWAp</td>
<td>Sector-Wide Approach</td>
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<td>TA</td>
<td>Technical Assistance</td>
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<td>TBA</td>
<td>Traditional Birth Attendant</td>
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<td>Teaching Hospital</td>
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<td>TTH</td>
<td>Tamale Teaching Hospital</td>
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<td>U5MR</td>
<td>Under-Five Mortality Rate</td>
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<td>UNAIDS</td>
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<td>UNFPA</td>
<td>United Nations Fund for Population Activities</td>
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<td>UNICEF</td>
<td>United Nations Children's Fund</td>
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<td>USAID</td>
<td>United States Agency for International Development</td>
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EXECUTIVE SUMMARY

The following summarises the main findings and recommendations of the independent review of the health sector 2007 POW. The review assessed progress towards sector objectives and targets and specific areas under each of the POW’s four strategic objective, and considered equity as a cross-cutting issue.

Sector progress and challenges

Progress towards sector-wide indicators There has been good progress towards some sector-wide indicators. OPD attendance per capita increased significantly, from 0.52 in 2006 to 0.69 in 2007, reflecting expanded NHIS coverage. In child health, the proportion of U5s sleeping under an ITN and the proportion of infants receiving Penta3 and measles immunisation increased between 2006 and 2007 (from 41.3% to 58.3%, 84.2% to 88%, and 85.1% to 89%), and targets for 2007 were almost achieved.

In communicable diseases, HIV prevalence in pregnant women declined from 3.2% to 2.6%, exceeding the target for 2007, and the number of HIV-positive individuals receiving ART doubled from around 6,000 to over 13,000 between 2006 and 2007, although the increase was insufficient to meet the 2007 target. The TB treatment success rate continued to increase, reaching 76.1%, although again the target for 2007 was not met. Incidence of guinea worm declined between 2006 and 2005, exceeding the annual target, although at current rates of progress the 2011 target may not be met.

With the exception of ANC coverage, which showed a slight increase in already high rates, maternal health indicators worsened. The proportion of deliveries attended by a trained health worker declined between 2005 and 2007 from 54.1% to 35.1% and targets were not achieved in 2006 or 2007. After improving between 2005 and 2006, institutional MMR worsened between 2006 and 2007 from 197/100,000 to 244/100,000. There is an urgent need to step up efforts to address these worsening indicators.

The POW 2007-2011 also includes sector-wide indicators to track progress in sector financing and equity. Data are not yet available to comment on these indicators, with the exception of NHIS coverage, which achieved an increase in the proportion of the population with a valid NHIS card from 25% in 2006 to 42% in 2007.

Challenges and future direction The Five Year POW 2007-2011 identifies challenges facing the health sector as: slow improvements in health outcomes; persistent under-nutrition; persistence of some diseases that could easily be controlled; neglect of other diseases which intensify poverty; growing burden of NCD; uneven performance and productivity; and missed opportunities for mobilising resources for health development. The independent review identified the following specific challenges, some of which are discussed in more detail in this report, which need to be addressed to ensure effective future sector performance and achieve the objectives of the Five Year POW and of the MDGs. These include:

- Intersectoral action – Achievement of the objectives of the POW 2007-2011 is dependent on action by other sectors and by other actors in the health sector not just by the MOH. Intersectoral and intrasectoral action will therefore be critical to success. Establishing effective and efficient mechanisms for coordination and collaboration will be a significant challenge for the MOH during 2007-2011.
Engagement with DAs – Engagement with DAs, an increasingly important source of funding for the sector at district level, will be essential to ensure a strategic approach to capital investment in health facilities and staff accommodation, support for health worker training and efforts to improve maternal health, and action to create an environment that supports healthy lifestyles.

Integration and linkages – Some initiatives, such as RHNP and HIRD are not well integrated with district plans. Links between various initiatives intended to improve MCH, including HIRD, CHPS, RHNP and IMCI, are unclear. It will be important to ensure that efforts to accelerate action on MDG 4 and MDG 5 do not result in further verticalisation and fragmentation of services and funding.

Financing non-curative services – GOG funding for item 3 has reduced. While the NHIS has increased provider revenue for curative services, this leaves a potential gap in resources available for public health and non-curative services. District dependence on direct programme and earmarked funding, which is not included in district planning and budgeting and is not always predictable, is a concern.

Resource-based planning and performance – Performance agreements and contracts are based on an understanding that if resources are not provided, targets cannot be reached and thus the agreement is not binding. There is a need to institute resource-based planning from the lowest level, with aggregate negotiated targets constituting national sector targets. Success will depend on all activities being incorporated in one plan and monitoring framework at all levels. District, hospital and regional targets should form the key agenda for periodic reviews and the basis for management contracts for DHA, hospitals and RHA.

Inequitable access to services – Inequities in health facility coverage and distribution of health staff are stark. While this is recognised, and reflected in the sector-wide indicators in the POW 2007-2001, there is no concrete plan to tackle inequity in deprived districts that incorporates capital investment, procurement, staff and other inputs as well as action to target NHIS registration to the poor. Specific attention should be given to strategies to recruit and retain staff with an appropriate skills mix, to fill existing gaps and address future gaps related to the ageing workforce.

Containing costs – A major challenge for the sector is balancing expansion in service coverage to reach MDG 4 and 5 and address inequities, which has implications for infrastructure – for example, expansion of CHPS – and staffing, for example, expansion of mid-level cadres, with containment of capital investment and salary costs.

Quality of care – There are no indicators in the POW 2007-2001 on quality of care. Systems need to be put in place to ensure that expanded utilisation of health services as a result of increased NHIS coverage does not compromise quality of care.

Healthy lifestyle and environment

Regenerative Health and Nutrition Programme RHNP is an important initiative, given Ghana’s increasing burden of non-communicable disease (NCD) and demand for health care. Good progress was made in 2007. RHNP was piloted in 10 districts and 1,000 community change agents and 40,000 advocates were trained. Healthy
lifestyle messages were communicated through mass and community media. The MOH developed a draft Strategic Plan and Communication Strategy and reviewed pilot implementation experience.

Efforts have concentrated on healthy lifestyle messages, with less attention given to other RHNP components. RHNP has not taken steps to target messages to different audiences or adapt training to the local context. Limited progress has been made as yet in collaboration with other sectors to define a package of interventions and implementation responsibilities. Institutional and financial sustainability need to be addressed, including integrating RHNP into sector plans and activities and exploring potential DA and NHIS funding. There is no plan to collect baseline information or data to monitor progress or measure impact. Recommendations include:

- Identify priority public sector and private sector actors for action on RHN and engage with these actors to mobilise commitment.
- Establish a core intersectoral task force comprising the above under the auspices of the proposed RHN Secretariat, to provide leadership in the following areas.
- Define key RHN objectives, indicators and targets at national and district levels.
- Work in partnership with priority public sectors to identify clear roles and responsibilities and integrate these into existing policies, plans and activities.
- Identify the potential contribution and role of the private sector and NGOs.
- Review the communication and training components of the RHNP.
- Develop an M&E strategy.

**Health services**

*High Impact Rapid Delivery* Planning workshops have been conducted in all regions, and plans and budgets for 2008 developed for all districts. Funds were released to all districts and regions in September 2007. HIRD has increased focus on RCH interventions in some districts, largely because it provides specific funding for service delivery. However, maternal health indicators indicate that there is a still an urgent need to scale up coverage with key interventions and services.

HIRD planning was conducted separately from district health planning, and did not involve hospitals. A separate M&E framework is being developed. Parallel planning and funding has resulted in poor integration of activities and the perception that HIRD is a vertical programme. This is exacerbated by the lack of a clear strategy and set of agreed interventions. Some districts have used HIRD funds to fill gaps in their budget or to pay debts rather than for MCH interventions. Recommendations include:

- Agree and disseminate a package of essential interventions.
- Ensure integration of HIRD planning into district resource-based planning and budgeting processes.

*Supervised delivery* Coverage of ANC is high and increased slightly in 2007. The proportion of maternal deaths audited has risen. Efforts have been made to increase midwifery training, although uptake of places was low, and to upgrade equipment and transport for obstetric services, including district deployment of ambulances. DHMTs are using innovative approaches to increase supervised delivery including targeting pregnant women for NHIS registration and providing incentives for TBAs to refer women to facilities. DAs are improving access to supervised delivery and emergency obstetric care by upgrading facilities and funding scholarships for midwifery training.

Despite these efforts, the proportion of deliveries attended by skilled personnel fell sharply in 2007 and significant regional, urban and rural, and socio-economic
differences remain. Poor quality of care (related to lack of qualified staff and equipment, limited awareness of current policies and inadequate training), distance from health facilities and socio-cultural factors contribute to low rates of supervised delivery. Anecdotal evidence suggests that the decrease in supervised deliveries may be partly due to the ending of exemptions for delivery care and consequent financial barriers for women not registered with the NHIS. Recommendations include:

- Strengthen dissemination of RCH policies to district and health facility levels.
- Use opportunities provided by high ANC attendance to promote supervised delivery by a skilled attendant and create awareness of the benefits of NHIS registration; and target pregnant women for NHIS registration.
- Promote midwifery as a career and uptake of available training places.
- Explore the potential to upgrade CHPS compounds in strategic locations, i.e. where access to health facilities is limited, to community maternity homes; and opportunities for DA financing of this.
- Identify localities within metropolitan areas with high home deliveries and work with local health facilities to increase uptake of institutional delivery.
- Strengthen existing efforts to prioritise capital investment in essential obstetric equipment and supplies and transport for emergency obstetric care.
- Encourage the national ambulance service to work with DHMTs to plan priorities for deployment of ambulances, and CHPS to mobilise community-based emergency transport for maternal care.

**Family planning**

Health facilities are using innovative approaches to ensure that women have access to advice and contraceptives as well as stepping up community education. Although facility staff report a slow increase in uptake and more positive attitudes towards FP, targets for FP indicators were not met in 2007. While CYPR using short term methods increased, use of long term methods declined markedly.

The vertical nature of service provision – for example, FP is not integrated with ANC – limits opportunities to improve FP uptake. Lack of male involvement and support, and opposition from traditional and religious leaders are critical barriers. A related factor contributing to low uptake is the persistence of FP myths, some of which are propagated by health providers. Some staff lack up-to-date skills and knowledge to provide comprehensive FP services, including to adolescents. FP is not covered by the NHIS, affecting FP access for poorer women and offering little incentive for private practitioners to provide FP services. The funding gap for contraceptives is a serious concern and commodity security needs to be addressed urgently. Recommendations include:

- Integrate FP services into ANC to maximise potential of high ANC attendance.
- Provide FP training for CHPS staff, including in long term methods, and integrate FP commodity provision into CHPS outreach activities.
- Develop a joint RCH and HP unit strategy to tackle myths concerning FP.
- Strengthen provision of FP services for adolescents and young women.
- Explore with NHIA the potential to cover FP under the NHIS.
- Fully fund RH commodities within POW 2007-2011 procurement plans.

**Health systems and capacity**

**Human resources**

The salary rationalisation programme has been implemented and most staff are satisfied with the new salary structure. Abolition of the ADHA has reduced administrative work load for managers. Salary rationalisation is reported to have reduced staff attrition, but data to verify this are not yet available. The new performance appraisal system was pre-tested in four regions and is expected to be
rolled out nationally in 2008. Middle level training schools increased in 2007 from 7 to 14 and targets for increased production of some cadres, for example Community Health Nurses and Medical Assistants were met or exceeded. A Central Deployment Committee has been established and is considering implementation of compulsory rural deployment to address inequitable staff distribution.

The salary rationalisation programme has, however, faced some administrative challenges, principally related to placement of staff at appropriate levels, which are currently being addressed. The programme was implemented hurriedly, to avert an impending strike, without being linked to the introduction of performance management and a knowledge and skills framework as originally planned. Although performance targets are set every year by districts, there is no performance accountability system across the continuum and also no indication that measurement of performance in human resource management has commenced. Performance management is, however, a priority in the 2008 POW. Productivity is also a critical concern, but there is as yet no strategy for measuring or improving productivity.

The inequitable distribution of health personnel in Ghana is a serious challenge. While there was some improvement during 2005-2006, especially for midwives, a more mixed pattern is observed for nurses and Medical Officers. Recruitment and retention of staff is a particular challenge in hard to reach districts. Inadequate staff accommodation is a critical factor. Staff are now expected to pay rent to local authorities; this may exacerbate retention challenges. The expansion of the NHIS has significantly increased demand for health services and the resulting increase in work load is a problem in facilities with shortages of staff. Ghana is also facing a succession challenge. Most Medical Assistants and Enrolled Nurses are aged 40-60 with fewer than 10% in younger age groups. Recommendations include:

- Complete implementation of the salary rationalisation programme.
- Strengthen performance-based management on the basis of resource-based district, hospital and regional negotiated targets that are consolidated into national targets in one plan and monitoring framework, guiding the different levels to regularly review performance and be held accountable for results consistent with government-wide procedures.
- Take steps to enhance productivity.
- Strengthen HR planning and projections through a review of staffing norms.
- Develop and implement a plan to address inequitable staff distribution.

**Health Management Information System** A draft Health Information Management Strategic Plan 2007-2011 has been developed as well as a draft legal framework. The sector has made good progress in developing a robust data management system, introducing a District Health Information Management System (DHIMS) in 2007. Health Information Officer positions have been established at district level and efforts made to recruit and deploy staff. However, the sector has also introduced a public health information system (Health Service System Database) at regional and district level in 2007, which is running parallel to the DHIMS, although many indicators are common to both systems. Maintaining two systems contributes to duplication of effort and undermines the principle of establishing a single repository and the Paris Declaration’s one monitoring framework.

The DHIMS does not yet produce summary performance statements for district use and serves only as a path for data acquisition by the centre. As a result, districts have developed a further parallel method of summarising information required for decision making. Most health facilities and some districts do not have qualified health information staff. Completeness of data from facilities and reporting from the private
sector remains a challenge, but should improve once the necessary legal framework is established. There is a need to ensure that the HMIS is able to detect inequities in areas such as allocation of resources, service outputs and quality of care. Recommendations include:

- Urgently bring together the two systems into one repository to avoid duplication and enhance data management efficiency and effectiveness.
- Improve the DHIMS database so that it can generate information to inform decision making and regular performance review meetings.
- Address health information staffing issues.
- Enhance analysis and use of information.
- Explore in the short to medium-term ways of incorporating management data into DHIMS to facilitate sector-wide reporting.

**Capital expenditure** Prudent management reduced capital investment debt from GH¢7.0 million in 2005 to GH¢0 by early 2008. To address the reduction in available funds for capital investment in 2007 and annual growth of unpaid bills, the MOH employed clear prioritisation and allocation criteria. The Final Draft Capital Investment Plan (CIP) III was developed with key stakeholders. CIP III includes budget lines for ambulances, general vehicles and basic equipment for delivery care, although the allocation for these items is limited. DAs are increasingly funding infrastructure, mainly construction or rehabilitation of CHPS compounds, staff and office accommodation, although this contribution is not currently captured. Policy was issued on setting aside a proportion of service delivery funds at district level for PPM of equipment. Guidelines on PPM of buildings have not yet been issued.

Inadequate funding, including a reduction in budgeted GOG funds resulting from the energy crisis, and over-centralisation of the payment of works were key constraints for the 2007 CIP. Budgeted activities were affected as priority was given to settling pending bills and over 200 on-going capital projects. Only 75% of available vehicles are roadworthy and, in all regions, most vehicles have been in operation for 5-10 years. There is a growing need for capital investment, to address deterioration of existing health infrastructure, provide staff accommodation and infrastructure in deprived areas, expand and improve the quality of existing facilities to meet increased demand created by the NHIS, and replace or upgrade vehicles and equipment. However, existing commitments and budget constraints provide little scope to address these areas or to redress inequity. Recommendations include:

- Relate CIP III priorities to the 3 scenarios by applying specific resource allocation criteria for 1st, 2nd and 3rd call on available resources.
- Enter into dialogue with MOFEP on acceptable decentralised capital investment payment mechanisms to enhance expenditure effectiveness.
- Develop an overview of the total resource envelope for district capital investment.
- Develop a medium-to-long-term capital investment plan that prioritises addressing inequities and achievement of MDG 4 and MDG 5.
- Strengthen PPM.

**Procurement and logistics** Essential medicines and supplies, with the exception of vaccines, are distributed through the national logistics system. Overall, the system is working well and facilities do not experience stock outs. Reliable supply has provided a sound basis for the introduction and expansion of the NHIS. However, CMS and RMS are not consistently following national policy concerning distribution. Specifically, CMS is not delivering to all RMS, and some RMS are not delivering to facilities. This requires RMS and facilities to make specific trips to place orders and collect supplies, which is an inefficient use of resources. Challenges identified by
RMS include inadequate vehicles, staff and storage facilities. Recommendations include:

- Ensure CMS delivers to all RMS and all RMS deliver to all facilities within their region in accordance with national policy.
- Explore ways to increase efficiency of distribution from RMS to health facilities.
- Plan and budget for RMS to be properly resourced, including with appropriate vehicles and staff capacity.
- In the medium-term, maintain the EPI delivery parallel system to avoid disruption whilst improving the overall logistics system.

**Governance and financing**

**Sector financing** The continuing shift by DPs to budget support financing for the sector is a positive development. The proportion of total DP funding earmarked fell from 43.5% in 2006 to 39.5% in 2007. DP funding through the Health Fund has declined from 15% in 2005 to a projected 6% of the resource envelope in 2007. NHIS funding as a share of sector financing increased from 5% in 2006 to a projected 29% in 2007 and this has been accompanied by a fall in GOG share between 2006 and 2007, despite an increase in the nominal value of the GOG contribution.

Mismatch between funding capture on-plan, on-budget and on-account continues to be significant. The agreed Health Financing Task Force to review the situation and prepare a health financing strategy has not been established. A comprehensive overview of sources, flows and uses of funds is essential to strengthen the financial base for the sector, ensure allocations are in line with priorities, and link financial resources with improving outputs and outcomes. The fragmentation of non-SBS sources of external funding to the sector is a concern. Recommendations include:

- Develop a comprehensive overview of sector financing – sources, flows, uses – to inform the planned Health Financing Strategy.
- Maintain dialogue with MOFEP about share of GOG budget allocated to health.
- Strengthen MOH capacity to request funding from MOFEP in a timely manner.
- Renew calls for DPs to improve the predictability of their funding.
- Ensure all providers separate NHI and other IGF resources in BMC reporting.
- Analyse 2007 expenditures from an equity perspective

**Public Expenditure Review** The MOH saw a continuing increase in the absolute value of its budget, from GH¢ 504 million in 2006 to GH¢ 589 million in 2007, although growth was slower than in the previous year. Budget execution (release against budget) was close to or more than 100% for all sources for which data were available, although significant ‘over-spend’ implies weaknesses in budgeting and predictability of funding. 2007 GOG item 3 releases improved over 2006, both in absolute terms and releases against budget. The September 2007 Financial Statement indicates that share of expenditure allocated to district level BMCs increased from 41% in 2006 to 43%. A detailed Public Expenditure Tracking Survey was undertaken in late 2007. It was expected that a more detailed analysis of budget execution would be part of the independent review. However, the draft 2007 Financial Statement was not available and difficulties were also experienced in accessing MOFEP release and MOH disbursement data. Recommendations include:

- Clarify outstanding queries on available disbursement data with MOH.
- Prepare a comprehensive review of 2007 budget, adjusted budget (as done for Capital Investment Plan), releases and disbursements.
Following release of the Financial Statement for 2007, supplement the above review with analysis of actual expenditures, for areas above and also by region.

- MOH PPME should design a simple recording format for reporting on releases from MOFEP and disbursements to BMCs during the financial year.
- Incorporate recommendations of the PETS into ongoing plans to strengthen public finance reporting and financial management as appropriate.
- Review per capita total health spending, expenditure by item and by selected sources to determine the extent of geographical differences and inform a more comprehensive strategy for addressing inequities within the system.

**National Health Insurance Scheme** NHIS coverage has expanded significantly, with the number of district schemes reaching 145 by December 2007. By the end of 2007, 55% of the population was registered with the NHIS and 42% had received ID cards. The NHIS has had a considerable impact on utilisation of health services. OPD and IPD use more than doubled from 3,213,450 in 2005 to 6,835,104 as of the end of September 2007. The NHIA has developed a new comprehensive medicines list and tariffs based on diagnostic-related groupings, to be rolled out by April 2008.

Administrative challenges include lack of a standard timeframe for issuing cards and of a uniform premium system across schemes (with implications for portability and equity within the national scheme), and reimbursement of claims from districts other than the district of the health facility. Other challenges relate to managerial and technical capacity of scheme staff and scheme governance.

Defining and targeting the poor is a critical issue. The current exemption system covers those classed as ‘indigents’, who represent only 1% of the population, whereas approximately 18% of the population is categorised as poor in absolute terms (GLSS). The budget for 2008 allows for up to 10% of the population to be registered as indigents, but it is unclear how the poor will be defined. Limited efforts appear to have been made to target the poor, due in part to the lack of a standardised approach to incentives for agents. There are concerns about the impact of increased tariffs on the unregistered poor who do not qualify as indigent and who will be required to pay higher out of pocket payments. There is as yet no indication of when decoupling children from parents or guardians will be implemented. Recommendations include:

- Review criteria to define indigents and agree clear criteria for identifying the poor.
- Standardise premiums as well as incentives for registration agents across all schemes and ensure compliance.
- Develop a policy and system to ensure that claims for reimbursement from other district schemes are paid.
- Take steps to implement decoupling children under 6 so that such children can be registered for free coverage.
- Develop a clear policy and guidance on scheme board membership including guidelines on management of potential conflict of interest.
- Develop a standardised reporting template that can provide disaggregated data in terms of sex, age, utilisation by membership type, and disease diagnosis.
- Strengthen monitoring of registration and use of services by the poor, of differential utilisation rates for insured and non-insured members to strengthen planning for increased membership and to identify any potential moral hazard, and utilisation and cost by DRG to facilitate planning for future workload.
- Discuss information needs with GHS and NHIA to ensure that data requirements for monitoring NHIS in the context of changing sector financing are captured within DHMIS and NHIA routine reporting.
Explore scope for synergies between the DHMIS and NHIA computerised MIS and claims management system.

**Financial management** Budget information is more comprehensive, in particular ability to show sources of income and direction of expenditure by programmes. Channelling item 2 funds through the treasury system has streamlined and speeded up funds flow. The MOH has increased training for national and regional finance staff and work is advanced in automating accounting and financial management systems at national and regional levels. Structures are in place within MOH and its agencies to ensure financial controls and effective utilisation of resources. There has been improvement in the timeliness of the conduct and release of audited financial statements and management letters. Oversight of the MOH by external bodies has also improved. The MOH finance unit has initiated steps towards review of the ATF rules but is awaiting the new accounting manual for all MDAs from the Controller and Account General’s Department (CAGD).

There are still some reported concerns about budget credibility. Factors driving this concern include use of needs- and resource-based budgeting, financing gaps, capturing earmarked funds, and difficulties in comparing the budget and expenditure as different formats are used for the budget and Financial Statement. There are also concerns about the capacity of health sector finance staff to respond to NHIS recording and accounting requirements, in particular the introduction in April 2008 of claims based on diagnostic-related groupings. Lack of adequate numbers of appropriately skilled staff, in particular at the lower levels of the health system, is a major challenge. The MOH internal audit unit is also seriously under staffed and documentation of internal audit queries and management responses is weak. Recommendations include:

- Strengthen staff capacity.
- Improve communication between budget and finance units of the MOH and GHS and consistency of budget and Financial Statement presentation.
- Return to comprehensive, resource-based planning within known ceilings, at both central and BMC level, in order to address issues of predictability, financing gaps and budget credibility.
- Conduct a study on the relevance of the ATF rules, once the CAGD new financial management manual is available, in order to determine changes required.
- Determine financial reporting requirements at each level and design and implement a single financial management system that will generate reports relevant to management needs at each reporting level.
- Ensure that the internal audit unit increases its focus on assurance and introduces systems to document issues related to internal and external audit.
1. INTRODUCTION

1.1 Programme of Work 2007-2011

The theme of the Ghana health sector Five Year Programme of Work (POW) 2007-2011 is Creating Wealth through Health. The POW aims to: ensure that people live long, healthy and productive lives and reproduce without risk of injuries or death; reduce excess risk and burden of mortality, morbidity and disability especially in poor and marginalised groups, and reduce inequalities in access to health, population and nutrition services and health outcomes. These are to be achieved through four strategic objectives:

- Healthy lifestyle and environment
- Coverage of high quality health, reproductive and nutrition services
- Strengthened health systems and capacity
- Good governance and sustainable financing

The Five Year POW 2007-2011 represents a shift in emphasis from the POW 2002-2006, with increased financing of curative services through the National Health Insurance Scheme, an expanded role for the MOH in prevention, and a stronger focus on tackling health inequalities. The POW 2007-2011 represents an improvement on previous POW in that it links Goals with Strategic Objectives and defines indicators for measuring progress.

This report summarises the findings and recommendations of the independent review of the health sector 2007 POW, which is structured around the same four strategic objectives as the Five Year POW.

The MOH emphasised that assessment of progress in 2007 should be viewed in the context both of changes in health sector financing and of 2007 as a transition year between the POW 2002-2006 and POW 2007-2011, with implementation commencing in 2008.

1.2 Independent review of POW 2007

The overall purpose of the independent review, conducted 10-28 March 2008, was to assess progress towards health sector objectives and targets and to identify constraints and opportunities for improving sector performance. The review team focused on assessment of progress towards the following priority areas in the terms of reference (see Annex 1):

- Regenerative Health and Nutrition Programme (RHNP)
- High Impact Rapid Delivery (HIRD)
- Human resource rationalisation
- National Health Insurance Scheme (NHIS)

In addition, the team reviewed four areas of interest identified by the MOH:

- Equity within the health sector, including geographical and financial access
- Reproductive health services, in particular supervised deliveries and family planning
- Capital investment
- Public Expenditure Review
The team was also asked to test the methodology for holistic assessment of sector performance and to comment on the challenges of applying this methodology. Time limitations restricted the extent to which this was possible.

The independent review is part of a wider process of annual assessment of progress in the health sector, and is preceded by Budget and Management Centre (BMC) performance reviews, district and regional performance hearings, and agency, development partner and technical reviews. The independent review methodology therefore included validation and synthesis of reports resulting from this self-assessment process, as well as review of other background documents provided by the MOH (see Annex 2). The review team also met with key stakeholders at national level and conducted field visits to Greater Accra, Upper East and Brong-Ahafo regions (see Annex 3).

The team faced a number of constraints in conducting the review. Progress reports were not available for some key areas, including human resources, HMIS, procurement and logistics, and the financial statement for 2007 and GHS annual report for 2007 were not finalised at the time of the review. Efforts to collect data therefore took up considerable time and it was not possible to obtain figures for 2007 performance for some indicators included in the POW 2007. The health economics and finance international team member was only able to participate for two out of the three weeks of the review period. The review coincided with Easter, which reduced the number of working days available for meetings with stakeholders.

Sections 2-5 of this report are structured around the four Strategic Objectives and summarise achievements, key issues and challenges, and recommendations in each area of focus in the terms of reference, as well as briefly reviewing progress towards POW 2007 indicators and targets. Annex 4 provides a summary of progress, provided by the MOH, with implementation of Aide Memoire recommendations. Annex 5 provides comments on the holistic assessment process and a summary of the output of the holistic assessment.
2. HEALTHY LIFESTYLES AND ENVIRONMENT

2.1 Indicators and targets

<table>
<thead>
<tr>
<th>Key results and indicators</th>
<th>2006 achievement</th>
<th>2007 target</th>
<th>2007 achievement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prevalence of hypertension/mean systolic BP</td>
<td>N/A</td>
<td>Baseline to be established</td>
<td>Data not available</td>
</tr>
<tr>
<td>Prevalence of adult and child obesity</td>
<td>N/A</td>
<td>Baseline to be established</td>
<td>Data not available</td>
</tr>
<tr>
<td>Prevalence of tobacco use</td>
<td>N/A</td>
<td>Baseline to be established</td>
<td>Data not available</td>
</tr>
<tr>
<td>Per capita alcohol consumption</td>
<td>N/A</td>
<td>Baseline to be established</td>
<td>Data not available</td>
</tr>
<tr>
<td>% condom use (current use among women)</td>
<td>20% (2005)</td>
<td>22.5%</td>
<td>Data not available</td>
</tr>
<tr>
<td>% food vendors clinically certified</td>
<td>N/A</td>
<td>Baseline to be established</td>
<td>Data not available</td>
</tr>
<tr>
<td>% rural population with access to safe water sources</td>
<td>52% (2005)</td>
<td>Indicator changed in POW 2007-2011</td>
<td>Data not available</td>
</tr>
</tbody>
</table>

It is not possible to comment on progress towards the majority of POW 2007 indicators for this Strategic Objective, since baselines and targets, and approaches to measuring progress, have not yet been established. The review team did not pursue this since MOH reports that indicators for 2007 were provisional and that the POW 2008 indicators for this Strategic Objective will be used to measure progress on an annual basis during the remainder of the Five Year POW (2007-2011). There are three indicators in the POW 2008: prevalence of obesity in the adult population; the percentage of households with sanitary facilities; and the percentage of households with access to an improved source of drinking water.

<table>
<thead>
<tr>
<th>POW 2007: Strategic Objective 1</th>
<th>Progress</th>
</tr>
</thead>
<tbody>
<tr>
<td>Priority activity</td>
<td>Develop and pilot RHNP</td>
</tr>
<tr>
<td>Milestone</td>
<td>The RHNP was piloted in 10 districts in 2007</td>
</tr>
<tr>
<td>RHN P document developed and finalised by end of 2007 and presented at first business meeting in 2008</td>
<td>Draft RHN P strategy was developed in 2007. MOH reports that the draft strategy will be finalised in March 2008</td>
</tr>
</tbody>
</table>

The Regenerative Health and Nutrition Programme (RHNP) was the main focus of activity under Strategic Objective 1 in 2007. The POW 2007 included two other broad areas of programming under this Strategic Objective – public health legislation and intersectoral advocacy and action – and related activities including review and enforcement of public health legislation in partnership with regulatory agencies, dialogue with MOFEP concerning taxation of alcohol and tobacco, and efforts to work with the National Development Planning Commission (NDPC) and District Assemblies (DA) to strengthen sector collaboration. It is unclear to what extent these have been taken forward.

2.2 Regenerative Health and Nutrition Programme

Achievements

- Focus on health promotion and disease prevention – The Regenerative Health and Nutrition Programme (RHNP) is a new public health programme initiated by the MOH in December 2006, which emphasises health promotion and disease
prevention, with a focus on tackling illness related to lifestyle and environment. The aim is to improve the health status of Ghanaians, largely through non-medical interventions. The four components of the RHNP are: healthy lifestyle, nutrition, maternal and child health (MCH), and a healthy and enabling environment. Healthy lifestyle messages focus on eating a healthy diet, drinking plenty of water, practising good hygiene, taking exercise and adequate rest. The RHNP has three main areas of activity: training and orientation of change agents and advocates for healthy lifestyles, nutrition and MCH; communicating healthy lifestyle messages through the mass media and at community level; and promoting services and facilities that support an enabling environment, for example, water, sanitation and health services and physical fitness facilities.

- The RHNP is timely – The RHNP is an important initiative, given Ghana’s increasing burden of non-communicable disease (NCD) and increasing demand for health care. The draft RHNP Strategic Plan 2007-2011 reports that stroke and hypertension were among the top ten causes of in-patient death in 2003, based on data from 32 sentinel hospitals. Diabetes prevalence is reported to have risen from 0.2% in the 1960s to 6.4% in 2003. National OPD hypertension cases increased from 60,000 in 1990 to 250,000 in 2005. DHS data show an increase in prevalence of obesity in adult women from 10% in 1993 to 25.3% in 2003.

- Pilots implemented – The RHNP has been piloted in 10 districts in 7 regions – Amasaman and Ada in Greater Accra Region, Akim-Oda in Eastern Region, Hohoe and Keta in Volta Region, Askikuma-Odobeng-Brakwa in Central Region, Tamale and Gushegu in Northern Region, Bolgatanga in Upper East Region, and Wa in Upper West Region. Lack of funding prevented implementation in the additional 14 districts targeted for 2007. Activities undertaken in pilot districts to promote an enabling environment included training hospital matrons, TBAs and home science teachers in the MCH and nutrition components of the RHNP.

- Training implemented – More than 1,000 change agents and 40,000 advocates were trained in the 10 pilot districts. Individuals were selected for training in collaboration with DAs. Change agents, who include public sector workers such as hospital matrons and teachers and those working in community-based institutions such as markets and keep fit clubs, are expected to serve as role models and to provide practical advice and support for healthy living, while advocates, who include traditional and religious leaders, are expected to create awareness, motivate communities and disseminate information.

- Positive impact on change agents and advocates – An independent review of training in July-August 2007 found that change agents were applying regenerative health and nutrition (RHN) to their own lives and that a core group were disseminating messages more widely in communities, churches, schools, workplaces and keep fit clubs. Advocates were engaged in activities including talking about RHN to friends, educating food vendors, organising weekly health walks, teaching school children, establishing regenerative health clubs and putting up billboards. Field visits by the independent review team in pilot districts confirmed that RHNP has had an impact. Examples given included an increase in the number of keep fit clubs and talks given at health facilities on healthy lifestyle and diet, as well as individuals reporting that they have started to exercise more.

- Orientation conducted – Orientation on RHN was conducted for MOH, GHS and other MDA staff as well as for the media and Ministry of Information regional staff, including through visits to Benin and Israel to see RHN in action.
National mass media campaign – During 2007, RHN and healthy lifestyle messages were communicated through national TV, radio and newspapers and through local radio, film shows, community mobilisation and use of traditional media. The Ghana Telecom Company has also disseminated messages through its mobile phone network. The communication component of RHNP has yet to be evaluated, but anecdotal feedback indicates that messages were widely disseminated.

Strategic Plan – The MOH has developed a draft RHNP Strategic Plan 2007-2011, a draft Communication Strategy, and an agenda for action in 2008, which includes training, orientation, production of IEC materials in local languages, policy dialogue, advocacy and partnership development. The MOH reports that 5,000 RHN activists – young people who have completed national service – will be recruited at district level and will be remunerated by the National Youth Employment Programme with funds generated by the Talk Time Tax.

Review of RHNP conducted – A review of RHNP implementation experience in September 2007, following 6 months of piloting, identified actions required to scale up RHN. These actions, and opportunities for strengthening the RHNP, are included in the following discussion. The MOH reports that the Strategic Plan is now finalised and that this addresses many of the issues identified below, but the final version was not available to the team at the time of the review.

Key issues and challenges

Focus on healthy lifestyles – The main emphasis of the draft RHNP Strategic Plan 2007-2011 is on the first component – healthy lifestyles. Limited attention is given to the other three components – nutrition, MCH and healthy environment. Healthy lifestyle has also been the focus of activity in 2007. Efforts have largely concentrated on communicating healthy lifestyle messages and training community change agents and advocates to promote healthy lifestyles.

Relevance of messages – The healthy lifestyle messages are perhaps more appropriate for some segments of the Ghanaian population than others. For example, messages about taking more exercise and reducing intake of fatty, processed foods are in general more relevant for urban and wealthier populations than for rural and poorer communities. During field visits, health workers reported that communities in rural areas were unclear about the purpose of organised health walks, when their daily lives already incorporate a considerable amount of physical activity.

Lack of targeting – The draft Strategic Plan and Communication Strategy do not refer to the specific needs of different regions, socio-economic groups, men and women, urban and rural communities, or address the need to target messages. While the draft Communication Strategy refers to segmented target groups, it does not specify who these groups are, with the exception of young people and people with disabilities.

Adaptation to local context – RHN messages and activities would be more effective if they were tailored to district and community disease profiles. A related issue is the extent to which RHN training for change agents and advocates is adapted to the local context. The independent review of training in July-August 2007 highlighted concerns among change agents about cultural appropriateness, for example, the emphasis on eating certain foods that are not locally available or are expensive and confusion about whether they were supposed to promote a
vegetarian diet. Health workers cited concerns about contradictions between MOH policy on childhood nutrition and the content of RHN training. This reflects lack of consultation with MOH and GHS nutrition staff in the design of the RHNP.

- Supportive services and enabling environment – While it is important to encourage individuals and communities to take responsibility for their health, effective health promotion and disease prevention requires behaviour change communication to be complemented by action to provide supportive services and an enabling environment. The RHNP is intended to be an intersectoral initiative involving health, local government, education, water and food safety among others in providing services and creating an enabling environment – for example, ensuring that health facilities have the capacity to monitor blood pressure, advise about diet and managing chronic diseases, encouraging local authorities to provide adequate water, sanitation and waste disposal services and schools to integrate dietary and physical education into the school curriculum. The RHNP draft Strategic Plan briefly outlines the roles of different sectors and actors. However, since the RHNP is still at a formative stage, limited progress has been made in working with other sectors to define a package of RHNP interventions and sector responsibility for implementation. Although this is a priority activity in the POW 2008, there is a need for a more concrete plan to take this forward.

- Intersectoral collaboration – Intersectoral collaboration requires leadership and coordination. Progress has been constrained by the inability of the NDPC to fulfil its supra-ministerial coordination role. The MOH has therefore proposed the establishment of an RHN Commission, which will act as a Secretariat and take responsibility for policy and strategy development, leadership and coordination, mobilisation of resources, and monitoring and evaluation. At national level, RHNP activities are currently implemented under the auspices of PPME, MOH.

- District commitment – The RHNP is also intended primarily to be a district level initiative. The MOH expectation is that a district intersectoral committee will be established, under the leadership of the District Chief Executive (DCE), which will take responsibility for planning, coordinating and monitoring RHN activities and that the District Assembly (DA) will take responsibility for financing these activities within the existing district budget. The RHNP progress report does not provide data on the establishment or functioning of district intersectoral committees. Feedback during independent review team field visits indicated that district RHN committees are not active and that health promotion and disease prevention are less of a priority for DAs than provision of tangible infrastructure and services. The findings of the independent review conducted in July-August 2007 indicate that, while pilot districts had developed RHN plans, there had been no progress with implementation, since districts expected funding to be provided by MOH. Depending on DAs to finance RHN may not be feasible.

- District planning – District RHN plans are reported to be comprehensive and budgeted. However, the July-August 2007 review found that plans were developed without the involvement of change agents or advocates, NGOs or the private sector. In some districts visited by the independent review team, the DHMT had little involvement in development of district RHN plans. District health services are unable to take forward RHN because they do not have the mandate to coordinate activities and their participation in DA sub-committees is limited.

- Institutional sustainability – The MOH has highlighted the need to integrate the RHNP into the ongoing work of sectors such as health, education, water and local government, to ensure sustainability. Consideration is being given to
establishing ‘Regenerative Health Friendly’ health facilities and a RHN Centre. Within the health sector, there is a need to identify the roles of different cadres of health worker, including health education and health promotion staff, and different levels of the health system, including CHPS, health centres and hospitals, in particular dietetics units, as well as the role of health workers operating in other sectors, for example, workplace and school health nurses. Clarity concerning roles and responsibilities needs to be supported with appropriate guidance and training. Informants also highlighted the need to clarify how RHN fits with other initiatives that include disease preventive and health promotion such as HIRD and CHPS, and to link activities relating to MCH and nutrition. Within other sectors, there is also a need to identify roles, responsibilities and deliverables.

- Selection and support of change agents – The independent review conducted in July-August 2007 indicated that only a core group of change agents and advocates were active in the wider community. Change agents highlighted the need for materials to support activities, for example, leaflets, for refresher training, supervision and recognition of their work. It will be important to focus future efforts on selecting and training public sector and community actors who are the most effective agents of change, to determine more clearly what they are expected to do, and to identify ways in which their commitment can be maintained. Consideration needs to be given to where responsibility lies for monitoring and supporting change agents and advocates.

- Monitoring progress – It is unclear how progress concerning healthy lifestyles and the impact of RHNP on behaviour and NCD will be monitored, without baseline information, indicators and targets, and a plan for collecting data. Monitoring progress will be critical to measure the impact of RHNP activities, identify which approaches are most effective, and justify allocation of resources. The specific indicators for Strategic Objective 1 relate to water, sanitation and adult obesity. While data on water and sanitation coverage is already collected, it is unclear how data on adult obesity will be obtained, although it is reported that this will be included in the next DHS.

- Financial sustainability – Funding for the RHNP is a key concern and should be a priority for the MOH. The potential to secure resources from the NHIS, which has an interest in preventing disease in order to contain costs, is one option that could be explored. Justification for this will require systematic analysis not only of the impact of RHNP activities but also of the cost of claims for treatment of NCD. A rapid analysis of 3,032 claims made in New Juabeng district in January 2007, cited in the July-August independent review of the RHNP training, showed that hypertension cases accounted for 16% and diabetes cases for 6.7% of claims. There was a significant difference in payments for chronic and infectious diseases, with the former each costing around GH¢ 87,000 and the latter around GH¢ 48,000.

Recommendations

- Identify priority public sector – focus initially on health, education, water, sanitation, NHIA and regulatory agencies – and private sector actors for action on RHN and engage with these actors to mobilise commitment.

- Establish a core intersectoral task force comprising the above under the auspices the proposed RHN Secretariat, to provide leadership in the following areas. Institute a rotating chair for leadership of the Secretariat and task force.
- Define key RHN objectives, indicators and targets at national and district levels – the latter should be integral to district plans.

- Work in partnership with priority public sectors to identify clear roles and responsibilities, in line with objectives, indicators and targets, at national and district level, and integrate these into existing policies, plans and activities.

Specifically:

- Health – engage with GHS to determine roles and responsibilities of health facilities and workers at different levels of the health system, clarify the interface between RHN, HIRD and CHPS, build capacity to provide appropriate community education and facility advice about healthy lifestyle and screening for risk factors for NCD, and strengthen national and district capacity in Health Promotion.
- Education – engage with MOE to integrate healthy lifestyles issues into the school infrastructure and curriculum (for example, school meals, physical education, health education) and to determine roles and responsibilities of local education authorities, schools, head teachers and teachers.
- Water and sanitation – engage with national ministries responsible for water and sanitation to ensure a coherent approach to achievement of POW 2007-2011 indicators related to water and sanitation.
- Local authorities – engage with DAs to clarify roles and responsibilities and build support for specific district government actions to increase access to safe water and food, adequate sanitation and facilities for physical exercise as well as to improve environmental health.
- NHIA – engage with NHIA to explore options for financing health promotion and disease prevention activities.
- Regulatory agencies – engage with regulatory agencies to identify key actions to strengthen enforcement of existing public health legislation.

- Identify the potential contribution and role of the private sector and NGOs (for example, private sector workplace activities, private provider involvement in provision of advice and screening, NGO community education).

- Review the communication and training components of the RHNP.

Specifically:

- Refine the Communication Strategy and develop and implement a plan for targeted communication of healthy lifestyle messages, based on formative research and audience segmentation, through mass and community media.
- Ensure that the communication campaign also includes messages to raise awareness about public health legislation.
- Develop a clear strategy, with objectives and targets, for community mobilisation and clear criteria, based on assessment of the effectiveness of different cadres, for future selection of change agents and advocates for training.
- Review the content of training for change agents and advocates in partnership with Ghanaian experts (for example, in public and environmental health, MCH, NCD and nutrition), and increase Ghanaian involvement in and capacity for training, to ensure that it is consistent with national policies and appropriate to the local context.
- Ensure that training for change agents and advocates includes communication skills as well as factual information and develop a plan to provide follow-up support for change agents and advocates.
• Develop an M&E strategy that includes establishing baseline information and a clear plan for data collection, focusing on using existing information systems where feasible.

Specifically:
  o Consider small sample surveys to collect baseline information about existing knowledge, attitudes and practices (KAP) so that the impact of activities to communicate healthy lifestyle messages can be measured with subsequent KAP surveys.
  o Consider how facility data on the number of people seeking screening for hypertension or diabetes could be used to monitor the impact of messages to promote awareness of NCD.
  o Consider how facility data on NCD and analysis of NHIS claims could be used to monitor progress.

• Take the above steps in order to establish a clear strategy for implementation before scaling up RHNP to other districts.

### 3. HEALTH SERVICES

#### 3.1 Indicators and targets

<table>
<thead>
<tr>
<th>Key results and indicators</th>
<th>2006 achievement</th>
<th>2007 target</th>
<th>2007 performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>% ITN use in U5</td>
<td>41.3% (GHS, NMCP)</td>
<td>60%</td>
<td>58.3% (GHS, NMCP)</td>
</tr>
<tr>
<td>EPI coverage (PENTA-3)</td>
<td>84.2% (GHS)</td>
<td>85%</td>
<td>88%</td>
</tr>
<tr>
<td>TB treatment success rate</td>
<td>72.6% (figure for 2005)</td>
<td>60%</td>
<td>76.1% (figure for 2006)</td>
</tr>
<tr>
<td>No. HIV clients receiving ART</td>
<td>6,000</td>
<td>25,000</td>
<td>13,429 (NACP, MOH)</td>
</tr>
<tr>
<td>Incidence of guinea worm</td>
<td>4,136</td>
<td>&lt;3,500</td>
<td>3,358</td>
</tr>
<tr>
<td>No. districts with established screening programmes (NCD)</td>
<td>0</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>CPR</td>
<td>&gt;800,000</td>
<td>&gt;1,000,000</td>
<td>CYP long term 187,386; CYP short term 765,566</td>
</tr>
<tr>
<td>Proportion deliveries attended by skilled personnel</td>
<td>44.5%</td>
<td>60%</td>
<td>35.1%</td>
</tr>
<tr>
<td>% children 6-59 months receiving vitamin A (once)</td>
<td>81.6%</td>
<td>80%</td>
<td>100%</td>
</tr>
<tr>
<td>% CWC attendants malnourished at 9 months</td>
<td>N/A</td>
<td>Baseline to be established</td>
<td></td>
</tr>
<tr>
<td>OPD attendance per capita</td>
<td>0.52</td>
<td>0.60</td>
<td>0.69 (GHS) 0.58 (MOH)</td>
</tr>
<tr>
<td>Institutional MMR</td>
<td>187/100,000</td>
<td>180/100,000</td>
<td>224/100,000</td>
</tr>
<tr>
<td>No. districts with established ambulance service</td>
<td>13</td>
<td>25</td>
<td>Data not yet available</td>
</tr>
<tr>
<td>No. district hospitals providing care in herbal medicine</td>
<td>N/A</td>
<td>Baseline to be established</td>
<td></td>
</tr>
<tr>
<td>No. clients accessing care at limb fitting centres</td>
<td>N/A</td>
<td>Baseline to be established</td>
<td></td>
</tr>
</tbody>
</table>

There has been good progress in key areas in 2007, in particular in efforts to improve EPI coverage, increase effective TB treatment and eradicate guinea worm. Targets in
these areas were exceeded. Although targets were not met for ITN use or for antiretroviral treatment (ART) for people living with HIV/AIDS (PLHA), the proportion of children sleeping under a treated net has almost doubled and the number of PLHA receiving ART has more than doubled. There was a significant increase in OPD attendance per capita, exceeding the target for 2007, and reflecting the positive impact of expansion of coverage under the NHIS. Indicators relating to maternal health have, however, worsened, with a significant decrease in the proportion of supervised deliveries, from 44.5% in 2006 to 35.1% in 2007, and a significant increase in the institutional maternal mortality ratio from 197/100,000 live births in 2006 to 224,100,000 live births in 2007.

The 2007 POW aimed to implement High Impact Rapid Delivery (HIRD) strategies in order to achieve at least 90% coverage with priority cost-effective interventions and ensure progress towards MDGs 4 and 5. The independent review team was asked to focus on HIRD and on maternal health, in particular low uptake of supervised delivery and FP. Child health is therefore only addressed briefly. A brief review of current policies and strategies for RCH, which was also included in the terms of reference, is summarised in Annex 6.

<table>
<thead>
<tr>
<th>POW 2007: Strategic Objective 2</th>
<th>Progress</th>
</tr>
</thead>
<tbody>
<tr>
<td>Priority activity</td>
<td></td>
</tr>
<tr>
<td>Scale up HIRD to all regions, targeting malaria</td>
<td>HIRD has been scaled up</td>
</tr>
<tr>
<td>Milestone</td>
<td></td>
</tr>
<tr>
<td>All regional HIRD plans finalised during 2007 and incorporated in 2008 plans</td>
<td>HIRD regional planning workshops held in all regions and plans developed</td>
</tr>
</tbody>
</table>

### 3.2 High Impact Rapid Delivery

#### Achievements

- Planning completed – HIRD planning workshops started in 2005 in the four most deprived regions and were conducted in the 6 remaining regions in 2007. Plans and budgets for the last quarter of 2007 and for 2008 have been developed for all districts and Regional Health Authorities (RHAs). Funds were reported to have been released to all districts and regions in September 2007.

- Increased focus on and funding for RCH – HIRD appears to have focused district attention on RCH interventions, largely because it provides specific funding for service delivery. Districts in Upper East Region, for example, reported that HIRD had increased funding available for RCH by as much as 200-300% compared to their usual budget. In Brong-Ahafo Region, some districts reported that HIRD was the only source of funding for RCH.

- Use of HIRD funds – Some districts have used HIRD funding to improve services for women and children, for example, conducting immunisation days, paying NHIS premiums for pregnant women who would not otherwise be able to afford to register, providing incentives for TBAs to refer women for institutional delivery, procuring equipment to improve the quality of ANC, and providing transport and fuel for CHPS outreach work.

#### Key issues and challenges

- Planning and M&E – Planning for HIRD was conducted separately from district health planning. It is unclear why a parallel planning process was required, when
the intention of HIRD is to enhance existing services and activities. The HIRD planning process did not involve hospitals. Consequently there were missed opportunities to ensure that clinical interventions that contribute to reducing maternal and child mortality were included. Lack of district baseline data and weak district capacity for planning were also identified as challenges. There have also been efforts to develop a separate HIRD M&E framework. Again, monitoring of these key interventions should be part of routine district M&E and the DHMIS.

- **Budgeting** – Both planning and budgeting were needs based and districts were supposed to receive 80% of the requested funds initially, with the remaining 20% disbursed upon submission of financial and activity reports. Districts that have not fulfilled the reporting requirement have not received the remaining 20% but in some cases appear not to know why. During field visits, some districts reported that they had not received any funds since the second disbursement in 2007 and are unclear whether, when or what additional funds will be made available.

- **Integration** – Parallel planning and funding has contributed to poor integration of similar activities and a perception at regional and district level that HIRD is a vertical programme. This is exacerbated by the lack of a clear strategy for HIRD and of a clear set of agreed interventions.

- **Inappropriate use of HIRD funds** – Some districts visited by the independent review team have used HIRD funds to fill gaps in item 3 funding for services or to pay for fuel or stationery, repay debts or purchase TV sets for CHPS zones.

**Recommendations**

- Agree and disseminate a package of essential interventions.

- Ensure integration of HIRD planning into district resource-based planning and budgeting processes, and ensure that districts are aware of how much funding is available and when funds will be disbursed.

**3.3 Maternal health**

**Achievements**

- **Antenatal care** – Coverage of ANC is high and there was a slight increase in coverage from 88.4% in 2006 to 89.5% in 2007, although average visits reduced slightly from 3.3 in 2006 to 3.2 in 2007. The latter may reflect efforts to ensure that ANC attendance is no longer double counted; districts introduced a system in 2007 where a pregnant woman uses one health card for all the visits made during pregnancy. A slight increase was observed for first and third trimester registration from 33.5% to 34.8% and 17.4% to 18.6% respectively in 2006 and 2007.

- **Transport and equipment for essential obstetric services** – A comprehensive mapping of essential equipment requirements has been conducted by MOH and a proposal for procurement has been developed and submitted. There has been an increase in the availability of ambulances at district level in some regions (see Annex 7C: Table 4) and further procurement of ambulances is included in Capital Investment Plan III. This is a positive development in terms of the potential to improve access to emergency obstetric care.

- **Promoting supervised delivery** – Districts are using a range of approaches to increase supervised delivery. These include, targeting pregnant women for NHIS
registration and using HIRD funds to pay NHIS premiums for pregnant women, community awareness raising through CHPS zones and CHO outreach education and mobilisation of community leaders, and provision of incentives for TBAs to refer pregnant women to a health facility and to educate women about the importance of delivery with a skilled provider. In some districts in Upper East Region, midwives are conducting home deliveries for women who are unable to deliver at a facility because of family or community attitudes.

- Quality health facilities and health care – Field visits in Upper East and Brong-Ahafo regions indicate that where there have been improvements in the proportion of women delivering in health facilities, this is partly due to the presence of a medical superintendent or obstetrician and gynecologist, as well as of a theatre and a blood bank. The availability of staff and equipment appears to be an important factor in encouraging women to seek supervised delivery.

- DA contribution – DAs are taking steps to improve access to supervised delivery and emergency obstetric care. One DA in Brong-Ahafo Region has upgraded a health centre into a district hospital, funding provision of a blood bank, piped water and staff accommodation. DAs have also funded scholarships for midwifery training to improve availability of skilled attendants at delivery.

- Reintroduction of midwifery training – Steps have been taken to increase the availability of places for midwifery training and this is a positive development. However, as discussed in Section 4, uptake of places has been relatively low.

- Maternal death audit – The proportion of maternal deaths audited has increased from 58.2% in 2006 to 66.7% in 2007. District Directors of Health Services reported to the team that maternal death audit is conducted together with the relevant facility staff. It would be useful, however, for the MOH to review maternal death audit findings in depth, to identify strategies to address the causes of these deaths. Facility based indicators\(^1\) on how many women have been saved will help to monitor and improve the quality of care provided by skilled attendants.

### Key issues and challenges

- Dissemination of policies – While Ghana has a conducive policy framework for improving RCH, there is a lack of awareness of existing policies, especially at implementation level. Dissemination of policies and strategies to districts and facilities is weak. Staff in management positions are more likely to be aware of policies than staff involved in direct service delivery. Regions and districts do not conduct regular monitoring of policy implementation.

- Adolescent ANC attendance – Adolescent registration at ANC declined from 14% in 2005 to 13.2% in 2006 and to 12% in 2007. The reasons for this are unclear and require further investigation. It would be useful, for example, to disaggregate deliveries by facilities and by TBAs by age to help determine whether the reduction in adolescent ANC registration reflects a reduction in the number of pregnant adolescents.

\(^1\) Data that was reviewed seem to suggest that either women came to the health facility very late in their second stage of labour, or that they were very sick and therefore died. It will be important for health providers to improve their life saving skills which can be measured by how many lives they have saved, or what was done to attempt saving the woman.
• Anaemia – The proportion of third trimester registrants with haemoglobin of less than 11g/dl increased from 24.2% in 2006 to 25.7% in 2007, although it is also important to note that some health centres do not have equipment to measure haemoglobin level. The team did not explore this in depth, but the data indicate a need to strengthen malaria diagnosis and treatment, and IPT interventions, for pregnant women.

• Changes in reporting – From 2006, districts started to separate deliveries conducted by TBAs from those conducted by skilled attendants. Completeness of data is still a problem and 2007 data may still include deliveries conducted by TBA, although the level of misclassification is likely to be lower than that in 2006. This may in part explain the decline in supervised deliveries by skilled attendants between 2006 and 2007.

• Inadequate advice – It was reported to the team that health workers neglect discussion of birth preparation and plans for delivery with pregnant women and their families. As a result women go into labour unprepared and without transport plans or money to pay for services if they are not registered with the NHIS.

• Regional and socio-economic disparities – There are significant regional, urban and rural, and socio-economic differences in the proportion of deliveries attended by skilled personnel. Analysis of DHS 2003 data shows that the proportion of home deliveries ranges from 13% in Dangbe West District in Greater Accra Region to 95% in Savelugu-Nanton District in Northern Region. Districts with the highest proportions of home deliveries are concentrated in the three northern regions, which also have the highest levels of poverty. Greater Accra and Ashanti regions, the two most developed regions in Ghana, have the lowest proportions of home deliveries. Home deliveries are higher, at 23%, in Accra Metropolis than in the rest of Greater Accra Region, and this may be due to the growth in peri-urban slum communities. The situation is similar in Ashanti Region, where Kumasi Metropolis has a higher proportion of home deliveries compared to the rest of the region. Though nearly 70% of women had at least 4 ANC visits, the quality of these and related maternal care indices show socio-economic differentials using mother’s education as a proxy.

• Financial barriers – Anecdotal evidence from field visits indicates that the ending of exemptions for delivery care may have contributed to the decrease in supervised deliveries. There was no funding for implementation of the exemption policy for free ANC and delivery care in 2007. Although facilities do not turn away women who cannot pay or who are not registered with the NHIS, health workers believe that inability to pay deters women from delivering at facilities. Health workers also report that women registered with the NHIS tended to present early for delivery whereas unregistered pregnant women report late, including during obstetric emergency. Staff at the regional hospital in Upper East noted that institutional maternal mortality and stillbirths were more likely among unregistered women. Financial factors may also partly explain the apparent increase in the proportion of deliveries attended by a TBA from 13.8% in 2006 to 15.7% in 2007.

• Socio-cultural factors – Field visits also indicate that socio-cultural factors, for example, the need for women to obtain permission to attend health facilities, opposition from men to institutional delivery, and practices such as administering traditional herbs to facilitate quick progress of labour, hinder efforts to increase supervised delivery and reduce maternal mortality.
- Non-availability of services – Non-availability of services is a critical barrier to supervised delivery and to emergency obstetric care. Lack of access to health facilities with appropriate equipment and staff, including obstetricians and midwives, is a particular problem in rural and more remote areas of Ghana. This is exacerbated by lack of a functioning referral system, including transport.

- Role of CHPS – CHPS are intended to provide basic community health care and education through outreach services. CHPS are not intended to substitute for static clinics or health centres or to provide services such as delivery care. However, some CHPS are staffed by midwives who do not conduct deliveries. Given the lack of access to health facilities and shortage of midwives in some districts this represents a missed opportunity to provide supervised delivery by a skilled attendant. The GHS conducted a needs assessment for CHPS roll out in 2007, including staffing and equipment. This could be built upon to include maternal care in specific locations and it will be important to revisit the CHPS roll out strategy in the context of efforts to increase deliveries by skilled attendants and to reduce maternal mortality relating to lack of timely access to supervised delivery.

- Increased Institutional Maternal Mortality Ratio – The increase in IMMR between 2006 and 2007, from 197/100,000 to 224/100,000, is a serious concern. Urgent attention has to be paid to improving the quality of care in health facilities. At the time when the country is encouraging skilled attendance at delivery, health facilities need to ensure that fewer women die when they are in the care of a skilled provider.

- Poor quality of care – Lack of appropriate equipment and facilities for basic emergency obstetric care at many health facilities was reported as one reason why women feel that there is not much difference between delivering at home and at a health centre. A facility survey conducted in Kassena Nankana District found that none of the health centres or clinics met the criteria for basic emergency obstetric care. None could provide assisted vaginal delivery and only two could treat complications of spontaneous or induced abortion. Although these facilities had staff that could perform manual vacuum aspiration, only two had manual vacuum aspirators (Mills, 2007). Stillbirths have reduced in some facilities but generally remained high in northern Ghana. One contributing factor is late referrals, while another is that use of the partograph remains a challenge for many health providers. Poor monitoring of the progress of labour contributes to delay in referring women for further management and consequently to poor neonatal outcomes.

- Process indicators are not captured in reviews – Analysis and use of data appears to poor in most regions. A summary of figures without any analysis is presented and process indicators are not used as part of monitoring process. This makes it difficult to analyse strategies and assess their effectiveness. Better use of data will help in monitoring strategies that aim to decrease institutional maternal mortality and increase institutional deliveries.

Recommendations

- Strengthen dissemination of existing policies on RCH to district and health facility levels and ensure that policies and strategies are integrated into curricula for in-service and pre-service training.
- Use opportunities provided by high ANC attendance to promote the importance of supervised delivery by a skilled attendant, to create awareness of the benefits of NHIS registration, and to provide education about good nutrition, in particular consumption of locally available iron-rich foods, and ITN use during pregnancy.

- Target pregnant women for NHIS registration.
  
  Specifically:
  - Engage with DMHIS to encourage their agents to target pregnant women for registration during the first trimester including through ANC clinics and TBAs.
  - Explore with NHIA and schemes the potential to fast track card issue and active membership for pregnant women.

- Implement a campaign to promote midwifery as a career and uptake of available training places, for example through talks in schools by midwives, publicity in the media, and outreach by midwifery training institutions.

- Explore the potential to upgrade CHPS compounds in strategic locations, i.e. where access to health facilities is limited, to community maternity homes that can provide delivery care as well as ANC and PNC.
  
  Specifically:
  - Review existing CHPS coverage and identify CHPS compounds in locations where access to health facilities is limited.
  - Prioritise deployment of midwives and provision of delivery kits and basic obstetric equipment to these strategic CHPS.
  - Engage with DAs to explore the potential for local authority funding for upgrading of CHPS compounds to maternity homes.

- Identify localities within metropolitan areas with a high proportion of home deliveries and work with local health facilities to develop and implement activities to increase uptake of institutional delivery.

- Strengthen existing efforts to prioritise capital investment in essential obstetric equipment and supplies and transport for emergency obstetric care.

- Encourage the national ambulance service to work with DHMTs to plan priorities for deployment of ambulances, including at zonal level and at health facilities that face the greatest difficulties in referring women for emergency care.

- Encourage CHPS staff and community volunteers to mobilise community-based emergency transport for maternal care.

- Ensure that RHMT and DHMT representation includes medical superintendents or medical officers in charge of RCH and senior midwives and that meetings review MCH indicators, including process indicators, and plan action to address challenges.

### 3.4 Family planning

#### Achievements

- Flexible provision of services – To address negative attitudes towards FP in some areas, including opposition from religious and traditional leaders and from men, health facilities are using innovative approaches to ensure that women have
access to advice and contraceptives, including arranging clinic opening times early in the morning or late in the evening and making home visits.

- Increased health education efforts – Education on FP methods is conducted in facilities and the community, by health providers and CHPS staff. Field visits indicated that health workers are using community leaders to promote FP in the community including working closely with Chiefs and Queen Mothers. Health providers are invited to give talks in schools and this complements the school-based life skills education.

- Positive change – Staff report a slow increase in uptake of FP. One example of a positive change in attitudes towards FP encountered during field visits in Upper East and Brong-Ahafo regions was mothers accompanying adolescents to FP clinics to access services.

**Key issues and challenges**

- Low uptake of FP – Targets for family planning indicators were not met in 2007. Couple Year Protection for short term methods increased from 616,049 in 2006 to 765,566 in 2007. For long term methods there was a dramatic decrease from 276,904 in 2006 to 187,386 in 2007. Although this is attributed in part to the fact that only three regions reported on Jadelle in 2007, the reasons for the decline in use of long term methods need to be explored. The low uptake of FP in Ghana, estimated at 13%, may be a factor contributing to the high incidence of unsafe abortion, which is estimated to account for 22-30% of maternal death in the country. This is significantly higher than the WHO global estimate of 13%.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Target</th>
<th>Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>CYP short term method</td>
<td>1,000,000</td>
<td>765,566</td>
</tr>
<tr>
<td>CYP long term method</td>
<td>300,000</td>
<td>187,386</td>
</tr>
<tr>
<td>FP acceptor rate</td>
<td>28%</td>
<td>24.3%</td>
</tr>
</tbody>
</table>

- Lack of integrated services – The vertical nature of service provision is a challenge. Health workers at antenatal and postnatal clinics either do not discuss FP or refer women to the FP clinic. CHPS staff do not consistently include FP commodities as part of their outreach activities, as provision of FP is considered to be a facility-based intervention.

- Socio-cultural factors – As with institutional delivery, lack of male involvement, as well as opposition from traditional and religious leaders, is critical. In Upper East Region, for example, district health teams noted that there is a preference for large families and that the main religions in the region – Traditionalist, Catholic and Muslim – are all fundamentally opposed to FP.

- Myths and misperceptions – A related factor contributing to low uptake is the persistence of myths about FP. These are rarely addressed by health workers during counseling or health education activities. In some districts visited during the review, staff stated that FP myths are propagated by service providers.

- Provider bias – Some health providers favour particular methods or lack skills to provide advice about or administer other methods. Lack of choice of method can have an adverse effect on uptake of FP. The review team also noted that some health providers use outdated practices, such as insisting that women wait for the onset of their menses before taking a method, which can result in lost clients.
- Long term methods only provided by midwives – Research by Health Research Unit and the Population Council on IUD service delivery in selected CHPS zones found that CHOs achieved lower coverage for long term methods, including IUDs, than midwives because their training does not cover these contraceptive methods.

- Services for adolescents – Most health facilities do not provide FP services for adolescents and young women. Limited efforts have been made to provide peer educators with the knowledge and skills to provide FP advice and methods, an approach that has proven effective in other African countries.

- Financing FP – FP is not covered by the NHIS, so women have to pay for services and contraceptives. In addition, women are sometimes requested to undergo a pregnancy test, which represents an additional expense. These factors affect access to FP, especially among the poor. Lack of inclusion of FP in the NHIS also provides little incentive for private practitioners to offer FP services.

- Funding for commodities – The 2007 POW allocated US$3 million for FP, but it appears that only US$1 million was made available for purchase of contraceptives. In 2007 a Financial Sustainability Plan for contraceptives was developed and adopted by the Inter Agency Coordinating Committee on Commodity Security (ICC/CS). ICC/CS donors averted a potential shortage of male condoms in 2007 – USAID purchased 21 million and UNFPA provided an additional 31 million condoms. Engender Health donated 1,000 Jadelle implants and 2,000 Copper T IUDs. Projections indicate a funding gap of around US$22 million during 2008-2010 (USAID, 2007) unless there is further commitment from DPs. Although UNFPA has indicated it is likely to provide between US$1 million and US$3 million a year over this 3-year period, the funding gap is significant and commodity security remains a challenge.

**Recommendations**

- Integrate FP counseling and services into ANC and PNC to maximise opportunities presented by high ANC attendance and increase uptake of PNC.

- Extend training for long term FP methods to CHOs and integrate FP commodity provision into CHPS outreach activities.

- Develop a joint RCH and HP unit strategy to tackle myths concerning FP.

- Strengthen provision of FP services for adolescents and young women, including through creating awareness of services available, training for health providers, and establishing youth-friendly opening hours.

- Explore with NHIA the potential to cover FP under the NHIS.

- Fully fund RH commodities within POW 2007-2011 procurement plans.

**3.5 Child health**

**Achievements**

- Revision of policies and strategies – The RCH Division of GHS has reviewed and revised child health policies and strategies, establishing a steering committee that included programme managers and unit heads from GHS, MOH, DPs and NGOs.
Situation analysis – Part of the process of policy revision included a situation analysis, which reviewed the current status of child health and child health interventions throughout a continuum including pregnancy, delivery, the neonatal period, infancy and childhood up to age five. The findings of the situation analysis, which will be available in 2008, will inform the revised child health policy for 2008-2011.

Malaria prevention and treatment – As noted earlier, the proportion of under fives sleeping under an ITN more than doubled between 2006 and 2007. The proportion of children suffering from malaria in the last month before the annual NMCP survey was conducted who received appropriate and timely treatment improved from 54% in 2006 to 61% in 2007.

EPI coverage – EPI coverage remained high and improved for some vaccinations in 2007. The proportion of infants who received BCG remained almost the same at 100%, while there was an increase in the proportion of infants who received Penta3 from 84% in 2006 to 88% in 2007. The proportion of children aged 9 months vaccinated against measles increased from 85% in 2006 to 89% in 2007.

Key issues and challenges

Neonatal health – Neonatal mortality remains a challenge, related to the low rate of supervised delivery among other factors. Medical assistants and senior nurses lack the skills to manage neonates appropriately and training in neonatal resuscitation appears to be inadequate. There was an increase in stillbirth and low birth weight rates between 2006 and 2007, from 2.2% to 2.3% and from 6.2% to 6.8% respectively.

IMCI – Field visits indicate that training in first-line management of sick children and IMCI is inadequate, as is monitoring and supervision of care for children provided by health workers. Doctors view IMCI as an approach for lower cadres of health worker.

NHIS registration – The current policy of linking registration of children to registration of their parents restricts access to health care for children of unregistered adults. Some schemes insist that both parents are registered before children can be registered, while others allow registration of children to be linked to that of the mother.

Equity – Data from the MICS 2006 indicates significant regional variations in U5MR and IMR. For example, IMR ranged from 45 in Western Region to 114 in Upper West Region and U5MR from 66 to 191 in the same two regions. There are also significant variations between wealth quintiles, with IMR of 75/1,000 in the poorest quintile and 64 in the richest and U5MR of 118 in the poorest quintile compared with 100 in the richest.

Recommendations

Strengthen child health and IMCI pre-service and in-service training, including for doctors, and upgrade the skills of health providers in hospitals on care of the neonate.
Finalise the analysis of the financial feasibility of decoupling children under the age of 5 years and take steps to implement decoupling so that such children can be registered for free coverage.

### 3.6 Private sector contribution

Private and faith-based health facilities administer approximately 40% of health care services in Ghana, and many provide ANC, FP, delivery, emergency obstetric care and child health services. A national consortium that brings together government and NGOs – R3M – has been established to reduce maternal mortality and morbidity through provision of FP and PAC services. The consortium works with both the public and private sector and advocates for access to comprehensive RH services.

Key issues and challenges include:

- The majority of deliveries in the private sector are conducted by midwives at maternity homes. There appears to be limited collaboration between these private facilities and the MOH.

- Catholic mission hospitals or clinics cannot, for religious reasons, always provide a comprehensive range of RH services. For example, some facilities do not offer FP or safe abortion services.

- RCH data combines public and private sector activity. Data is, however, disaggregated only at the point of collection, and consequently there is no national data on the contribution of the private sector to, for example, supervised deliveries by skilled attendants or FP uptake.

Key opportunities for the private sector and NGOs to contribute to RCH include:

- Private sector involvement in RH and FP services, in particular in creating and responding to market demand. Use of the private sector by wealthier clients could free up scarce public sector resources for those most in need. While GOG and donors cannot mandate private sector expansion and roles, they can create conditions that induce private providers to enter the RH and FP arena.

- Social marketing of contraceptives, ITNs and point-of-use water purification kits is another area where the private not-for-profit sector can support achievement of RCH objectives. Some DPs already fund social marketing activities, subsidising the provision of commodities for the poor, but there is scope for further expansion.

- Private manufacturer involvement in fortification of basic foods with micronutrients, for example fortifying flour and iodising salt, is another way that

  - the private sector can play a role in improving the health of children.
## 4. HEALTH SYSTEM CAPACITY

### 4.1 Indicators and targets

<table>
<thead>
<tr>
<th>Key results and indicators</th>
<th>2006 achievement</th>
<th>2007 target</th>
<th>2007 performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health professional density:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medical Officers</td>
<td>2057</td>
<td>2238</td>
<td>2231</td>
</tr>
<tr>
<td>Pharmacists</td>
<td>1550</td>
<td>1645</td>
<td>1660</td>
</tr>
<tr>
<td>General Nurses</td>
<td>7304</td>
<td>11459</td>
<td>9946</td>
</tr>
<tr>
<td>Midwives</td>
<td>2810</td>
<td>2962</td>
<td>3208</td>
</tr>
<tr>
<td>Community Health Nurses</td>
<td>3246</td>
<td>4275</td>
<td>3732</td>
</tr>
<tr>
<td>Medical Assistants</td>
<td>500</td>
<td>600</td>
<td>535</td>
</tr>
<tr>
<td>Health Care Assistants</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Trained Herbal Practitioners</td>
<td>0</td>
<td>15</td>
<td>9</td>
</tr>
<tr>
<td>Output of training institutions:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medical Officers</td>
<td>250</td>
<td>275</td>
<td>208</td>
</tr>
<tr>
<td>Pharmacists</td>
<td>90</td>
<td>100</td>
<td>136</td>
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<tr>
<td>General Nurses</td>
<td>1500</td>
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<td>1995</td>
</tr>
<tr>
<td>Midwives</td>
<td>200</td>
<td>399</td>
<td>197</td>
</tr>
<tr>
<td>Community Health Nurses</td>
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<td>1388</td>
<td>1478</td>
</tr>
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<td>Medical Assistants</td>
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<td>103</td>
<td>100</td>
</tr>
<tr>
<td>Health Care Assistants</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Trained Herbal Practitioners</td>
<td>15</td>
<td>15</td>
<td>9</td>
</tr>
<tr>
<td>% communities with trained volunteers in IMCI</td>
<td></td>
<td></td>
<td>Data not currently available</td>
</tr>
<tr>
<td>% facilities with 100% tracer drugs availability</td>
<td>73.8%</td>
<td></td>
<td>N/A as indicator changed in final POW 2007-2011/POW 2008 to % RMS; data not currently available</td>
</tr>
<tr>
<td>% districts with appointed Health Information Officer</td>
<td>33%</td>
<td>51%</td>
<td>62.5%</td>
</tr>
<tr>
<td>District level capacity index (to be defined based on standards)</td>
<td>N/A</td>
<td>Baseline to be established</td>
<td>Indicator not included in final POW 2007-2011</td>
</tr>
<tr>
<td>% districts with minimum health infrastructure (access to services)</td>
<td>N/A</td>
<td>Establishing baseline including definition of minimum health infrastructure</td>
<td>N/A as indicator changed in final POW 2007-2011 POW 2008 to % population within 8 km of health facility</td>
</tr>
</tbody>
</table>

Source: HRH Directorate and RSMID, MOH

As with Strategic Objective 1, indicators for 2007 were provisional and the POW 2008 indicators for Strategic Objective 3 will be used to measure progress on an annual basis during the remainder of the Five Year POW (2007-2011). Figures available show progress overall in 2007 in numbers of key health cadres and in production of General Nurses, Community Health Nurses (CHN) and Medical Assistants. However, it is important to note that: 2007 figures from the private sector are not yet available, affecting the 2007 actual achievement. CHN figures are from payroll and further verification is ongoing. Doctor output figures are lower than actual because some students were referred, and some interns have not been registered. The response for enrolment in midwifery training was poor in 2007.
### Priority activity

<table>
<thead>
<tr>
<th>Priority activity</th>
<th>Milestones</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rationalise salaries of health workers</td>
<td>Salaries were rationalised.</td>
</tr>
<tr>
<td>By end of 2007 new pay structure fully implemented; HRD strategy completed and approved by government</td>
<td>New pay structure implemented, although some administrative issues and anomalies still to be addressed; HRD strategy completed.</td>
</tr>
</tbody>
</table>

### 4.2 Human resources for health

#### Achievements

- **Human resources planning and deployment** – Human Resource Policies and Strategies 2007-2011 and a HRH Scaling Up Cost Assessment 2007-2011, released by the MOH in 2007, provide a policy framework and projections of staff requirements for the Five Year POW. Projections are based on 2011 service delivery targets, planned expansion of facilities and population to staff ratios. A workforce observatory has been established.

- **Salary rationalisation** – Until 2006, personnel remuneration was based on the government-wide Ghana Universal Scale. Remuneration included the Additional Duty Hour Allowance (ADHA), which was financially unsustainable. Following a job evaluation exercise in 2005, the MOH implemented a salary rationalisation programme from mid-2006, which abolished the ADHA and increased salaries. Notwithstanding administrative issues, discussed below, most staff are satisfied with the new salary structure. Abolition of the ADHA has reduced the administrative work load for managers. Salary rationalisation is reported to have reduced staff attrition, but data to verify this are not yet available as monitoring of the impact of salary increases on retention, distribution, motivation and productivity in the health sector is planned for 2008. Salary rationalisation also provides a platform for the introduction of performance management, to enhance quality and efficiency of service delivery.

- **Reduced attrition** – There was a downward trend in attrition rates of nurses and doctors in KATH and staff of GHS from 2003 to 2006 (Human Resource Policies and Strategies 2007-2011). Figures show a significant reduction of KATH doctors’ attrition through vacation of posts 2002-2005 and of attrition through resignation and vacation of post by nurses 2003-2006 at the same hospital. However, attrition of GHS staff 2003-2006 through retirement remained high, consistent with the ageing work force (see below).

- **Payroll cleaning** – A head count was conducted to clean the payroll which identified approximately 6,000 ‘ghost’ workers. A verification exercise, to distinguish staff who were not enumerated from ghost workers, will be completed by the end of March 2008.

- **Performance appraisal** – The new performance appraisal system was pre-tested in four regions and is expected to be rolled out nationally in 2008. District Directors of Health Services (DDHS) and Medical Superintendents have 4-year deployment arrangements with annual targets agreed with the Regional Health Authority (RHA).

- **Health worker production** – Middle level training schools increased in 2007 from 7 to 14, although the planned accreditation of regional and district health training sites to rapidly deploy post graduate students to rural areas in collaboration with
GCPS has been rescheduled to 2008. As noted above, targets for increased production of General Nurses, Community Health Nurses (CHN) and Medical Assistants were met or exceeded in 2007. The Ministry of Manpower, Youth and Development trained 1,500 Health Extension Workers. District Assemblies (DAs) are increasingly providing scholarship funds for medical and nursing training, to increase the availability of local skilled staff in health facilities.

- Deployment – A Central Deployment Committee has been established and dialogue with key stakeholders is underway to implement a policy on compulsory rural deployment for a given period.

**Key issues and challenges**

- Salary rationalisation implementation – The salary rationalisation programme has faced some administrative challenges, which principally relate to placement of staff in appropriate levels, and there are reported to be delays in addressing grading anomalies. These issues are currently being addressed by a Fair Wages Commission established by the GOG.

- Performance management – The original intention was to implement salary rationalisation in tandem with the introduction of performance management and a knowledge and skills framework (including job descriptions and required competencies). However, to avert an impending strike by doctors, the rationalisation programme was implemented hurriedly and without being linked to the other components. Subsequent efforts have focused on addressing managerial challenges rather than rolling out a comprehensive performance management system to improve productivity. Although performance targets are set every year by districts with the RHA, there is no performance accountability system across the continuum. The April 2007 Aide Memoire agreed to start the measurement of performance in human resource management using the proposed indicators in the annual review report, but there is no indication that this has occurred. Performance management is, however, one of the priorities in the 2008 POW. Productivity is also a critical concern of the MOH, but there is as yet no clear strategy for measuring or improving productivity. The review had hoped to conduct an initial productivity analysis, but data was not yet available.
**Staff distribution –** The inequitable distribution of health personnel in Ghana is a serious challenge. Geographic distribution of nurses and doctors by agency is concentrated in Greater Accra as well as in the KBATH and KATH. Regional population per staff of selected key cadres in 2005 and 2006 (without factoring in facility distribution and work load as indicators of staff distribution) shows wide regional disparities. While there was some improvement during 2005-2006, especially for midwives (see Annex 7A: Table 1 and above), a more mixed pattern is observed for nurses and Medical Officers (see Annex 7A: Tables 2-4). Western, Northern, Upper West and Brong-Ahafo regions have a relatively higher ratio for these cadres. It would be useful to assess the trend over 3 years, inclusive of 2007 data, when this is available. Funds were shifted in 2007 from the Deprieved Area Incentive Allowance, which was not having the desired impact, to works in selected training schools. However, inequity in staff distribution is recognised as an issue by the MOH and addressing this is included in the remit of the Central Deployment Committee.

**Staff recruitment and retention –** Recruitment and retention of staff is a particular challenge in hard to reach districts. Inadequate staff accommodation is a critical factor. Where accommodation is available, staff are now expected to pay rent to local authorities. This is likely to exacerbate retention challenges. Health professionals are also unwilling to move to areas where there are limited educational opportunities for their children.

<table>
<thead>
<tr>
<th>Year</th>
<th>Ghana population</th>
<th>OPD attendance</th>
<th>OPD per capita</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>19,973,609</td>
<td>9,753,634</td>
<td>0.488</td>
</tr>
<tr>
<td>2003</td>
<td>20,529,412</td>
<td>10,219,021</td>
<td>0.5</td>
</tr>
<tr>
<td>2004</td>
<td>21,102,667</td>
<td>11,074,213</td>
<td>0.52</td>
</tr>
<tr>
<td>2005</td>
<td>21,693,973</td>
<td>11,650,183</td>
<td>0.54</td>
</tr>
<tr>
<td>2006</td>
<td>22,303,947</td>
<td>12,241,163</td>
<td>0.55</td>
</tr>
<tr>
<td>2007</td>
<td>22,933,235</td>
<td>15,712,070</td>
<td>0.69</td>
</tr>
</tbody>
</table>

Source: CHIM
- Increased staff work load – The expansion of the NHIS has significantly increased demand for health services, as evidence by increased utilisation rates (see above). Staff in facilities visited by the independent review team reported that OPD attendance had doubled since the introduction of the NHIS. This has increased work load in facilities that already experience shortages of staff.

- Ageing work force – Ghana is facing a succession challenge. Most Medical Assistants and Enrolled Nurses are aged 40-60 with fewer than 10% in younger age groups (Human Resource Policies and Strategies 2007-2011). Despite efforts to increase the availability of midwifery training, uptake of training places during 2007 was low. In Upper East Region, RHMT figures show that 45% of nurses are in the 45-54 year age block and 80% of doctors in the 50-59 year age block. This distribution pattern is due partly to inadequate staff retention in underserved areas and partly to the posting process. Staff are posted centrally, but move to other areas after receiving their reporting letter.

- Staffing norms – The last staffing norms exercise was conducted in 1992, although MOH attempted a review in 2003.

**Recommendations**

- Complete implementation of the salary rationalisation programme.

  Specifically:
  - Address immediately outstanding managerial and administrative issues related to the new salary structure.
  - Determine and compare attrition trends before and since the introduction of salary rationalisation.

- Strengthen performance-based management on the basis of resource-based district, hospital and regional negotiated targets that are consolidated into national targets in one plan and monitoring framework, guiding the different levels to regularly review performance and be held accountable for results consistent with government-wide procedures.

  Specifically:
  - Implement the already developed performance appraisal system, linked with sector targets.
  - Promote and deploy staff based on attained performance.
  - Introduce an annual recognition and reward system, which is independently verified.

- Take steps to enhance productivity.

  Specifically:
  - Conduct a review of approaches used to measure and improve productivity in other countries.
  - Conduct a productivity study, to determine current productivity and identify scope for improvement, taking account of local context and challenges.
  - Introduce job descriptions with appropriate skills and competencies, linked to sector, region, district, agency and programme objectives and targets.
  - Link productivity enhancement measures to performance-based management.
Strengthen human resource planning and projections through a review of staffing norms.

Specifically, review staffing norms in view of:
- Sector objectives set out in the POW 2007-2011.
- Quality and efficiency input requirements of the NHIS.
- Increased work load due to increased facility utilisation.
- Findings of the review of CHPS functions (see Section 3).
- Geographic and age distribution patterns with a focus on the specific needs of deprived areas and population groups.
- Use of work load and demand rather than population.

Develop and implement a plan to address inequitable staff distribution.

Specifically:
- Identify priority staffing needs in deprived areas, based on the above review of staffing norms.
- Develop, implement and monitor the impact of innovative and region-specific, non-financial recruitment and retention mechanisms – for example, bonding, fast track promotion, training opportunities and other proposals included in the 2006 independent review report.
- Work with DAs to develop a strategic approach to provision of scholarship funding and construction of staff accommodation by local authorities.
- Strengthen regional human resource management, in particular payroll management, to ensure that staff reporting for duty remain in post.

4.3 Health Management Information System

Achievements

- Strategic Plan – The POW 2007 priority with regard to health information was: ‘to generate and use evidence for decision making, programme development, resource allocation and management through research, statistics, information management and deployment of ICT’. A draft Health Information Management Strategic Plan 2007-2011 has been developed with the aim of improving access to health information, improving the quality of health information, and supporting decision making.

- Legal and policy framework – A draft framework has been developed to streamline the ethics of reporting health information within and across different levels of health administration to better respond to MDBS information requirements. The MOH is working with the Attorney General’s office to finalise the draft and facilitate the process of legislation.

- Research agenda – A draft research agenda for the Five Year POW, which will provide the basis for linking research to policy and operational issues, has been developed and is currently being reviewed by key stakeholders.

- Introduction of DHIMS – The sector has made good progress in developing a robust data management system. A District Health Information Management System (DHIMS) was introduced in 2007, following the recommendation of the July 2006 Aide Memoire to conduct an assessment of the national and sub-national systems by the end of 2006, and a process of rationalising data collection tools and developing a comprehensive data reporting platform. The
DHIMS, an important milestone in data management, especially for sector wide indicators, is a health data repository with simplified reporting forms using standardised entries and automated calculations. Health Information Officer (HIO) positions have been established at district level and efforts made to recruit and deploy staff; the proportion of districts with an appointed HIO increased from 55% in 2006 to 62.5% in 2007.

- Health Service System Database – The sector has also introduced a public health information system at regional and district level. Indicators for RH, EPI, malaria and child health have been agreed, software has been developed, and staff have been trained to use the system at district and regional levels.

Key issues and challenges

- Parallel systems – The Health Service System Database that was introduced at regional and district level in the last quarter of 2007 is running parallel to the DHIMS software, which was introduced in the first quarter of 2007, despite the fact that many indicators are common to both systems. Maintaining two systems at regional and district level is contributing to duplication of effort and undermining the principle of establishing a single repository. This may compromise timeliness of data and the quality of data management (see current information flow in Annex 7B: Figure 1), and jeopardise the streamlining of HMIS.

- Use of data for decision making – The repositories do not yet produce summary performance statements for district use and hence serve only as a path for data acquisition by the centre. As a result, districts have developed a further parallel method of summarising the information required for decision making (see example in Annex 7B: Table 1). This is a serious issue as it will verticalise information flows and information for district decision making is not standardised.

- Lack of IT support – Districts visited by the independent review team reported technical problems with the Health Service System Database software. This has contributed to delays in submission of data, for example, the RHMT in Upper East had received no information from districts for January 2008 as of the third week of March. Information technology support for districts is inadequate. Data from the Health Service System Database is received by the Public Health Division, and verified by RSIMD and CHIM before it is returned to the programme.

- Staff shortages – The effective functioning of district and regional repositories is threatened by the acute shortage of health management information staff. Most health facilities and some districts do not have qualified health information staff. It is estimated that training the number of staff required will take 18 years. In the meantime, although statisticians are being recruited to help bridge the gap, facility and district disease control and community health staff are performing data collection, entry and submission. This is adversely affecting performance of routine health duties, especially in facilities and districts with staff shortages.

- Completeness of implementation and of data – The repository system is intended for all providers but is currently confined to service delivery. Although the Research Statistics and Information Management Directorate (RSIMD) and Centre for Health Information Management (CHIM) are expected to play a pivotal role in providing vital sector information, resources allocated are inadequate to enable these institutions to fulfil their mandates, especially the additional responsibility of MDBS information requirements. Completeness of data from
health facilities and reporting from private sector continues to be a challenge, but is expected to improve after the necessary legal framework is established.

- **Equity** – There is a need to ensure that the health management system is able to detect inequities in areas such as allocation of resources, service outputs and quality of care. Aggregate figures for regions may conceal inequities within regions, including between districts and between socio-economic groups within districts.

**Recommendations**

- **Urgently bring together the two systems into one repository to avoid duplication and enhance data management efficiency and effectiveness.**
  
  Specifically:
  - Establish single district and regional repositories.
  - Resource the district, hospital, regional and national information system to enable it to provide quality and timely health information.
  - Develop a Central Health Data Repository at CHIM as contained in the draft Health Information Strategic Plan.
  - Require RSIMD/CHIM to provide monthly information to all programmes and quarterly summary reports to defined stakeholders that require information for decision making to avoid the need for establishing a parallel system.

- **Improve the DHIMS database so that it can generate information to inform decision making and regular performance review meetings.**
  
  Specifically:
  - Provide IT support to ensure that the DHMIS can generate district, hospital and regional health performance summary statements.

- **Address staffing issues.**
  
  Specifically:
  - Identify districts with a shortage of health information staff and deploy and use existing trained staff strategically to provide targeted support and supervision to staff involved in district and hospital data management.
  - Institute systematic investment in the development of data management capabilities rather than programme-focused and specific indicators.

- **Enhance analysis and use of information**
  
  Specifically:
  - Ensure districts and regions use information during performance review meetings to analyse trends and determine required action by managers and service providers (see Annex 7B: Figure 2).

- **Explore in the short to medium-term ways of incorporating management data into DHIMS to facilitate sector-wide reporting.**
  
  Specifically:
  - Explore how DHMIS fields could be expanded to incorporate the specific insurance indicators required by the proposed NHIS MIS.
  - Review other sector inputs (e.g. human resources, financing) and mechanisms for incorporating them into the DHIMS.
4.4 Capital investment

Achievements

- **Capital Investment Plan** – The Final Draft Capital Investment Plan (CIP) III was developed and discussed with key stakeholders. The CIP is based on three scenarios: i) maintaining the current levels of services; ii) limited expansion of health infrastructure and services; and iii) fully expanding the health infrastructure and services. CIP III objectives are to keep existing facilities and institutions functional and operational, to increase the scope of services consistent with the needs of the population, and to increase geographical access. Steps have been taken, as discussed below, to address these three priorities.

- **Reduction of debt** – Prudent management reduced capital investment debt from GH¢7.0 million in 2005 to GH¢0 by early 2008. In view of the reduction of available funds for capital investment in 2007 (see Annex 7C: Tables 1-3) and the annual growth of unpaid bills, the MOH developed prioritisation and allocation criteria. These prioritised: projects requiring counterpart funding due to bilateral agreements; projects procured under ICB with legal implications for delayed payments; payment of all outstanding bills; projects earmarked for completion in 2007; projects urgently required in deprived areas especially those that address NHIS demands and completion of suspended and/or abandoned projects that address health-related MDGs.

- **Construction and rehabilitation** – During 2007, 13 hospital construction and/or rehabilitation projects were completed and handed over, and construction of 22 health centres and upgrading of 3 health centres commenced. Ongoing expansion, rehabilitation and/or new works were commenced in 5 new middle level training institutions whilst 9 others were completed during the same period. In addition, districts have received infrastructure support from DAs, mainly for construction and/or rehabilitation of CHPS compounds, staff quarters and office accommodation.

- **Vehicles and equipment** – CIP III includes budget lines for ambulances, general vehicles, and basic equipment for delivery care, although the allocation for these items is limited. Transport Operational Guidelines were finalised in October 2007 to complement the 2005 Transport Policy. These simple and user friendly guidelines for MOH and affiliate transport units provide the procedures for implementing the Policy.

- **Systems and surveys** – Most planned activities, such as establishment of an expenditure and tracking system and separately a service and availability system, were completed and are in use as planning and monitoring tools, although their documentation is still being finalised. Training on the Health Service Planning Methodology and Framework was conducted in 9 of the 10 regions. A survey of all abandoned or suspended infrastructure projects was undertaken with a view to reactivating and completing relevant projects.

- **PPM** – A policy was issued on setting aside a proportion of service delivery funds at district level for Planned Preventive Maintenance (PPM) of equipment. All agencies have functional estate management units that conduct PPM and have a budget.
Key issues and challenges

- **Budget constraints** – Inadequate funding and over-centralisation of the payment of works – payments are processed by MOFEP – were key constraints for the 2007 CIP. The budget was undermined by cost overruns resulting from unpaid bills from the previous year’s expenditure. Budgeted activities were affected as priority was given to settling pending bills and to the over 200 on-going capital projects. The 2007 CIP was further affected by the energy crisis that necessitated a 25% reduction of budgeted GOG funds and subsequent disbursement delay by MOFEP of GH¢1,777,000 until February 2008. Protracted negotiation on the value for money audit of the Tamale Teaching Hospital led to re-voting of the adjusted budget for disbursement in 2008. Due to budgetary constraints, most ICT activities were put on hold in 2007.

- **Poor state of vehicles** – Although 399 vehicles are available, only 75% are reported as being roadworthy (see Annex 7C: Table 4). Review of the regional vehicle and motorbikes status in the CIP indicates that in all regions, the majority of vehicles have been in operation for 5-10 years and the majority of motorbikes for 4-10 years (see Annex 7C: Figures 1 and 2). District visits by the independent review team indicated that most vehicles are over 5 years and are frequently off the road undergoing expensive repairs. There are regional disparities in the availability of roadworthy vehicles as well as in the availability of ambulances (see Annex 7C: Table 4).

- **PPM of buildings** – Guidelines on PPM of buildings have not yet been issued to complement the equipment guidelines and guide investment in PPM. Information obtained from agencies is neither timely nor complete.

- **Increasing demands** – There is a growing need for capital investment, to address deterioration of existing health infrastructure, provide staff accommodation and infrastructure coverage in deprived areas, expand and improve the quality of existing facilities to meet increased demand created by the NHIS, and replace or upgrade vehicles and equipment. However, given existing commitments, which appear to concentrate on tertiary facilities and training institutions, and budget constraints, there is little scope to address these areas or to redress inequity.

- **Diminishing fungible resources** – In the light of diminishing fungible resources for capital investment, CIP III provides 3 priorities and 3 financing scenarios. The following shows links between sector capital investment requirements and the 3 strategic CIP III priorities that would complement the 3 financing scenarios.

<table>
<thead>
<tr>
<th>CIP III Priority</th>
<th>Status</th>
<th>Opportunities for improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>To keep existing facilities/institutions functional/operational</td>
<td>Instruction on district/hospital budget allocation for equipment PPM</td>
<td>1. Holistic PPM procedures and budgetary allocation guidelines and training to institute a PPM culture</td>
</tr>
<tr>
<td>To increase scope of services consistent with the needs of the</td>
<td>CIP III planned investment with 3 scenarios; District Assemblies funding district projects</td>
<td>1. Institute strategies for early submission of proposals by districts to the DAs for funding of CHPS, health centres, district hospitals and staff accommodation and incorporation in annual CIP planning (bottom-up resource-based planning).</td>
</tr>
</tbody>
</table>
population from community to district hospital for safe motherhood and child health care.

3. Resource mobilisation for priority projects in line with MDGs with a focus on safe motherhood, child health: (i) equipment (ii) infrastructure (iii) referral and (iv) supportive supervisory requirements.

| To increase geographical access | Construction of CHPS/maternity homes, health centres in deprived areas | 1. Define CHPS to be upgraded into maternity homes in hard-to-reach areas.
2. Construction of fully financed health centres in underserved areas. |

### Recommendations

- Relate CIP III priorities to the 3 scenarios by applying the following resource allocation criteria:

  1. **1st call on available resources:**
     - Complete on-going projects.
     - Infrastructure (theatre in district hospitals, maternities), equipment, ambulances to support safe motherhood and child health in the continuum of care from CHPS to district hospitals.
     - Upgrading of CHPS into maternity homes in defined hard-to-reach areas.

  2. **2nd call on available resources:**
     - Vehicles for supportive supervision.
     - Construction of health centres, district hospitals and staff accommodation in underserved areas.

  3. **3rd call on available resources**
     - Training institutions.
     - ICT.

- Enter into dialogue with MOFEP on acceptable decentralised capital investment payment mechanisms to enhance expenditure effectiveness.

- Develop an overview of the total resource envelope for district capital investment.

  **Specifically**
  - Ensure that all DHMTs submit timely proposals to DAs for consideration and inclusion in district annual capital investment plans and budgets.
  - Incorporate annual planned district capital investment in the health sector into the annual CIP to arrive at an integrated MOH and DA capital investment plan and budget.

- Develop a medium-to-long-term capital investment plan that prioritises addressing inequities and achievement of MDG 4 and MDG 5.

  **Specifically:**
  - Use the Service Availability Mapping and Health Service Planning Methodology and Framework to identify priorities for upgrading or expansion of facilities, equipment and staff accommodation in deprived areas.
  - Develop a budget and resource mobilisation strategy, including exploring the potential to generate additional funding for CHPS, health centres and district hospitals in deprived areas from DAs, DPs and other financing sources.
  - Prioritise equipment and transport required to provide a continuum of MCH care from community to district hospital level.
• Strengthen PPM.

Specifically:
- Develop comprehensive PPM procedures and budgetary allocation guidelines for plant and equipment.
- Finalise guidelines on PPM, including investment, for buildings.
- Implement PPM guidelines and provide training and technical support to instil a PPM culture.
- Monitor implementation of guidance on setting aside service delivery funding for PPM of equipment.

4.5 Procurement and logistics

Achievements

• Effective logistics system – Essential medicines and supplies, with the exception of vaccines, are distributed through the national logistics system. The system is working well and in general facilities do not experience stock outs. Regular and reliable supplies have provided a sound basis for the introduction and expansion of the NHIS – the system appears to have coped well with increased demand. The trend of medicines availability in RMS using tracer drugs as an indicator as shown below has been above 70%. The indicator in the POW 2007 has been modified to a more sensitive indicator of medicines availability – percentage of facilities with 100% tracer drug availability, but data for 2007 is not yet available.

<table>
<thead>
<tr>
<th>Year</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>% tracer drugs</td>
<td>70</td>
<td>85</td>
<td>93</td>
<td>80</td>
<td>89</td>
<td>74</td>
</tr>
</tbody>
</table>

Source: GHS 2006 Annual Report

Key issues and challenges

• Delivery – MOH policy indicates that it is the responsibility of Central Medical Stores (CMS) to deliver to Regional Medical Stores (RMS), and in turn of RMS to deliver to district facilities. In practice, CMS is not delivering to all RMS, requiring RMS to make specific trips to Accra to collect supplies. Upper East RMS, for example, makes a regular 1,620 km return journey from Bolgatanga to Accra to collect supplies. This is not an efficient use of resources, including vehicles and staff time, and reduces the ability of the RMS to deliver to facilities. It also appears that RMS are not delivering to facilities in some regions. In some cases, facilities have to make several trips to order and collect supplies, and again this represents an additional cost to the facility in terms of time and fuel, as well as adding to pressure on a limited pool of serviceable vehicles.

• RMS capacity – RMS report shortages of appropriate transport, e.g. 3 ton closed vehicles, and inadequate numbers of trained staff, e.g. RMS require a minimum of two staff to ensure that the store is staffed while deliveries are being made. Some RMS have inadequate storage facilities, although this may be partly addressed if distribution becomes more efficient.

• RH commodity security – As discussed in Section 3, there are concerns about medium and long term security of procurement and supply of RH commodities.
Recommendations

- Ensure that CMS delivers to all RMS and that all RMS deliver to all facilities within their region in accordance with national policy.

- Explore ways of increasing the efficiency of supplies distribution from RMS to health facilities.

  Specifically:
  - Assess the feasibility and cost-efficiency of outsourcing.
  - Identify lessons that could be applied from private sector practice.

- Plan and budget for RMS to be properly resourced, including with appropriate vehicles and staff capacity, and explore NHIF funding for required vehicles to improve quality of service.

- In the medium-term, maintain the EPI delivery parallel system to avoid disruption whilst improving the overall logistics system.

- Ensure that RH commodities are fully funded within POW 2007-2011 procurement plans.

5. GOVERNANCE, PARTNERSHIPS AND FINANCING

5.1 Indicators and targets

<table>
<thead>
<tr>
<th>Key results and indicators</th>
<th>2006 achievement</th>
<th>2007 target</th>
<th>2007 achievement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total expenditure on health as a % of GDP</td>
<td>4.4%</td>
<td>Baseline to be established</td>
<td>Data for 2007 not yet available</td>
</tr>
<tr>
<td>Per capita total expenditure on health</td>
<td>N/A (2006 review says $25.4)</td>
<td>Baseline to be established</td>
<td>Data for 2007 not yet available</td>
</tr>
<tr>
<td>Per capita NHIS in reserve</td>
<td>N/A</td>
<td>Baseline to be established</td>
<td>Data for 2007 not yet available</td>
</tr>
<tr>
<td>Execution rate of GOG and Health Fund expenditure for services (item 3) improved</td>
<td>GOG 74.2%</td>
<td>Baseline to be established</td>
<td>GOG 93.8% HF 243.9%</td>
</tr>
<tr>
<td>GOG expenditure for services (item 3) increased for 2007 compared with 2006</td>
<td>GH¢ 5.46 million (release)</td>
<td>Baseline to be established</td>
<td>GH¢ 6.59 million (release) i.e. 21% increase in nominal terms</td>
</tr>
<tr>
<td>50% of districts spend at least 1% of District Assembly Common Fund on HIV/AIDS</td>
<td>N/A</td>
<td>Baseline to be established</td>
<td>Data for 2007 not yet available</td>
</tr>
<tr>
<td>% GOG budget spent on health</td>
<td>15% (2006 review says 18%)</td>
<td>15.5%</td>
<td>Data for 2007 not yet available</td>
</tr>
<tr>
<td>% GOG recurrent budget spent on health</td>
<td>14.5% (2006 review says 14%)</td>
<td>15.5%</td>
<td>Data for 2007 not yet available</td>
</tr>
<tr>
<td>Proportion of non-wage recurrent budget spent at district level</td>
<td>48% (2006 review says 40%)</td>
<td>48%</td>
<td>Disbursed 66% of item 3 (excludes HIPC)</td>
</tr>
<tr>
<td>% donor funds earmarked</td>
<td>43.6% (2006 review says 61%)</td>
<td>40%</td>
<td>39.5%</td>
</tr>
<tr>
<td>% recurrent budget spent</td>
<td>8% (2006 review)</td>
<td>10%</td>
<td>Data for 2007 not</td>
</tr>
</tbody>
</table>
The main challenge in reporting on POW 2007 indicators at the time of the independent review was the non-availability of much of the required data. For some indicators this was an issue of timing, in particular the fact that the Financial Statement of the MOH was not yet finalised. This is a perennial problem, related in part to financial management software and capacity, particularly at lower level BMCs.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of population including indigents and other exempt categories issued with ID cards</td>
<td>18%</td>
<td>36%</td>
<td>42%</td>
</tr>
<tr>
<td>Productivity (workforce productivity index)</td>
<td>N/A</td>
<td>Baseline to be established</td>
<td></td>
</tr>
<tr>
<td>Equity (index) Outcomes:</td>
<td>N/A</td>
<td>Baseline to be established</td>
<td></td>
</tr>
<tr>
<td>- U5 mortality ratio (rural, urban, regional)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Staff population ratio (rural, urban, regional)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Country Policy Institutional Assessment index</td>
<td>N/A</td>
<td>Baseline to be established</td>
<td></td>
</tr>
<tr>
<td>Public Expenditure Financial Analysis index</td>
<td>N/A</td>
<td>Baseline to be established</td>
<td></td>
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</table>

**5.2 Sector financing**

**Achievements**

- **Budget support** – The continuing shift by DPs to budget support as the means for financing for the sector – or the GPRS as a whole – is in line with the Ghana Joint Assistance Strategy (developed by GOG and partners), the Paris Declaration, and the Ghana Harmonisation and Alignment Plan, and is therefore a positive development. DFID released GH¢ 14.1 million through MOFEP during 2007 and Danida confirmed the move to SBS in their new programme document for the period 2008-2012. The team was informed by MOFEP officials that, while being channelled through government systems, such support is effectively earmarked for non-salary spending in the sector, and it should therefore also provide a more predictable source of service funding. Concerns that SBS might be allocated to item 1 should be addressed through routine monitoring of releases and expenditures, and improved dialogue on the same between partners.

- **Earmarked funding** – Data from the draft 2007 Financial Statement indicate that the proportion of total DP funding which was earmarked reduced slightly from 43.5% in 2006 to 39.5% in 2007. While bearing in mind that this reflects only what is captured “on-account” and may be inconsistent with other sources, the movement is in the desired direction.
NHIS sector financing – The growth of NHIS funding as a share of sector financing has been significant, increasing from 5% in 2006 to a projected 29% in 2007. With clinical care increasingly funded through the NHIS, the sector has been able to focus item 3 funding on preventive and promotive activities. Earmarked funding for priority interventions has been harnessed through HIRD and has facilitated improved service delivery at district level, as reported in Section 3. NHIA data show that subsidy support to DMHIS grew from GH¢ 35.0 million in 2006 to GH¢ 86.8 million in 2007, i.e. by 150%. However, it is worth noting that distress support increased even faster, from GH¢ 1.3 million in 2006 to GH¢ 9.3 million in 2007, i.e. by 600%.

Plan for Health Financing Strategy – There is both recognition and agreement on the need for development of a comprehensive financing strategy for the sector, as recommended in the April 2007 Aide Memoire, and technical assistance has been recruited to assist in the task of moving this agenda forward during 2008.

Key issues and challenges

Lack of an overview – It proved difficult to obtain a consistent and comprehensive overview of the financing to the sector in recent years, mainly due to time and data constraints. The mismatch between funding captured on-plan (POW), on-budget (MTEF) and on-account (Financial Statement) is significant and restricts analysis. The lack of an overview of sector financing – sources, flows, uses – has been raised as an issue several times in recent years. This, together with other issues identified below, is recognised by the MOH and efforts are being made to address these issues, as clearly shown in successive POWs and Aide Memoires. The April 2007 Summit Aide Memoire indicated that the MOH would establish a Health Financing Task Force to review the current situation and prepare a health financing strategy by the end of 2007. The fact that this has not happened, despite a motivated and skilled team within MOH and its agencies, points to capacity constraints. Such an overview is however, essential to strengthen the financial base for the sector, ensure that allocations are in line with priorities, and to link financial resources with improving outputs and outcomes.

Increased complexity and fragmentation – The fragmentation of non-SBS sources of external funding to the sector is of concern. Information on such funding potentially available to the sector varies by source, both in completeness and sometimes in value, although this challenge is not limited to earmarked funding alone. This often goes hand in hand with limited predictability about the timing of inflows of such funding to the sector, which is reflected in a mismatch between budgeted funds which are used in planning and eventual total releases to and expenditures within the sector. Fragmented financing, in particular the increased reliance on earmarked funding for non-clinical and non-curative services, does not support comprehensive planning and budgeting at BMC level.

MOH dialogue with MOFEP – 80% of funding from MOFEP goes into PE and investment items over which MOH has no control. However, MOH needs better capacity for dialogue with MOFEP, given the continuing DP shift to MDBS.

Distinction between IGF sources – Although there has been some progress in BMC reporting separately on IGF funding from out of pocket sources and from the NHIS, this is still incomplete and therefore unreliable at the national level.
Changing composition of financing (see above) – The increase in NHIS share of sector financing has been accompanied by a significant fall in share of GOG, by 11% between 2006 and 2007, despite an increase in the nominal value of the GOG contribution. DP funding through the Health Fund has continued to fall, from 15% in 2005 to a projected 6% of the resource envelope in 2007, partly as a result of Danida’s decision to earmark much of its support during the year. There are concerns that this will hamper achievement of the goals of POW III and of the MDGs, driven by the persistent over-spend on item 1 in recent years, at the apparent expense of items 2 and 3. There are particular concerns about future financing of non-curative services, which are not covered by NHIS.

Predictability – Predictability depends on source of funds, items and, to some extent, the level at which disbursements are made. Controllable items within GOG are items 2 and 3. Item 2 is fairly predictable at all levels and channelled fairly efficiently through the treasury system. Districts reported delays with item 3 disbursements and a decline in funds received for this item. The Health Fund has been predictable in the past although not in 2007; the amount of funding is increasingly insignificant. Earmarked funding is increasing but is unpredictable.

Recommendations

- Develop a comprehensive overview of sector financing – sources, flows, uses – to inform the planned Health Financing Strategy.
- Maintain dialogue with MOFEP about share of GOG budget allocated to health given apparent reduction over the MTEF period\(^2\), particularly relating to item 3.

\(^2\) To 2009, have not yet seen figures incorporating 2010.
• Strengthen MOH capacity to request funding from MOFEP in a timely manner, in part through implementing plans to establish cash flow plans for 2008 and improved monitoring of releases and balances,

• Renew calls for DPs to improve the predictability of their funding, in particular early notification of earmarked funding for the coming planning cycle in order to strengthen central and district resource-based planning.

• Reiterate the need for all providers to separate information on NHI and other IGF resources in BMC reporting.

• Analyse 2007 expenditures from an equity perspective

5.3 Public Expenditure Review

Achievements

• Increased budget – The MOH saw a continuing increase in the absolute value of its budget, from GH¢ 504 million in 2006 to GH¢ 589 million in 2007, although the pace of growth was slower than in the previous year (see below). Although final inflation figures were not available, the increase was still large enough to reflect both and increase in the real allocation and the per capita allocation.

Nominal sector resource envelope 2005-2007

<table>
<thead>
<tr>
<th></th>
<th>2005 Actual</th>
<th>2006 Actual</th>
<th>2007 Budget</th>
<th>2008 Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total revenue</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(GH¢ million)</td>
<td>362</td>
<td>504</td>
<td>589</td>
<td>845</td>
</tr>
<tr>
<td>Year on year</td>
<td></td>
<td>39%</td>
<td>19%</td>
<td>43%</td>
</tr>
<tr>
<td>growth, current P</td>
<td></td>
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</table>

Source: 2005 and 2006 data reflect gross revenues taken from the Financial Statements of each year; 2007 and 2008 reflect POW budget data

• Budget execution good – Although queries remain regarding final disbursement figures, in part due to issues around how to classify certain contributions (e.g. Health Fund earmarked or SBS), available data suggest that budget execution for most major sources of funding captured within MOH was good, at 109% of the approved budget, as shown below. Comparison with 2006 was not possible due to the non-availability of a comparable set of disbursement data.

Budget execution 2007 (GH¢ ’000)

<table>
<thead>
<tr>
<th>Source</th>
<th>Approved</th>
<th>Released</th>
<th>Execution</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>GOG</td>
<td>242,598</td>
<td>241,305</td>
<td>99.5%</td>
<td>Netherlands, Danida and DFID</td>
</tr>
<tr>
<td>DP - HF/SBS</td>
<td>18,900</td>
<td>38,652</td>
<td>204.5%</td>
<td>Danida, UNFPA</td>
</tr>
<tr>
<td>DP - Earmarked</td>
<td>4,500</td>
<td>5,470</td>
<td>121.6%</td>
<td></td>
</tr>
<tr>
<td>NHIS</td>
<td>6,000</td>
<td>6,000</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td>HIPC</td>
<td>9,500</td>
<td>15,515</td>
<td>163.3%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>281,498</td>
<td>306,942</td>
<td>109.0%</td>
<td></td>
</tr>
</tbody>
</table>

Note: Approved earmarked funds in this table include only those from Danida. The total is significantly higher. IGF are also excluded as no ‘release’ figures are available.

• Execution of item 3 – Data suggest that there has been an improvement in the execution of GOG spending on item 3 compared with 2006, up from 74.1% to
93.8%. This is encouraging when combined with the 21% increase in the nominal value of the release.

- Increased share of expenditure allocated to district BMCs – The original budget figures do not easily permit review of the share allocated to district level BMCs, but the September 2007 Financial Statement indicates that the share of expenditure at that level had increased slightly from 41% to 43% between 2006 and the end of the 3rd quarter of 2007 shown below\(^3\). MOH data on disbursement of item 3 funding indicates that 66% of total releases in 2007 went to the district level or below. This represents a significant increase over the previous year’s figure of 56%.

- Public Expenditure Tracking Survey – A detailed Public Expenditure Tracking Survey (PETS) was undertaken during the latter part of 2007. Analysis is ongoing, and the first draft report is expected at the end of March 2008. This is an important step forward.

\(^3\) Note that the allocation between the levels is slightly different from that presented in the 2006 review report as sub-vented organisations have been included at the Tertiary level, on the advice of MOH officials.
Progress in allocation to district level

Key issues and challenges

- **Timing** – It had been expected that a more detailed analysis of budget execution and public expenditure would form part of the independent review. However, the timing of the collation of expenditure data means that the Financial Statement was not available to the team, even in draft form.

- **Release and disbursement data** – Delays were also experienced in accessing MOFEP release and MOH disbursement data. Given the known irregularities in releases of funding, both for GOG and for DP funding, analysis of budget execution at September 2007 was not felt to be particularly useful. This is particularly the case in the absence of information on projected cash flows, i.e. what had been expected at any given point during the financial year. This is currently being addressed within the MOH.

- **Relatively low GOG item 3 disbursement** – Budgeted GOG item 3 funding was reduced by 30% within the financial year due to the energy crisis among other government priorities. Of the revised figure of GH¢ 7,027 million, some GH¢ 6,591 million was released to MOH, i.e. 93.8%. While a significant improvement on 2006, GOG item 3 represents one of the most flexible sources of funding for services, and failure to disburse in full is therefore of concern. Discussion with MOFEP suggested that in part this was due to delayed or inadequate request submissions from MOH, which should be further explored.

- **Unpredictability of funding** – Budget execution rates of over 100% as in the Table above point to continued unpredictability in even the supposedly most predictable sources of funding, i.e. the traditional Health Fund DPs. This contributes to the low budget credibility in the sector. It is recognised that both 2006 and 2007 were to some extent transitional years, and that the move to SBS should reduce this, but the need for continuous dialogue and monitoring is clear.
• Measuring GOG spend on health – The indicator on % of GOG budget spent on health should be measured both at the budget and final expenditure stage, as noted in last year’s review. However, it remains unclear exactly what is included here, with the 2008 POW indicator referring to %MTEF spend on health. The implications and therefore use differ according to whether IGF is included. In addition, in order to measure the extent to which NHIF is additional to existing spending, the indicator should ideally be measured with and without this source.

Recommendations

• Clarify outstanding queries on available disbursement data with MOH.

• Prepare a comprehensive review of 2007 budget, adjusted budget (as done for Capital Investment Plan), releases and disbursements.
  Specifically:
  o Analyse by source of income, BMC level, and item.
  o Introduce additional analyses in Annex to POW showing budgeted allocation by BMC level and by region.
  o Include explanation of shortfalls and over-runs.

• Following release of the complete Financial Statement for 2007, supplement the above review with analysis of actual expenditures, for the areas above and also by region.

• MOH PPME to design a simple recording format for reporting on releases from MOFEP and disbursements to BMCs during the financial year, in order to ensure timely availability of such data in future.

• Incorporate recommendations of the PETS into ongoing plans to strengthen public finance reporting and financial management as appropriate.

• Review per capita total health spending, expenditure by item and by selected sources in order to determine the extent of geographical differences to feed into a more comprehensive strategy for addressing inequities within the system.

• Review sector-wide and POW indicators on financing.
  Specifically:
  o Agree what is required for effective monitoring of specific aspects of sector financing.
  o Separate out what is possible by the time of the review (and this for the holistic assessment) and what should be possible at a later point.
  o Circulate an updated list with agreed definitions and backdated values to 2005.

5.4 National Health Insurance Scheme

Achievements

• Scheme and membership expansion – NHIS coverage has expanded significantly. The total number of districts with Mutual Health Insurance Schemes reached 145 as of December 2007. At the end of 2006, 38% of the population
was registered with the NHIS and 19% had received ID cards. By the end of 2007, this had increased to 55% and 42% respectively, exceeding the targets set for the first 5 years of the NHIS and reflecting the intensive publicity and marketing activities undertaken in 2007.

- **Expansion of providers** – The NHIS has accredited 800 private health care providers. Tools for accreditation have been developed and 40 accreditation surveyors identified for training.

- **Increased OPD and IPD utilisation** – The NHIS has had a considerable impact on utilisation of health services. OPD and IPD use more than doubled from 3,213,450 in 2005 to 6,835,104 as at the end of September 2007. (Figures are combined as some schemes do not segregate attendances into OPD and IPD).

- **Increased financial resources for providers** – The growth in utilisation of services resulted in subsidies to schemes from the NHIA increasing from GH¢7.7 million in 2005 to GH¢108 million in 2007. Evidence from field visits suggests that the NHIS is increasing health facility revenue. However, some providers reported that current tariffs are too low and only just cover costs, and are keen to implement the new tariffs.

- **New tariffs and medicines list** – In consultation with other stakeholders, the NHIA has developed new comprehensive medicines list and established new tariffs, based on diagnostic-related groupings (DRG), which will be rolled out by April 2008. The DRG approach will address the issue of different providers being reimbursed differently for the same services, as a result of schemes negotiating with individual providers. The new medicines list comes with prescribing and dispensing guidelines and the new tariff with an operational manual. These documents are being used to train health care providers and schemes, to ensure smooth implementation of the new tariffs and medicines list. The minimum benefit package covers about 95% of all diseases in Ghana. ART drugs are excluded, although these are available at highly subsidised prices, and the NHIS covers the costs of treatment for opportunistic infections and of tests associated with treatment such as CD4 counts.

- **Capacity and systems** – The NHIA has established a research unit to strengthen analysis of key issues and regional offices in all regions to provide an intermediate point for aggregation of data from schemes, and to provide supportive supervision and regulatory oversight. The NHIA has also commenced the introduction of an integrated ICT system to facilitate the production of a uniform ID card and standardised claims management, to streamline the system and improve efficiency.

- **Coverage of children** – NHIA commissioned a study analysing the financial feasibility of extending free health insurance coverage to all children under the age of 18 years, regardless of whether or not their parents are registered.

**Key issues and challenges**

- **Administrative inconsistencies** – The independent review identified a number of administrative issues that need to be addressed. These include: lack of a standard timeframe for issuing cards and significant delays in some schemes; lack of a uniform premium system across schemes, which has implications for portability and equity within the national scheme; and difficulty in getting
reimbursement of claims from districts other than the home district of the health facility, which also has implications for portability.

- **Moral hazard** – There are concerns about potential ‘abuses’ of the system by consumers and providers. Instances of patients seeking unnecessary treatment, to test the system or seeking treatment from several facilities to compare quality are reported to be declining. Cases of people registered with schemes seeking treatment on behalf of individuals who are not registered need to be managed by improvements in health worker diagnostic skills. The scope for over-inflated claims should be addressed to some extent when the new DRG system is introduced.

- **Defining the ‘poor’** – The current system of exemptions only covers those classed as ‘indigents’, who represent only 1% of the population. There are particular concerns about the exclusion from the NHIS of the significant number of people who fall between the official category of indigent and those able to pay the minimum informal sector premium of GH¢ 7.2. Approximately 18% of the population is categorised as poor in absolute terms (GLSS). The increase in budget for 2008 to enrol indigents representing up to 10% of the population is welcome, but it remains unclear how the poor will be defined.

- **Targeting the poor** – Limited efforts appear to have been made to target the poor. As of September 2007, only 2% of registered members were exempt from premiums. This is due in part to the lack of a standardised approach to incentives for agents. In some districts visited, schemes do not provide incentives for agents to register indigents even though NHIA is clear that incentives should be paid regardless of whether or not the individual registered pays a premium. In other districts visited, scheme staff highlighted the difficulties of reaching more remote areas and of trying to register people in areas where there are no health facilities. In addition, scheme and health facility staff reported that people do not wish to be associated with the social stigma of being classified as indigents, and this in itself is a barrier to exempted registration by the poor.

- **Inequity** – People using and over-utilising services tend to live near a health facility. This may hamper service delivery to people in more remote areas and thus lead to greater inequity. There are concerns about the impact of increased tariffs on the unregistered poor who do not qualify as indigent and who will be required to pay higher out of pocket payments, specifically that they may be further excluded from access to health care. Field visits indicated, not surprisingly, that coverage is lower in districts where there is no DMHIS and distance to the regional centre is a challenge. For example, in Talensi-Nabdam District in Upper East Region, which has no district scheme, only 15,000 of the population of 98,000 are registered. In addition, it is not clear how additional funding in 2008 for the poor is to be allocated between schemes, and this needs to be addressed given the significant differences in district poverty rates.

- **Decoupling of children** – The NHIA-commissioned study analysing the financial feasibility of extending free health insurance coverage to all children under the age of 18 years is complete and in principle a decision has been taken. However, there is as yet no standardised policy on decoupling children from parents or guardians or clarity about the timing of introducing decoupling.

- **Scheme staff capacity** – The independent review highlighted issues related to the managerial and technical capacity of schemes, as well as concerns about staff capacity in the face of increasing coverage. Weak capacity limits the ability of
schemes to provide disaggregated data on, for example, the sex or age of registered members, and to provide standardised reports.

- **Scheme governance** – There are differing views on DMHIS governance. Whereas the NHIA sees schemes as having primary allegiance to their board and district, the schemes feel their primary allegiance is to the NHIA. The relationship between regional and district schemes is unclear. There is also a lack of clarity concerning board membership and how to manage potential conflict of interest, for example, when ‘providers’ such as the DDHS are represented on the board.

- **Financial sustainability** – Concerns about financial sustainability are not new but the impact of plans to decouple children under 18, increased utilisation and rising administrative costs needs to be monitored carefully.

- **Health facility work load** – The expansion of the NHIS and increase in utilisation is increasing the work load for health staff and also for administrative staff. Some facilities visited by the team reported that additional administrative staff had been recruited to manage claims processes. Non-renewal of the tariff since the inception of the NHIS has caused difficulties for providers, who view the current tariff as uneconomical and welcomed the proposed introduction of the revised tariff structure.

**Recommendations**

- Review the criteria used to define indigents, and perhaps replace ‘indigent’ with a less value laden term, and agree on a clear set of criteria for identifying the poor.

  Specifically:
  - NHIA should work in collaboration with other key stakeholders, including the NDPC, GSS, Department of Social Welfare, GHS and MOH to develop criteria for determining the poor.
  - NHIA should work in collaboration with schemes and DAs, especially unit committees and area councils, to help identify people who are genuinely poor for free coverage.
  - Links with the Livelihood Empowerment Against Poverty (LEAP) programme of the Ministry of Employment and Social Welfare should be further pursued.

- Standardise premiums as well as incentives for registration agents across all schemes and ensure compliance.

- Develop a policy and system to ensure that claims for reimbursement from other district schemes are paid.

- Take steps to implement decoupling of children under the age of 6 so that such children can be registered for free coverage.

- Develop a clear policy and guidance on scheme board membership including guidelines on management of potential conflict of interest.

- Develop a standardised operational reporting template that can provide disaggregated data in terms of sex, age, utilisation by membership type, and disease diagnosis.

- Strengthen monitoring of registration and use of services by the poor, of differential utilisation rates for insured and non-insured members to strengthen
planning for increased membership and to identify any potential moral hazard, and utilisation and cost by DRG to facilitate planning for future workload.

- Monitor the impact of increased tariffs – while this may increase the incentive for people to sign up for NHIS, it may also prevent access to health services for patients paying out of pocket – and the extent to which providers are subsidising the cost of treatment for non-registered patients who cannot afford out of pocket payments.

- The MOH should discuss information needs with GHS and NHIA in order to ensure that data requirements for monitoring NHIS in the context of the changing sector financing are captured within DHMIS and NHIA routine reporting.

- Explore scope for synergies between the DHMIS and NHIA computerised MIS and claims management system.

### 5.5 Financial management

**Achievements**

- **Budget information** – Information contained in the budget is more comprehensive, in particular ability to show sources of income and direction of expenditure by programmes, although more information about region, district and BMC allocations would be helpful, especially in order to monitor equity of resource allocation. Currently the Financial Statement shows some detail in this respect and could be a starting point for disclosure in the budget.

- **Flow of funds** – Channelling of GOG item 2 funds through the treasury system to the regional and district BMCs was reported by MOFEP, MOH Finance and BMCs visited to have both streamlined and speeded up the flow of such funds.

- **Financial management** – There have been improvements in sector financial management. The health treasury has been integrated into MOH financial management structure, and structures are in place within MOH and its agencies to ensure financial controls and effective utilisation of resources. The review was given verbal and anecdotal evidence of improvements in recording and accounting practices, which should be reflected in the findings of the 2007 audit report and accompanying management letter. The MOH has taken steps to increase training for national and regional finance staff in ACCPAC, for national staff in BPEMS Chart of Accounts and for regional staff in 3 regions on financial management. There is some initial consensus on the challenges of using ATF rules vis-à-vis the requirements of the NHIS rules for DRG claims.

- **Automation** – Work is advanced in automating accounting and financial management systems at national and regional levels. The finance unit progress report indicates that some automated systems already exist in the regions and that the MOH is in the process of rolling out an accounting information system (ACCPAC) into the regions, for which training and other preparations have commenced.

- **Audit function** – There has been improvement in the timeliness of the conduct and release of audited financial statements and management letters. The MOH reports an increase in internal audit staff in 2007 and a projected increase in 2008, although precise figures were not available at the time of the independent review.
External scrutiny – Oversight of the MOH by external bodies has improved. DPs have the opportunity to scrutinise the financial activities of the MOH and its agencies. Steps are being taken to bring civil society into health sector dialogue, which could provide further opportunities for scrutinising the financial transactions of the MOH. Parliament is also increasingly active, with more attention being given by the Public Accounts Committee to MDA financial and audit reports.

Key issues and challenges

- Resource allocation – The intention is that resource allocation be aligned with POW objectives. A critical look at the focus of the 2007 POW and trends in resource allocation in the accompanying budget did not show a clear alignment between the two, highlighting challenges in policy-based budgeting. For example, while the POW 2007 emphasises a shift from curative to preventive interventions, resource allocation remained weighted towards curative care.

- Budget credibility – There are still some reported concerns about budget credibility, and possible factors identified during the independent review include the following:
  - Budgeting – MOH is using both a needs-based and a resource-based approach to budgeting. This creates additional work for district staff and affects the quality of the final budget. District staff feel there is little point in providing an accurate budget since this is not used as the basis for resource allocation.
  - Financing gaps – There are also issues related to financing gaps, and in particular whether or not MOH should budget for activities when funds are not available to execute the budget.
  - Capturing earmarked funds – Despite efforts by MOH and DPs to ensure that earmarked funds are captured, the proportion of off-budget funds remains a challenge. One implication of this is that there may be significant differences between information recorded in the financial statements and information contained in the budget, with implications for comprehensiveness and transparency and budget credibility.
  - Communication – Mechanisms for communication between the budget and finance units within both MOH and GHS are weak, resulting in inconsistencies in data generated. The format of the budget is different from that of the financial statement and this makes meaningful comparison between budget and expenditure difficult. PPME is attempting to help align formats.
  - Double counting – There is the potential for double counting of donor contributions, since systems are not in place to identify ‘contributions within contributions’, for example, a contribution made by UNICEF that may include a bilateral contribution that has already been captured as part of that bilateral contribution.

- Management needs – The output from ACCPAC is not useful for district decision making. However, plans are being put in place to develop a financial management system that responds to management needs at that level. In the pipeline is also the implementation of government-wide systems (BEPEMS). It is essential that parties working on these apparently parallel and potentially duplicative systems work together to ensure the most efficient development of a financial management system that provides consistent and reliable data for all stakeholders.
ATF rules – The ATF rules have provided the institutional and regulatory framework for accounting and reporting of transactions. Although the ATF rules remain relevant to the operation of the health sector, they may require some modification in response to new laws (related to Public Procurement Board, Internal Audit Agency, and Financial Administration Regulations). The MOH finance unit has initiated steps towards a review of the ATF rules but is awaiting the new accounting manual for all MDAs to be issued by the Controller and Account General’s Department (CAGD) to ensure that any changes are consistent with CAGD rules.

Implications of NHIS for accounting and reporting – There are concerns about the capacity of health sector finance staff to respond to NHIS recording and accounting requirements, in particular with the introduction in April 2008 of claims based on diagnostic-related groupings (DRG) rather than on service lines, which facility finance and accounting staff are used to. Specific concerns raised include the difficulty in using existing manual systems to record and account for NHIS transactions, which will generate more entries than the current system which is skewed towards a cash basis of accounting, and the fact that the current ATF ledgers do not provide space to accommodate extra transactions arising from the new requirements.

Accounting basis – Theoretically MOH reports on a modified accruals basis of accounting but in practice most BMCs still report on a cash basis of accounting. There is the need to improve the understanding and capacity of staff and to ensure that the basis for reporting is consistent with that of MOH.

Financial credits – Concerns were also raised about the handling of financial credits (loans) in the existing system, which are included as a source of revenue but currently neither interest nor capital repayments are clearly shown in the accounts.

Staff capacity – More generally, lack of adequate numbers of appropriately skilled staff, in particular at the lower levels of the health system, is a major challenge for the MOH finance and audit units. Some areas rely on non-accounting staff to perform major accounting tasks and have no internal audit staff. The IAA has conducted recruitment on behalf of the MOH, but information is not yet available about the impact of this on filling staffing gaps.

Internal audit – The MOH internal audit unit is seriously understaffed, despite efforts to improve recruitment with the help of IAA, limiting scope to make substantial progress. The unit focuses on conducting investigations to uncover violations or non-compliance instead of using external audit findings to strengthen BMC internal control systems. This is reflected in the management letters from external auditors which appear to raise the same questions every year. Documentation, in particular of responses to internal audit queries, is weak, which makes it difficult to follow up on some critical issues.

External audit – Despite improvements there are still some areas of concern. Management letters from external auditors suggest that some finance staff are either unaware of the laws or of the need for due care and diligence, and this is an issue that should be addressed urgently. Documentation of management responses to audit queries is weak. While the independent review team was told that there have been significant improvements in accounting and recording practices in response to audit queries, there is no documented evidence of improvements.
Recommendations

- Strengthen staff capacity.
  Specifically:
  - Increase the capacity of MOH finance and audit units, districts and facilities.
  - Develop and implement a clear training plan for lower level finance staff to address weaknesses and concerns identified above.

- Improve communication between budget and finance units of the MOH and GHS and consistency of budget and Financial Statement presentation.

- Return to comprehensive, resource-based planning within known ceilings, at both central and BMC level, in order to address issues of predictability, financing gaps and budget credibility.

- Conduct a study on the relevance of the ATF rules, once the CAGD new financial management manual is available, in order to determine changes required.

- Determine financial reporting requirements at each level and design and implement a single financial management system that will generate reports relevant to management needs at each reporting level.

- Ensure that the internal audit unit increases its focus on assurance and introduces systems to document issues related to internal and external audit.

5.6 Governance and partnerships

Achievements

- DP and MOH arrangements – The DPs have drafted terms of reference for the Health Sector Group and Framework Memoranda for MDBS and SBS partners. Although the POW 2007 refers to the need to finalise CMA III to govern relationships within POW III (2007-2011), a decision has been taken to convert the CMA into the Health Sector Group terms of reference, which will form the basis for a Country Compact.

- Mutual accountability exercise – This year the annual review process included a DP performance self-assessment against criteria set out in the Paris Declaration. This found that, in general: DPs give advance notice to MOH and GOG concerning the anticipated level of funding for the ensuing year; most provided at least all promised funds and, in some cases, actual aid delivered exceeded the promised amount; and with a few exceptions, DPs use the national PFM system in aid disbursement. A joint meeting to review the findings identified key MOH priorities for the coming year. These include: DP alignment to the POW 2008; DP provision of a disbursement schedule to improve predictability of funding; ensuring a balance of DP support between commodities, training, technical assistance, and service delivery; increased harmonisation among multilaterals, in particular through joint missions; inclusion of CSO support in DP reporting; inclusion only of areas which can specifically be aligned to the MOH budget in reporting on DP commitments to the health sector; and consideration of DP support for development of a TA plan and for RHNP.
Collaboration within the health sector – There is reported improvement in the relationship between MOH and GHS, through the establishment of regular meetings between heads of units of all agencies, which are chaired by the Minister of Health. A desk officer has been assigned to take forward this agenda and an operational document is being finalised.

Stakeholder participation – Structures are being put in place for expanded participation of stakeholders in sector dialogue, policy development and evaluation, although the MOH acknowledges that more needs to be done to engage civil society and the Ghanaian public.

Key issues and challenges

Leadership – MOH is not meeting DP expectations in terms of sector leadership, specifically national ownership of aid management, engagement with MOFEP, and coordination with GHS, NHIA and with the GF CCM. There is also scope to improve the quality of DP-MOH dialogue concerning sector financing.

Roles and responsibilities – The increasing complexity of, and increased number of actors in, the sector has contributed to lack of clarity about respective roles and responsibilities. Examples include the extent to which DHMIS staff should be involved in clinical audit of claims, the involvement of provider representatives in DHMIS boards, and the respective roles of MOH and GHS in RHNP implementation. Decentralisation to districts and the expansion of the NHIS is also raising questions about the future role of the RHMT.

Partnerships with private sector and NGOs – There is no clearly articulated strategy for engagement with the private sector and collaboration is currently limited. The existing strategy, drafted in 2003, is out of date and has not been taken forward. Although the MOH has taken steps to provide support for the coalition of health NGOs, collaboration is limited. There are reported to be few links between CHPS and NGOs operating at community level, with the exception of national immunisation campaigns. NGOs could for example, play an active role in promoting NHIS registration and taking forward the RHN.

Recommendations

Clarify and agree expectations concerning the role of the MOH in leadership of the sector with key stakeholders.

Establish a task force comprising MOH, GHS and NHIA that meets as required to resolve issues and clarify concerns about roles and responsibilities.

Review the future role of the RHMT vis-à-vis the DHMT and DHMIS in view of changes in the financing and delivery of services.

Specifically:
- Consider the potential role of the RHMT in monitoring quality of care, re-accreditation of health providers, and clinical audit of claims; and in monitoring utilisation of services by registered and unregistered clients.
- Strengthen the role of the RHMT in supporting districts to implement performance management, to implement resource-based planning and budgeting and to develop comprehensive capital investment plans that incorporate DA plans.
- Develop a strategy for engagement with the private sector and NGOs in collaboration with these partners, taking into account recommendations in this report related to the private sector and NGOs and ensuring that the strategy incorporates evidence-based action and accountability for results.

- Build the capacity of the private-public intersectoral collaboration unit, including adequate staffing, funding and training to facilitate effective private-public partnerships.
ANNEX 1: TERMS OF REFERENCE

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, and Partners are jointly reviewing the performance of the health sector in 2007. The 2007 review will assess the overall progress of the health sector. It will include an assessment of the performance of all the agencies and BMCs of the Ministry as well as the Development Partners and the private sector operating within the health sector. The year 2007 marks the starting point of the third five-year programme of work (2007 – 2011).

Purpose and objectives of the review

The purpose of the 2007 review is to assess progress of the health sector in meeting the objectives and targets in the five-year programme of work and progress towards the achievement of the health related MDGs. It will also identify constraints and opportunities for improving performance. The findings of the review would be used to improve the implementation of the 2008 POW and Budget.

Organisation and methodology

The 2007 review would combine both self and independent assessments. It would be organised as follows:

1. **BMC performance reviews** – This is the first step of the review process. It will start in the second week of February and end in the first week of March 2008. 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, analysing and reporting on its performance using data generated routinely within the health delivery system and relevant research. The BMC reviews will 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, and Regulatory bodies where they exist. The Ministry of Health, other MDA, Development Partners, Private Sector, Civil Society and other relevant stakeholders are to be invited to participate in the performance hearings.

2. **Inter-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 will also review their financial and technical contribution to the health sector and present their reports to the Minister of Health at a performance hearing meeting. This component of the review will take place in early March 2008.
MOH will develop guidelines for development partners to report on their technical and financial contributions to the health sector in line with the Paris Declaration.

3. **Technical Review** – A technical review meeting will be organised ahead of the main sector review to assess progress and constraints in the implementation of priority health interventions. During this review, programme managers implementing the priority health interventions will report on progress in their areas. This will be organised in early March 2008 and would be coordinated by the Ministry of Health and the Ghana Health Service.

4. **Sector-wide Independent Review**

The 2007 Programme of Work of the Ministry of Health had four strategic objectives as follows:

- High Impact Rapid Delivery
- National Health Insurance Scheme
- Human Resource Rationalization and
- Regenerative Health and Nutrition Programme

Additionally, the Ministry has identified four areas of interest in the course of the year. These include:

- Equity including geographical and financial access, within the health sector
- Reproductive Health
- Capital Investment and
- Public Expenditure Review (Financial; Statement)

The independent review will therefore take on board these strategic objectives and interests. An independent team of local experts or institutions will be constituted to validate and synthesise the reports from the internal reviews conducted by the Ministry of Health, 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. This component of the review will be organised in March 2008 and will be coordinated by the Ministry of Health.

The objectives of the independent review are to:

- Assess performance of the health sector using the sector wide, agency, programme specific indicators and milestones as indicated in the 5YPOW
- Assess the progress made in the four priority areas: HIRD, RHNPR, HR rationalisation and scaling up of NHIS
- Assess challenges in the provision of reproductive health services especially supervised deliveries and family planning and reviewing the role of the private sector in these areas
- Investigate the low supervised delivery rates in comparison with the high antenatal coverage
- Review the status of financial reporting in the health sector
- Analyse the systems in place for data collection identifying any bottlenecks
- Review the 2007 Capital Investment Implementation Plan
- Identify the causes behind the poorly performing indicators in line with the holistic assessment framework
• Review the status of implementation of the agreements, conclusions and recommendation made in the Aide Memoire
• Make appropriate recommendations on the focus areas providing suggestions for the way forward for consideration. This information will be used to inform the holistic assessment

The Directors and programme heads would develop a progress report of about ten pages in their programme areas. The structure of the progress report should be as follows:

• Introduction
• Objectives of the programme
• Progress/Achievements
• Challenges
• Conclusion
• List of documents

The following officers have been charged to develop progress reports on:

<table>
<thead>
<tr>
<th>Strategic Objective/Area of interest</th>
<th>Focal person</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Impact Rapid Delivery</td>
<td>Dr George Amofah</td>
</tr>
<tr>
<td>Regenerative Health and Nutrition Programme</td>
<td>Mr. Kofi Adusei / Mr Armah</td>
</tr>
<tr>
<td>National Health Insurance Programme</td>
<td>Mr. Ras Boateng</td>
</tr>
<tr>
<td>Human Resource Rationalization</td>
<td>Dr. Yaw Antwi-Boasiako</td>
</tr>
<tr>
<td>Reproductive Health</td>
<td>Dr. Gloria Quansah / UNFPA</td>
</tr>
<tr>
<td>Capital Investment</td>
<td>Mr. J.G. K. Abankwa / Danida</td>
</tr>
<tr>
<td>Public Expenditure Review (Financial Statement)</td>
<td>Mr. Hermann Dusu</td>
</tr>
</tbody>
</table>

Based on the strategic objectives and the areas of interests the Ministry wants to investigate, the independent review of the 2007 Programme of Work would require the following skill mix:

• Public Health Specialist with Reproductive Health bias
• Health Systems Expert who looks at human resources and management information systems
• Economist who specializes in Public Finance Management
• Team leader

5. Summit

The Ministry of Health and Partners summit would be held from 21st-25th April 2008 to review 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 on the sector priorities and resource envelope for 2009.
Outputs

1. Agency Review Reports
2. Partners Review Report
3. Technical Review Report
4. Regional and District Review reports
5. Independent Review Report
6. Finalise the instrument on holistic assessment
7. Report of Health Summit
8. Signed Aide Memoire

Work plan for independent review process

1. Submission 1st draft TOR for planning committee review – Thursday 24th January
2. Development Independent Review TOR – By End January
3. Sourcing reviewers – by 10th February
5. Data consolidation – 3rd-7th March
6. Independent Review – 10th-28th March
7. Submission team’s report – 28th March
8. Health Summit 21st-25th April

Coordinating Office: Ministry of Health-PPME Division

Specific terms of reference for review team

Economist who specialises in Public Financial Management
  • Determine the degree to which expenditure is aligned to the BMC budget
  • Review the financial reporting system and identify any weaknesses
  • Review the ATF rules and make appropriate recommendations for Financial Management
  • Assess the capacity of staff to adequately manage BMCs finances
  • 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

Public Health Specialist
  • Review the current policies and implementation strategies of reproductive and child health including nutrition
  • Review current trends for supervised deliveries and account for any regional variations
  • Review and account for the differential rates in supervised deliveries and the antenatal coverage.
  • Understand the private sector contribution to reproductive and child health

Health Systems Expert who looks at human resources and management information systems
  • Review data collection processes and procedures with special reference to reproductive and child health
  • To review and make appropriate recommendations on the HR rationalisation plan and the existing staffing norms
• To review the 2007 Capital Investment Plan in context of CIP III
• To make recommendations on the necessary structures for implementation of the CIP III
• Review the logistics, equipment and supply situation including transport and drugs and make appropriate recommendations

Team Leader
• Coordinate and produce a composite report of not more than forty pages or 20,000 words
ANNEX 2: DOCUMENTS CONSULTED

Policies
- GPRS I 2002-2004
- GPRS II 2006-2009
- MOH, National Health Policy: Creating Wealth through Health 2006
- Community Based Health Planning Services Policy 2005 (Draft)
- Health Sector ICT Policy & Strategy July 2005 (Final draft)

Reviews and surveys
- Appraisal of the Information, Monitoring and Evaluation System of the Health Sector 2003
- Health of the Nation: Analysis of the Health Sector Programme of Work 1997-2001
- Holistic Assessment of the Health Sector in 2007
- Ghana Health Service 2006 Annual Report
- Ghana Health Service Performance Review 2005; 2007
- Draft Update of IME Road Map.
- 2008 District Performance Indicators
- National Data by District 2007
- The Stall in Mortality Decline in Ghana – DHS Sub-analysis
- GPRS Annual Progress Report 2004, NDPC, March 2004 (Draft)
- USAID Review of Private Sector Participation in the Health Sector
- Private-Public Partnerships in Health 2003
- Review of the National TB Programme 2005

Technical reviews
- 2007 Technical Reviews: Family Planning, Clinical Care, EPI, Child Health, Malaria, HIV, Nutrition, Health Promotion, Food and Drugs, Safe Motherhood, Surveillance, Regenerative Health, TB, Teaching Hospitals, Nurses and Midwives Council, Private Hospitals and Maternity Homes, NHIS
- 2006 Technical Reviews: Family Planning, EPI, Clinical Care

HIRD
- HIRD Progress Report

RHNP
- RHNP Progress Report
- Regenerative Health and Nutrition Strategic Plan: 2007-2011 (Draft)
- Regenerative Health and Nutrition Strategic Plan: Scaling-up Regenerative Health (Draft)
- Communication Strategy Supporting the Implementation of the RHNP, October 2007 (Draft)

NHIS and exemptions
- NHIS Progress Report (Draft)
• The Proposed National Health Insurance Scheme: In-depth Report on Annual Review 2002
• Aligning Exemptions Policy and Practice Poverty Reduction Goals: In-depth Report on Annual Review 2002
• In-depth Review of Ghana Health Sector Pro-poor Agenda 2003
• Review of the Exemptions Policy, March 2006
• National Health Insurance Act 650
• Legislative Instrument for the National Health Insurance Scheme 1849
• Policy Frameworks for the Establishment of NHIS
• Ghana: Financial Analysis of the Extension of Health Insurance Coverage to All Children 0-18 Years of Age 2007-2016, ILO, August 2007
• Financial Analysis of NHIP, ILO, 2004
• NHIS Tariff and Benefits Package Operational Manual, 2008
• NHIA Medicines List, 2008

Human resources
• HR Salary Rationalisation
• Human Resource Policies and Strategies for the Health Sector 2007-2011
• HRH Scaling Up Cost Assessment 2007-2011
• USAID Support to MOH/GHS Human Resource Development 2002
• MOH Human Resource Report 2005
• A System for Monitoring HRH Reforms in Ghana, MOH, March 2005
• World Bank Mission Report: Ghana Analytical and Advisory Assessment on Health Sector Human Resources 2005
• Common Framework for Allowances: Part I and II
• Medical Officers on Payroll, December 2007
• Ghana Health Workforce Observatory leaflet

Reproductive health
• Reproductive Health Progress Report
• MOH Report on Child Survival in Ghana, January 2005 (Draft)
• Dasmarinas and Mensah, Technical Assistance in Support of Quality Health Partners (QHP) Franchising, October 2005
• Reproductive and Child Health Unit Annual Report 2006
• Mills et al, 2007, Obstetric Care in Poor Settings in Ghana, India and Kenya, World Bank
• Grimes et al, 2006, Unsafe Abortion: The Preventable Pandemic, WHO
• Warriner and Shah, 2006, Preventing Unsafe Abortion and its Consequences, Guttmacher Institute
• Review of Maternal Mortality 2004
• GHS, Annual Report 2006, Health Research Unit, 2007
• Essandoh et al, 2007, Population and Reproductive Health Programme Assessment
• GHS, National Reproductive Health Service Policy and Standards, 2003
• Ghana Social Marketing Foundation et al, 2000, Ghana Youth Reproductive Health Survey Report
• Ghana Statistical Service, ORC Macro, Ghana Demographic and Health Survey, 2003


ORC Macro, 2005 Trends in Demographic, Family Planning and Health Indicators in Ghana, 1960-2003

Quality Health Partners, Research International, 2006, Social Franchising of Reproductive and Child Health Services: A Market Study in Ghana

Ipas, 2007, Contraceptives and Comprehensive Abortion Care in the Greater Accra, Eastern and Ashanti regions of Ghana


Capital investment

- Capital Investment Programme Progress Report
- Review of Health Sector Capital Investment Programme 2002-2006
- Capital Investment Plan III (Draft)

Equity in the health sector

- Geographical Resource Allocation for Health 2001

Public expenditure and health sector financing

- Finance Division Progress Report
- Comments on MOH 2004 Unaudited Financial Statements
- MOH Audit Financial Report 2004
- MOH Financial Reports, March 31, June 30, September 30 2005
- 2006, 2007, 2008 POW and MTEF Plans
- MOH Procurement Audit Report 2004

Programmes of work

- Ghana Poverty Reduction Strategy I and II
- MOH POW I 1997-2001
- MOH 5-Year POW II 2002-2006
- MOH 5-Year POW III 2007-2011
- Common Management Arrangements for the Implementation of the Health Sector
  - Five Year POW (CMA II), January 2002
- Review of the CMA for the POW 2002-2006, March 2006 (Draft)
- Memorandum of Understanding 2002
- MDBS PAF holistic assessment

Aide memoires and development partner responses

- Aide Memoire – December 2002
- Aide Memoire – June 2003
- Aide Memoire and DP Response – June 2004
- Aide Memoire and DP Response – December 2004
- Aide Memoire and DP Response – April 2005
- Aide Memoire and DP Response – November 2005
- Aide Memoire – July 2006
- Aide Memoire – November 2006
- Aide Memoire – April 2007
- Aide Memoire – November 2007

**Development partners**
- MDBS PAF2008-2010
- Development Partners Performance Review 2007: Questionnaire
- Development Partners Performance Review 2007: Report
- Ghana Joint Assistance Strategy, February 2007

**Other**
- MOH-CHAG Memorandum of Understanding and Administrative Instructions
ANNEX 3: PERSONS MET

Ministry of Health
Major Courage E K Quashigah (Rtd) Honourable Minister of Health
Dr Eddie Addai Director, Policy, Planning, M&E
Mr James Antwi, Deputy Director, HRH Directorate
Mr Kojo Abankwa Director, Capital Investment
Mr Isaac Adams Director, RSIMD
Mr Herman Dusu Financial Controller
Mr Armah Nutrition Unit
Dr Maureen Martey Private Sector Desk
Mr G K Abankwah Head, Capital Investment Mgt. Unit (CIMU)
Mr Daniel Darko Head, CHIMS
Mr Peter Gyimah Head, CMS
Mr Eleblo Director of Audit
Mr Hoto Deputy Director of Internal Audit
Dr Saka Private Hospitals and Maternity Homes Board

Ministry of Finance and Economic Planning
Ms Angela Farhat Desk Officer, Policy issues on health
Mr Peprah Desk Officer, Health
Mr Nana Siriboe Chief Director

Ghana Health Service
Dr Elias Kavinah Sory Director General
Dr Amankwa Joseph Director, Public Health
Mr Dan Osei Director, Policy, Planning, M&E
Dr Ken Sagoe Director, Human Resource Directorate
Mrs Joycelyn Azeez Head, Procurement Unit
Dr Gloria Quansah Asare Acting Deputy Director, Family Health Unit
Dr Isabella Sagoe Moses National Child Health Coordinator

National Health Insurance Authority
Mr Ras Boateng, Chief Executive Officer

Ghana AIDS Commission
Prof. Sakyi Awuku Amo, Director General

Development Partners
Dr Marius De Jong Royal Netherlands Embassy
Mr Xavier Le Mounier European Union
Ms Laura Rose World Bank
Mr Andreas Bjerrum DANIDA
Ms Helen Dzikunu DANIDA
Ms Matilda Owusu-Ansah DANIDA
Ms Yvonne Agbesi DFID
Ms Juliana Pwamang USAID
Dr Leopold Zekeng UNAIDS
Mr Robert Mensah UNFPA
Mr Ronald van Dijk UNICEF
Mr Selassi Amah d'Almeida WHO
NGOs

Chief Executive, Christian Health Association of Ghana
Ms Afia Appaih, Ghana Health NGO Coalition
Mr Prince Immanuel Ben-Yehuda, International Project Director, African-Hebrew Development Agency

Greater Accra Region

Regional Health Team
Dr Irene Agyepong-Amarteyfio, Regional Director of Health Service
Dr Edward Antwi, Deputy Director, Public Health
Mr Augustine Yaw Boamah, Deputy Director, Administration
Mr Seth Amedzro, Regional Accountant

Ridge Hospital, Accra
Dr E K Srofenyoh, Obstetrician Gynaecologist
Ms Doris Agyei, Acting Head, Family Planning Unit
Dr Nana Serebour, Paediatrician

Ms Dora Ameyaw, Ghana Registered Midwives Association
Mr Gabriel Amoako, Greater Accra Regional Manager, NHIA
Ms Vicky Yamoah, Okai-koí Sub-Metro Health Insurance Scheme Manager

Ms Cynthia Soti, Senior Medical Officer in-charge, Achimota hospital
Ms Suzie Appiah, Staff nurse midwife/CHO, Apenkwa CHPS
Ms Joyce Dougan, Staff nurse midwife, Apenkwa CHPS

Dangme East District
Dr Justice Hoffman, District Director of Health Services
Mr Saliu Yusuf, Biostatistician, DHMT
Mr Lawrence Mensah, Disease Control, DHMT
Mrs Margaret Lartey, Deputy Director, Nursing Services
Mr George Amidu, Accountant/Finance Officer, DHMT
Mr Rexford Annan, Accountant, DHMT
Mr ________, DHMIS Manager

Kaneshie Poly-clinic
Dr Sam Alloey-Babington, Sub-Metro Health Director and SMO in-charge
Ms Francisca Sefakor Kumahor, Health Services Administrator
Ms Alexandria Addo, Deputy Director, Nursing Services

Upper East Region

Regional Health Team
Dr Koku Awoonor, Regional Director of Health Services
Dr Agana, Deputy Director of Health Services
Mr Atia, Regional Accountant
Ms Evelyn Naaso, Reproductive and Child Health
Ms Evelyn Adda, Focal Point, Health Insurance
Mr Uwusu Asubonteng, Regional Deputy Director, Pharmaceutical Services
Regional Hospital
Dr Richard Anyongura, Acting Director
Mr George Atampugre, Principal Health Services Administrator
Mr Bentie Abubakar, Assistant Health Services Administrator
Ms Valeria Kuumile, Matron
Mr Fredua Gyening, Deputy Director, Pharmaceutical Services
Mr John Bosco Tampuri, Principal Technical Office, Biostatistics
Mr Afiah Bawa, Technical Officer, Biostatistics

Bolgatana Municipality (District)
Dr Alexis Nang-Beifubah, District Director of Health Services
Philomena Akolia, Public Health Nurse, Coronation Clinic, Plaza Sub-District
Joanna Amike, Community Health Nurse, Coronation Clinic, Plaza Sub-District

Mr Dominic Akuribire, Manager, Bolgatana Municipal Health Insurance Scheme
Mr Roland Ayine, Claims Manager, Bolgatana Municipal Health Insurance Scheme
Mr Roger Ayine, Regional Manager, Upper East Regional Health Insurance Scheme

Talensi-Nabdam District
Mr Fuseini Al-Hassan, District Coordinating Director
Mary-Stella Adapesa, District Director of Health Services
Veronica Asaga, Midwife and Health Education Officer
Musah Issah, Disease Control Officer
Bibiana Yizura, Public Health Nurse
Stephen Akugri, Accountant

Ms Mariama Hamidu, Community Health Officer (CHN), Awaradone-Gorrigo CHPS

Brong-Ahafo Region
Mr F O Boateng, Regional Coordinating Director

Ministry of Local Government Rural Development and Environment
Mr Daniel Nyankamawu, Chief Director

National Development Planning Commission (NDPC)
Dr Mensah Bonsu
Mr Adjei Fosu Kweku, Principal Development Planning Analyst

Regional Health Team
Dr Alhaji Mohammed bin Ibrahim, Regional Director of Health Services
Dr K Tenkorang, Deputy Director, Public Health
Mr George Asare-Tabi, Acting Regional Health Information Officer
Mr Zanu Dassah, Regional Human Resource Manager

Regional Hospital
Mr Charles K Tawiah, Health Service Administrator
Dr S Asare, Medical Director

Sunyani Municipal Assembly
Hon. Kwame Twumasi Awuah, Municipal Chief Executive
A F Dodzie, Municipal Co-ordinating Director
Hon. G K Boachie Broni, Presiding Member
Mr Daniel Asibey, Deputy Municipal Co-ordinating Director
Seth Appiah, Municipal Finance Officer
B A Sowah, Urban Roads Engineer

Sunyani Municipal Mutual Health Insurance Scheme
Ms Mary Asamoah, Claims Manager
Ms Jacqueline Mensah, Assistant Accountant
Mr Oppong Dankwah, Public Relations Officer

Municipal Hospital, Sunyani
Dr Mohammed Owusu Ansah, Medical Superintendent

Tano South District
Mr Duut Bedina, District Director of Health Services
Mr Amofa-Boateng, Disease Control Officer

Kitampo South District
Mr Yaw Adjei Duffour, Chief Executive Officer
Mr Victor Sebogmoore, District Coordinating Director

Ms Georgina Nimo, Staff Midwife, Fiaso CHPS zone, Techiman
ANNEX 4: Progress towards Aide Memoire recommendations

Progress with implementation of Aide Memoire recommendations is reviewed at MOH-DP business meetings. Based on information provided by the MOH, which is to be further updated, the following table summarises progress on recommendations and key steps agreed by MOH and DPs in April and November 2007 Aide Memoires.

Progress appears to be mixed, with steps taken to implement recommendations in some areas but no reported progress in others. Some recommendations agreed in November 2007 are to be implemented by the end of the first or second quarters of 2008, so it was too early to judge progress at the time of the independent review.

One observation is that the recommendations do not appear to reflect the 2006 annual independent review, nor are they very strategic, appearing in some instances to reflect specific stakeholder interests rather than a coherent set of actions.

<table>
<thead>
<tr>
<th>Healthy lifestyles and environment</th>
<th>Aide Memoire</th>
<th>Progress</th>
</tr>
</thead>
<tbody>
<tr>
<td>Need for more comprehensive social and behavioural change; examine capacity of MOH health promotion unit</td>
<td>April 2007</td>
<td>No progress reported</td>
</tr>
<tr>
<td>Define role of NHIF in support for health promotion</td>
<td>April 2007</td>
<td>No progress reported</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Health services</th>
<th>Aide Memoire</th>
<th>Progress</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accelerate planning and resource allocation to expand HIRD to remaining 6 regions; HIRD plans developed by September 2007</td>
<td>April 2007</td>
<td>HIRD plans developed</td>
</tr>
<tr>
<td>Align HIRD planning and budgeting with district MTEF process for 2008</td>
<td>April 2007</td>
<td>Ongoing; in the process of developing 2008 budget in line with MTEF</td>
</tr>
<tr>
<td>Improve supervision, M&amp;E components using HIRD monitoring framework</td>
<td>April 2007</td>
<td>Tools for monitoring prepared; monitoring has begun</td>
</tr>
<tr>
<td>Plan integrated MCH campaign in late 2007</td>
<td>April 2007</td>
<td>Campaign conducted</td>
</tr>
<tr>
<td>Invest in Basic and Emergency Obstetric Care in a systematic manner after a review of the costed 5-Year Strategic RCH Plan to ensure that it fits into the 5 Year POW</td>
<td>April 2007</td>
<td>Funds allocated for the procurement of Basic and Emergency Obstetric Care equipment</td>
</tr>
<tr>
<td>Undertake small area variation analysis of capacities and performance in all regions as basis for improving targeting of services to poor and vulnerable</td>
<td>April 2007</td>
<td>MOH awaiting proposals and cost estimates from the School of Public Health</td>
</tr>
<tr>
<td>Develop comprehensive IEC/BCC and social mobilisation strategy to promote better utilisation of health services</td>
<td>April 2007</td>
<td>No progress reported</td>
</tr>
<tr>
<td>Integrate mental health care more fully into the health care system, emphasising community-based care</td>
<td>April 2007</td>
<td>No progress reported; challenges of implementing mental health component of POW discussed at November 2007 Health Summit</td>
</tr>
<tr>
<td>UNICEF to provide TA for the implementation of the M&amp;E component of scale up of the HIRD</td>
<td>November 2007</td>
<td>No progress reported</td>
</tr>
<tr>
<td>POW 2008 targets for HIV-positive clients receiving ART to be reviewed</td>
<td>November 2007</td>
<td></td>
</tr>
<tr>
<td>MOH to finalise and approve Gender Policy by end of March 2008 and use to guide POW 208 implementation</td>
<td>November 2007</td>
<td>Gender committee established unlikely that policy will be finalised by end March 2008</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Health systems capacity</th>
<th>Aide Memoire</th>
<th>Progress</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete HRH strategic plan before end June 2007 to serve as input to POW 2008</td>
<td>April 2007</td>
<td>Strategic plan completed</td>
</tr>
<tr>
<td>Monitor impact of salary increases on retention, distribution, motivation and productivity in the health sector</td>
<td>April 2007</td>
<td>Included in POW 2007 independent review TOR; no specific system in place to monitor impact</td>
</tr>
<tr>
<td>Task</td>
<td>Due Date</td>
<td>Progress Report</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>------------</td>
<td>----------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Increase number of facilities providing health staff with practical training and monitor quality of graduates of expanded staff training programmes</td>
<td>April 2007</td>
<td>No action taken</td>
</tr>
<tr>
<td>Start measurement of performance in HR management using indicators in 2006 annual review report</td>
<td>April 2007</td>
<td>Equity indicator has been included in POW 2007-2011 sector wide indicators</td>
</tr>
<tr>
<td>Disseminate existing incentives (including, for example, fast track promotion and training) to support staff redistribution drive by end of 2008</td>
<td>November 2007</td>
<td>No progress reported on incentives; health worker census conducted; staff postings committee established</td>
</tr>
<tr>
<td>Step up collaboration with DAs in the areas of sponsorship and development of staff housing</td>
<td>November 2007</td>
<td>No progress to date</td>
</tr>
<tr>
<td>Further decentralisation of the inputting of the payroll</td>
<td>November 2007</td>
<td>No further progress to date</td>
</tr>
<tr>
<td>Accelerate development of comprehensive HMIS plan as part of POW 2007-2011 to rationalise data collection</td>
<td>April 2007</td>
<td>A comprehensive assessment of the HMIS has been completed at national and sub-national level; the DHMIS is being scaled up using lessons from 20 pilot districts; the central repository is under construction with the engagement of a software engineer to work on system for capturing and handling agency data; the MOH website is being used to disseminate data</td>
</tr>
<tr>
<td>Use demographic surveillance sites to track key MDG indicators</td>
<td>April 2007</td>
<td>MOH, together with WHO, has visited all sites and is developed a plan to use the sites for MDG tracking</td>
</tr>
<tr>
<td>DPs to support MOH to complete CIP</td>
<td>April 2007</td>
<td>CIP III to be approved by end June 2008</td>
</tr>
<tr>
<td>Engage and communicate with MOLGRDE on DA contribution to construction of CHPS compounds, by end March 2008</td>
<td>November 2008</td>
<td>No progress reported</td>
</tr>
<tr>
<td>Governance and financing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Greater efforts by MOFEP, MOH and DPs to ensure timely release of funds</td>
<td>April 2007</td>
<td></td>
</tr>
<tr>
<td>DPs to reduce amount of earmarked funding</td>
<td>April 2007</td>
<td></td>
</tr>
<tr>
<td>MOH to establish Health Financing Task Force to review situation and prepare a health financing strategy by end December 2007</td>
<td>April 2007</td>
<td>No progress to date; DANIDA-supported TA to assist on health financing commencing April 2008</td>
</tr>
<tr>
<td>Under leadership of the Chief Director MOH, a meeting will be organised and bilateral discussions held to increase the amount of earmarked funding filling a gap; this should increase the efficiency of resource allocation in the POW 2008</td>
<td>April 2007</td>
<td>Ongoing; meetings held with all DPs</td>
</tr>
<tr>
<td>MOH and DPs will collaborate to finance and pilot a programme for subsidising registration of the poor who are not classified as indigents under the NHIS</td>
<td>April 2007</td>
<td>No progress reported</td>
</tr>
<tr>
<td>DPs to submit information on future annual financial contributions for POW 2008 and for Five Year POW 2007 –2011</td>
<td>April 2007</td>
<td>Contributions for 2008-2011 have been received from the following: DANIDA; DFID; RNE; WHO; UNICEF; JICA; World Bank (2008); USAID; Spanish Protocol (2008); GF (2008)</td>
</tr>
<tr>
<td>MOH to consider creation of a special fund to deal with financing of unexpected epidemics, incidental payments for assistance, delayed disbursements of funds and possibility for the construction of CHPS compounds</td>
<td>April 2007</td>
<td>TA required to develop a concept note and framework</td>
</tr>
<tr>
<td>MOH to organise workshop on efficiency gains and</td>
<td>November 2007</td>
<td>No progress reported</td>
</tr>
<tr>
<td>Identifying fiscal space for reallocation of resources</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MOH will work with earmarked donors to align earmarked funds within the budget to accelerate progress towards MDGs 4 and 5</td>
<td>November 2007</td>
<td>No progress reported</td>
</tr>
<tr>
<td>HIV/AIDS budget to be reviewed to reflect all sources of funding</td>
<td>November 2007</td>
<td>No progress reported</td>
</tr>
<tr>
<td>MOH to develop policy proposal on free ARV provision in consultation with GF CCM by end March 2008</td>
<td>November 2007</td>
<td>No progress reported</td>
</tr>
<tr>
<td>MOH will complete analysis of the financial sustainability of the NHIS with support from ILO; based on the evidence MOH will submit an options paper to Cabinet on decoupling registration of children under 18 from parents’ registration, by the end of March 2008</td>
<td>November 2007</td>
<td>No progress reported</td>
</tr>
<tr>
<td>MOH will develop and disseminate a policy brief on exemptions by end of June 2008</td>
<td>November 2007</td>
<td></td>
</tr>
<tr>
<td>MOH will initiate steps to map out new ways of identifying the poor as indicated in the POW 2008</td>
<td>November 2007</td>
<td></td>
</tr>
<tr>
<td>NHIA will pursue steps to increase enrolment in the NHIS including publicising benefits to children</td>
<td>November 2007</td>
<td></td>
</tr>
<tr>
<td>Implement steps during 2008 to improve financial management:</td>
<td>November 2007</td>
<td></td>
</tr>
<tr>
<td>- Further decentralise payroll inputting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Improve implementation of audit recommendations by setting up of audit implementation committees at BMC level</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Establish budget committees</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Strengthen internal audit system</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Improve timeliness of financial reporting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Review ATF rules</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DPs to provide technical and financial support to MOH to conduct a needs assessment as the basis for strengthening health sector PFM by end of June 2008</td>
<td>November 2007</td>
<td></td>
</tr>
</tbody>
</table>
ANNEX 5: Holistic assessment

The holistic assessment is a structured methodology that aims to provide a balanced assessment of health sector performance and progress in achieving the objectives of the POW 2007-2011, to inform sector level and MDBS dialogue between GOG and DPs. The holistic assessment is based on the POW 2007-2011 sector-wide indicators, targets and milestones, annual POW indicators, targets, budget and capital investment plan, and annual MOH financial statement. It comprises three separate assessments:

1. Holistic colour code assessment – assessment of overall progress, based on assessment of trends for indicators in the POW 2007-2011 that are measured annually (22 of 34 indicators) – i.e. indicators related to Goals 2 and 3 and the four Strategic Objectives – compared to the previous year and achievement of milestones in the annual POW.

2. Assessment of progress towards targets – assessment of progress over the past 3 years towards targets in the POW 2007-2011, based on indicators that are measured annually.


The outputs of 1 and 2 are included below. Specific issues identified by the independent review team in applying the holistic assessment methodology include:

- Timing of the annual independent review and the holistic assessment – The GHS Annual Report for 2007 and the Financial Statement for 2007 were not finalised at the time of the review. MOH were able to obtain data for some of the sector-wide indicators, but reporting on progress for some indicators, in particular those under Thematic Area 4, was not possible without the Financial Statement. This made it difficult to arrive at an overall score using the colour code assessment and to assess progress towards annual targets for the past three years in some areas. There is no allowance for non-availability of data in the colour code assessment.

- Changes in Goals and Thematic Areas, and hence the introduction of new indicators, between POW 2002-2006 and 2007-2011 – e.g. introduction of equity index indicators under Goal 3 and indicators relating to the NHIS under Thematic Area 4. In some cases, e.g. equity indices for services and resources, it should be possible for the MOH to calculate figures for previous years using available data. In others, e.g. percentage of IGF from NHIS, figures for 2006 and 2005 may not be available. This makes assessment of progress during the past three years challenging.

- Changes in definition of indicators between POW 2002-2006 and POW 2007-2011 – e.g. in EPI from percentage of children immunised with Penta3 and measles coverage to percentage of children aged under one year fully immunised, ANC coverage now defined as four or more visits antenatal visits. In some cases figures for indicators as newly defined are not available for previous years and this again made it difficult to assess progress over the past three years, as the team would not be comparing like with like.
Inconsistencies in figures – In some instances, different figures for baselines/achievements are cited in different documents, e.g. achievements for 2006 in the previous independent review report are different from baselines for 2006 in the POW 2007 and POW 2007-2011. The team used the figures in the independent review report.

Data sources – There is clear guidance on data sources for each indicator. However, there are some concerns about completeness of data for some indicators, as well as about inconsistencies as noted above.

Weighting – The Strategic Objectives and Milestones are given equal weighting in the colour code assessment. There may be a case for weighting that reflects the relative importance of and difficulties in achieving different objectives and the relative importance of strategic objectives and milestones, but this would need to be agreed by relevant stakeholders. For example, it is likely to take longer to address inequities in geographical infrastructure and staffing than to increase ITN use or the number of patients on ART.

Colour coding – There are different views about whether the colour coding should be just green or red or also use yellow to indicate an intermediate situation between scoring red or green. Using only red or green runs the risk of being too simplistic. Using yellow runs the risk that, if there are many yellow scores, it will be difficult to decide whether or not to disburse funds based on performance. Milestones, which relate to specific activities such as developing a plan, are likely to almost always attract a green score.

Explanation of trends – The assessment of progress during the past three years is intended to be accompanied by a discussion of factors that may have contributed to progress or regression. Analysis of factors contributing to progress or regressions will depend on the quality of data and information provided by the MOH, as the purpose of the review team is not to collect data. Independent reviews focus on different issues in different years, so it may be difficult for a review team to comment meaningfully on indicators in areas that have not been assessed in depth.

Exogenous factors – Explanation of trends also requires analysis of exogenous factors that may have played a role – in 2007, the energy crisis, and floods in some areas of northern Ghana have had an adverse impact, for example, more than 44 health facilities were affected in Upper East Region and some districts noted that there had been an increase in diarrhoeal disease – but it is unclear how the holistic assessment should determine the impact of such factors. This will necessarily be a somewhat subjective assessment and would require dialogue between DPs and the MOH.

MOH accountability – The issue of the extent to which the MOH can be held accountable for sector-wide indicators that depend on action by other actors in the health sector and by other sectors – e.g. indicators for Thematic Area 1 relate to obesity, water and sanitation and for Thematic Area 4 rely on MOFED and NHIA to a certain degree – needs to be addressed.

Based on the above, suggestions for consideration include:

Integrate the compilation of data required for the holistic assessment and the analysis of trends and reasons for these trends into the peer review process that
leads up to the independent review and include review and verification of data and analysis of trends in the independent review TOR or

- Conduct the holistic assessment as a separate exercise after the independent review, which may be more feasible in view of difficulties in obtaining complete data, in particular financial data, in time for the independent review.

- If the former approach were taken, the review team would need sufficient time to conduct the holistic assessment and for dialogue on its preliminary assessment with the MOH and DPs. If the latter approach were taken, the majority of work on data and trend analysis would still need to be done beforehand.

- Give higher weighting to strategic objectives than to milestones, since the latter relate to specific activities i.e. inputs rather than outcomes, and do not give much indication of sector performance. It may make sense to integrate milestones under each strategic objective, so that they are on a par with individual indicators.

- Use a simpler colour coding, where green reflects progress on track, yellow reflects a more mixed picture or not enough evidence or too early to judge, and red reflects a reversal of progress; and base the overall assessment on the colour that receives the most scores.

1. Holistic colour code assessment

<table>
<thead>
<tr>
<th>Goals and Strategic Objectives</th>
<th>Indicator trend compared with previous year's achievement/achievement of annual milestone</th>
<th>Colour code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goal 2: Indicators</td>
<td>2 of 2 indicators positive trend</td>
<td>Green</td>
</tr>
<tr>
<td>Goal 3: Indicators</td>
<td>Assessment not possible; data not yet available or not provided</td>
<td>-</td>
</tr>
<tr>
<td>Strategic Objective 1: Milestones</td>
<td>Achieved</td>
<td>Green</td>
</tr>
<tr>
<td>Strategic Objective 2: Indicators</td>
<td>6 of 8 indicators positive trend</td>
<td>Green</td>
</tr>
<tr>
<td>Strategic Objective 2: Milestones</td>
<td>Achieved</td>
<td>Green</td>
</tr>
<tr>
<td>Strategic Objective 3: Indicators</td>
<td>Assessment not possible as data not yet available</td>
<td>-</td>
</tr>
<tr>
<td>Strategic Objective 3: Milestones</td>
<td></td>
<td>Green</td>
</tr>
<tr>
<td>Strategic Objective 4: Indicators</td>
<td>Assessment not possible as data not yet available or no data for previous year</td>
<td>-</td>
</tr>
<tr>
<td>Strategic Objective 4: Milestones</td>
<td>Achieved</td>
<td>Green</td>
</tr>
</tbody>
</table>

Overall holistic colour code: Not possible to allocate an overall score given lack of data.
## 2. Assessment of progress towards targets

<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Goal 1: Ensure that children survive and grow to become healthy and productive adults that reproduce without risk of injuries or death and age healthily (0)</strong></td>
<td>Not included in holistic assessment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Goal 2: Reduce the excess risk and burden of morbidity, disability and mortality especially in the poor and marginalised groups (2)</strong></td>
<td>2.7% (new indicator in POW 2007-2011; no target in 2005)</td>
<td>3.2 (new indicator in POW 2007-2011; no target in 2006)</td>
<td>&lt;4.0</td>
<td>2.6%</td>
<td>&lt;4.0</td>
</tr>
<tr>
<td>HIV+ prevalence among pregnant women 15-24 years</td>
<td>3.981</td>
<td>4,136 (0)</td>
<td>&lt;3,500</td>
<td>3,358</td>
<td>&lt;100</td>
</tr>
<tr>
<td><strong>Goal 3: Reduce inequalities in access to health services and health outcomes (3)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equity Index: Geography (services)</td>
<td>1.18 (118:100)</td>
<td>1:2.143 (SD NR 21.4%; BAR 45.9%)</td>
<td>1.18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equity Index: Geography (resources)</td>
<td>1: 2.05 (WR 26.5; CR 54.3) 2006 baseline</td>
<td>1:2.257 (Nurse: population UWR 1:3225; Ashanti 1:1429)</td>
<td>1:1.18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equity Index: NHIS Gender</td>
<td>Not currently measured but will be captured in 2008</td>
<td>No data available as yet</td>
<td>To be determined</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Thematic Area 1: Healthy lifestyle and healthy environment</strong></td>
<td>Not included in holistic assessment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Thematic Area 2: Provision of health, reproductive and nutrition services</strong></td>
<td>54.1%</td>
<td>44.5% (60%)</td>
<td>50% (RCH, GHS)</td>
<td>35.1%</td>
<td>65% (POW, 2008)</td>
</tr>
<tr>
<td>Antenatal care coverage</td>
<td>88.7%</td>
<td>88.4% (99%)</td>
<td>94% (RCH, GHS)</td>
<td>89.5%</td>
<td>95% (POW, 2008)</td>
</tr>
<tr>
<td>-------------------------</td>
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</tr>
<tr>
<td>% of U5s sleeping under ITN</td>
<td>33% (new indicator in POW 2007-2011; no target in 2005)</td>
<td>41.3% (new indicator in POW 2007-2011; no target in 2006)</td>
<td>60%</td>
<td>58.3%</td>
<td>55%</td>
</tr>
<tr>
<td>% of children fully immunised by age one</td>
<td>Pentax 85% Measles 83%</td>
<td>84.2% (85%) 85.1% (90%)</td>
<td>90% (children fully immunised)</td>
<td>88% 89%</td>
<td>80%</td>
</tr>
<tr>
<td>HIV+ clients receiving ARV therapy</td>
<td>3,142 (NACP, MOH) (new indicator in POW 2007-2011; no target in 2005)</td>
<td>6,000 (new indicator in POW 2007-2011; no target in 2006)</td>
<td>25,000</td>
<td>13,429 (NACP, MOH)</td>
<td>35,000 (POW, 2008)</td>
</tr>
<tr>
<td>Outpatients attendance per capita (OPD)</td>
<td>0.53</td>
<td>0.52 (0.60)</td>
<td>0.69 (GHS)</td>
<td>0.9</td>
<td></td>
</tr>
<tr>
<td>Institutional maternal mortality rate</td>
<td>197/100,000</td>
<td>187/100,000</td>
<td>180/100,000</td>
<td>224/100,000</td>
<td>150/100,000</td>
</tr>
<tr>
<td>TB treatment success rate</td>
<td>71.7% (figure for 2004) (new indicator in POW 2007-2011; no target in 2006)</td>
<td>72.6% (figure for 2005) (new indicator in POW 2007-2011; no target in 2006)</td>
<td>85%</td>
<td>76.1% (figure for 2006)</td>
<td>85%</td>
</tr>
</tbody>
</table>

**Thematic Area 3: Capacity development (1)**

| Staff: population ratio | Doctor: Population 1:10,700 (1:16,.500) Nurse: Population 1:578 | 1:10,700 (1:16,.500) | 1:9,976 | Data not yet available | 1: 5,897 |
| Data not yet available | 1: 1,266 |

**Thematic Area 4: Governance, financing and partnerships (8)**

| % GOG expenditure on health | 13.3% (indicator refers to % GOG budget spent on health) | 18% (indicator refers to % GOG budget spent on health) | 15.5% | Data not yet available |
| % non-wage GOG recurrent budget allocated to district level and below | 36% (indicator refers to % spent) | 40% (indicator refers to % spent) | 48% | Disbursed 66% item 3 (excludes HIPC) |
| Per capita expenditure on health | US$19 | US$25.4 (no target) | US$19.46 (to end September 2007) |
### Budget execution rate (by source, by line item and by level)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>Data not yet available</th>
</tr>
</thead>
<tbody>
<tr>
<td>Timeliness of budget disbursement to BMCs</td>
<td></td>
<td>Data not yet available</td>
</tr>
<tr>
<td>% of population with valid NHIS membership card</td>
<td>25%</td>
<td>42%</td>
</tr>
<tr>
<td>Proportion of claims settled within 4 weeks</td>
<td></td>
<td>Data not yet available</td>
</tr>
<tr>
<td>% of IGF from NHIS</td>
<td></td>
<td>Data not yet available</td>
</tr>
</tbody>
</table>

**Note:**
1. Figures should be interpreted with caution. Based on data provided by MOH. However, data provided includes two columns with number of nurses (under clinical care and HR); the mean was used to calculate the nurse: population ratio. Where there were no figures the region mean was used multiplied by the district population; therefore this is an approximation based on erroneous data. GHS should provide these figures and an explanation for differences in data and missing data.

### Comments on progress

**Goal 2**
There has been good progress in reducing the prevalence of HIV in pregnant women and the incidence of guinea worm. Targets for 2007 were exceeded. HIV prevalence in pregnant women increased between 2005 and 2006 but declined again in 2007, although not to 2005 levels. Guinea worm incidence also increased between 2005 and 2006, declining to below 2005 levels in 2007. At current rates of progress, the 2011 target for guinea worm may not be met.

**Goal 3**
Preliminary analysis of data indicates that equity indicators have worsened between 2006 and 2007, based on the nurse to population ratio and the proportion of women delivered by a skilled attendant in the best and worst regions. However, further analysis of data is required before any firm conclusions can be drawn. MOH were asked to check and confirm figures but no response was received in time for this version of the report.

**Thematic Area 2**
Progress towards targets for provision of health, reproduction and nutrition services is mixed. Child health, OPD and ANC attendance and HIV and TB treatment indicators showed progress. Maternal health indicators, specifically for supervised delivery and institutional MMR worsened.

- Supervised deliveries – The proportion of deliveries attended by a trained health worker declined markedly between 2005 and 2007 from 54.1% to 35.1% and targets were not achieved in 2006 or 2007. As discussed in this report, this may be due to ongoing challenges, such as inadequate dissemination and uptake of policies and inadequate training, lack of access to facilities, shortages of midwives and equipment, poor quality of care and socio-cultural barriers. Specific factors that may account for the significant decrease between 2006 and 2007 include changes in the way in which supervised deliveries are reported, the ending of exemptions for poor women for delivery care, and non-registration of pregnant women with the NHIS.
• Antenatal care – ANC coverage increased between 2006 and 2007 although in both years targets were not met. It is difficult to attribute improvement to specific factors, although HIRD funding and community education conducted through CHPS may have contributed.

• ITN use – The proportion of U5s sleeping under an ITN increased year on year between 2005 and 2007, and the target for 2007 was almost achieved. It should be noted that data reflects the annual NMCP survey which is conducted mid-year and so it is possible that the target was achieved by the end of 2007. It is difficult to attribute improvement to specific factors, although HIRD funding and community education conducted through CHPS may have contributed.

• Immunisation – The proportion of children receiving Penta3 and measles immunisation also increased year on year between 2005 and 2007 and the targets for 2007 were almost achieved. It is difficult to attribute improvement to specific factors, although HIRD funding for immunisation days may have contributed.

• HIV treatment – The number of PLHA receiving ART doubled between 2005 and 2006 and again between 2006 and 2007. However, the target for 2007 was not achieved. The fact that ART is not covered by NHIS may be one reason, but further analysis is required to explain the low uptake of ART.

• OPD attendance – OPD attendance per capita increased significantly between 2006 and 2007, reflecting the impact of expanded NHIS coverage. However, the per capita figure does not reflect the doubling of utilisation reported by NHIA and by health facilities visited during the review and further analysis of data may be required.

• Institutional MMR – After improving between 2005 and 2006, the institutional MMR worsened between 2006 and 2007. Anecdotal evidence suggests that financial barriers are critical, in particular the end of exemptions and late reporting for delivery by women who are not registered with the NHIS, especially in cases of obstetric emergency. It is also possible that increased institutional MMR reflects worsening quality of care. However, further analysis will be required to determine the reasons for the increase in the institutional MMR. This analysis should be assisted by the increased proportion of maternal deaths that are audited.

• TB treatment – Figures indicate continued improvement in TB treatment success rate over the past 3 years, although the target for 2007 was not met. It should be noted that figures reflect the previous year, given the length of TB treatment.

Thematic Area 3
Data are not yet available to comment on progress during 2007. Figures for 2005 and 2006 indicate a worsening of the overall ratio of health staff (doctors and nurses) to population. It is not possible to judge whether the reported positive effect of the salary rationalisation on attrition and the increased output of certain cadres of health worker will be reflected in an improvement in the figures for 2007.

Thematic Area 4
With the exception of the proportion of the population with an NHIS card, which increased from 25% in 2006 to 42% in 2007, meeting the target for 2007, it is not possible to comment on progress towards the indicators in this Thematic Area as data are not yet available or verified.
ANNEX 6: RCH policy framework

Ghana works within a number of policy frameworks relevant to improving Reproductive and Child Health. National policies include the Highly Indebted Poor Countries (HIPC) initiative which lays out a poverty reduction framework that aims to improve the quality of life of the people. The health sector has defined an overall programme of essential interventions to be generated through public and donor financing:

- Accelerate the reduction of wide geographical gaps in UMR and MMR and malnutrition in the three Northern and the Central regions.
- Institute a High Impact and Rapid Delivery (HIRD) programme to reduce disease burden.
- Implement a policy of community-based health care delivery, the Community Based Health Planning and Services (CHPS) initiative, which includes nutrition surveillance and outreach services.

Population
The country's objectives in population policy are to reduce fertility and mortality (especially infant and maternal mortality) to desirable levels, ensure quality RH care for all, halt the spread of the HIV/AIDS pandemic, integrate population factors into development planning at all levels, ensure proper management of the environment, and create and promote a conducive legal, policy and institutional environment to support the implementation of population programmes at national, regional and district levels.

Abortion
The 1985 reform of the criminal code included a law permitting abortion if a pregnancy is the result of rape, incest or "defilement of a female idiot"; if the pregnancy threatens the woman's physical or mental health; or if there is substantial risk that the child would suffer from a serious deformity. However, existence of this law does not guarantee women's access to abortion services. To begin with, safe abortion was not integrated into the national reproductive health policy until 2003.

In 2006, GHS – in collaboration with Ipas Ghana, WHO and other stakeholders – released safe abortion standards and protocols. These guidelines outline the principles of comprehensive abortion care, which includes non-biased counselling and provision of post-abortion contraceptives to reduce the chance of repeat unintended pregnancies. In 2007, Ipas and the GOG surveyed the staff of 90 health care facilities – 485 women and 138 men – to find out how able and willing they are to provide safe abortion services, as part of a government initiative developed in 2006, Reducing Maternal Morbidity and Mortality, that provides for contraception and abortion care. The Ipas study noted that nearly 48% of health care workers are unsure when the law permits an abortion. Half of those surveyed said they were hesitant to offer abortion care because of their religious beliefs.

Post-abortion care
In 2006, obstetrician-gynecologists and policymakers spearheaded policies to promote PAC and CAC services by midwives and medical assistants with midwifery training. Yet many midwives are not aware that their scope of practice includes performing uterine evacuation. In facilities which have copies of these reproductive health policies, midwives are more likely to use their PAC training, suggesting the value of policy education and dissemination. A recent study illustrates that clinical care provided before and after the introduction of the fee exemption policy increased
delivery at facilities, but there was no focus on improving the quality of care (Ghana Medical Journal, September 2007).

Adolescent sexual and reproductive health
National Policies on Adolescent Sexual and Reproductive Health (ASRH) include the Population Policy of 1994, the Youth Policy, the Adolescent Sexual and Reproductive Health Policy, and the AIDS/STI Policy. All these policies contain linkages with the Ministry of Education (MOE) as an institution with defined roles. In the Youth Policy, the Ministry of Youth and Sports (MOYS) identifies health problems and challenges regarding sexuality and reproductive health such as teenage pregnancy, early marriage and parenthood. Priority areas for action in the policy include the strengthening linkages between education and training. The Population Policy identifies the issue of STI and HIV/AIDS as affecting the population and that SRH is to be promoted through counselling, IEC and FP services offered to various categories of adolescents in order to minimise problems relating to SRH, early marriage or parenthood and teenage pregnancies. The ASRH Policy identifies the need for sexuality education. The policy recognises that adolescents and young people need accurate and reliable information about their sexuality and will behave responsibly when they are well informed. The primary beneficiaries are adolescents in and out of school. One of the objectives of the policy is teaching of population and family life education in the school curriculum. SHEP has been introduced in schools, guidance and counselling coordinators, school social services are being provided, and girls' education coordinators have also been appointed. Under the Institutional Framework of the ASRH Policy, the MOE is identified as an important player in the formulation and implementation of ASRH policies and programmes. However, this is not reflected in the MOE Policy and Strategy, nor is the education sector involved in regional and district planning and reviews to link progress made in addressing ASRH. Implementation of the ASRH policy is not scaled up, as evidenced by the few facilities with adolescent health corners where FP and other services could be provided.
ANNEX 7: Health systems capacity analysis

Annex 7A: Human resources

Table 1. Indicative regional midwives distribution pattern

<table>
<thead>
<tr>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Eastern Region</td>
<td>2,258,352</td>
<td>329</td>
<td>6,864.29</td>
<td>2,289,969</td>
<td>334</td>
<td>6,856.19</td>
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<td>Ashanti Region</td>
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<td>8,406.22</td>
<td>4,415,554</td>
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<td>8,207.35</td>
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<tr>
<td>Northern Region</td>
<td>2,090,400</td>
<td>163</td>
<td>12,824.54</td>
<td>2,148,930</td>
<td>233</td>
<td>9,222.88</td>
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<tr>
<td>Upper East Region</td>
<td>971,820</td>
<td>131</td>
<td>7,418.47</td>
<td>982,510</td>
<td>148</td>
<td>6,638.58</td>
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<tr>
<td>Upper West Region</td>
<td>627,287</td>
<td>129</td>
<td>4,862.69</td>
<td>637,951</td>
<td>149</td>
<td>4,281.55</td>
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<tr>
<td>Brong Ahafo Region</td>
<td>2,053,967</td>
<td>210</td>
<td>9,780.80</td>
<td>2,105,317</td>
<td>246</td>
<td>8,558.20</td>
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<tr>
<td>Central Region</td>
<td>1,768,352</td>
<td>196</td>
<td>9,022.20</td>
<td>1,805,488</td>
<td>219</td>
<td>8,244.24</td>
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<td>G Accra Region</td>
<td>3,603,770</td>
<td>576</td>
<td>6,256.55</td>
<td>3,762,337</td>
<td>628</td>
<td>5,990.98</td>
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<tr>
<td>Western Region</td>
<td>2,252,858</td>
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<td>13,098.01</td>
<td>2,324,949</td>
<td>209</td>
<td>11,124.16</td>
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<tr>
<td>Volta Region</td>
<td>1,796,805</td>
<td>322</td>
<td>5,580.14</td>
<td>1,830,942</td>
<td>370</td>
<td>4,948.49</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>21,693,973</strong></td>
<td><strong>2736</strong></td>
<td><strong>7,929.08</strong></td>
<td><strong>22,303,947</strong></td>
<td><strong>3074</strong></td>
<td><strong>7,255.68</strong></td>
</tr>
</tbody>
</table>

Source: HRH Directorate, MOH, March 2008

Table 2. Indicative regional community/enrolled nurses distribution pattern

![Bar Chart]

Source: HRH Directorate, MOH, March 2008
Table 3. Indicative regional professional nurses distribution pattern

Source: HRH Directorate, MOH, March 2008

Table 4. Indicative regional medical officers distribution pattern

Source: HRH Directorate, MOH, March 2008
Annex 7B: Health Management Information

Figure 1. Data collection processes and procedures

<table>
<thead>
<tr>
<th>Current function</th>
<th>Current information flow</th>
<th>Proposed improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service data</td>
<td>All CHPS/Clinics</td>
<td>Service data</td>
</tr>
<tr>
<td>Manual compilation</td>
<td>Health Centre</td>
<td>Manual compilation</td>
</tr>
<tr>
<td>Verification, data entry</td>
<td>Sub-district</td>
<td>Verification, data entry (revised DHIMs), summary generation, feedback to provide performance reviews, submission to RHAs</td>
</tr>
<tr>
<td>Compilation</td>
<td>Hospital</td>
<td>Compilation, analysis, region performance reviews</td>
</tr>
<tr>
<td>Consolidation, analysis, reports</td>
<td>DHMT</td>
<td>Public Health (RH,EPI, CH&amp;Malaria)</td>
</tr>
<tr>
<td>Strategic planning</td>
<td>RHMT</td>
<td>Consolidation, analysis, regular reports</td>
</tr>
<tr>
<td></td>
<td>CHIM</td>
<td></td>
</tr>
<tr>
<td></td>
<td>RSIMD</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Regulatory bodies</td>
<td></td>
</tr>
</tbody>
</table>

**Key**
Continuous arrow: DHIMS information flow
Interrupted arrow: Public Health information flow
Double sided arrow: information flow with feedback
Figure 2. Revised information flow and utilisation

**Proposed information flow**

- All CHPS/Clinics
- All health centres
- Sub-district
- All hospitals
- DHA (Single Repository)
- RHA (Single Repository)
- GHS/CHIM
- RSIMD

**Proposed information utilisation**

- Sub-district monthly performance review using revised DHIMs summaries
- District monthly management & quarterly stakeholder performance review using revised DHIMs summaries
- Regional quarterly management/stakeholder performance review using revised DHIMs summaries
- GHS management & ICCs stakeholder performance review using revised DHIMs summaries
- Monthly MoH management/stakeholder performance review using revised DHIMs (focus on sector-wide indicators)
<p>| NO | DISEASES                  | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | TOT |
|----|--------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1  | ANAEMIA                  | 53  | 32  | 25  | 31  | 35  | 82  | 98  | 73  | 70  | 131 | 95  | 97  | 822 |
| 2  | DIARRHOEA                | 19  | 3   | 8   | 14  | 9   | 21  | 8   | 6   | 10  | 26  | 14  | 17  | 157 |
| 3  | NEONATAL TETANUS         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 1   | 1   |     |     |
| 4  | TETANUS                  | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |     |     |     |
| 5  | MALNUTRITION             | 0   | 0   | 1   | 2   | 6   | 3   | 4   | 2   | 11  | 2   | 31  |     |     |
| 6  | MEASLES                  | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |     |     |     |     |     |
| 7  | TUBERCULOSIS             | 12  | 8   | 15  | 15  | 11  | 14  | 12  | 2   | 8   | 4   | 1   | 9   | 111 |
| 8  | C.V.A                    | 5   | 2   | 5   | 6   | 4   | 5   | 3   | 6   | 3   | 10  | 2   | 2   | 53  |
| 9  | PERTUSIS                 | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |     |     |     |     |     |
| 10 | U.T.I                    | 6   | 7   | 8   | 2   | 2   | 4   | 3   | 8   | 3   | 9   | 9   | 4   | 65  |
| 11 | HEPATITIS                | 2   | 2   | 1   | 6   | 0   | 5   | 6   | 2   | 9   | 5   | 6   | 17  | 61  |
| 12 | MALARIA                  | 144 | 115 | 129 | 81  | 87  | 235 | 203 | 166 | 287 | 366 | 242 | 230 | 2285|
| 13 | AIDS/HIV                 | 4   | 7   | 15  | 13  | 7   | 5   | 8   | 12  | 8   | 14  | 8   | 109 |
| 14 | MENINGITIS               | 0   | 2   | 8   | 4   | 1   | 0   | 0   | 0   | 0   | 1   | 1   | 17  |
| 15 | SEPTICAEMIA              | 8   | 7   | 15  | 11  | 7   | 10  | 6   | 0   | 16  | 16  | 13  | 10  | 119 |
| 16 | PNEUMONIA                | 42  | 15  | 41  | 21  | 20  | 32  | 31  | 32  | 36  | 43  | 22  | 27  | 362 |
| 17 | PSYCHIATRIC DISOR.       | 0   | 0   | 0   | 0   | 1   | 7   | 4   | 0   |     |     | 4   | 4   | 20  |
| 18 | CATARACT                 | 0   | 0   | 0   | 0   | 0   | 0   | 2   | 0   |     |     | 2   |     |     |
| 19 | ABORTIONS               | 6   | 17  | 11  | 5   | 10  | 10  | 13  | 9   | 14  | 9   | 1   | 3   | 108 |
| 20 | C.C.F                    | 1   | 0   | 1   | 3   | 1   | 1   | 0   | 4   | 3   | 5   | 3   | 1   | 23  |
| 21 | R.T.A                    | 6   | 6   | 10  | 11  | 4   | 15  | 11  | 18  | 26  | 25  | 28  | 43  | 203 |
| 22 | SNAKE BITE               | 3   | 10  | 5   | 18  | 8   | 20  | 1   | 1   | 9   | 9   | 13  | 5   | 102 |
| 23 | CARDIAC DISOR.           | 1   | 0   | 0   | 0   | 0   | 0   | 0   | 1   |     |     | 3   |     |     |
| 24 | C.S.M                    | 0   | 0   | 1   | 0   | 0   | 0   | 0   | 0   |     |     | 1   |     |     |
| 25 | HYPERTENSION             | 13  | 8   | 8   | 3   | 7   | 32  | 32  | 21  | 15  | 10  | 14  | 21  | 184 |
| 26 | A.R.T.I.                 | 1   | 2   | 1   | 1   | 2   | 2   | 1   | 4   | 6   | 11  | 10  | 8   | 49  |
| 27 | TYPHOID FEVER            | 16  | 13  | 9   | 6   | 1   | 23  | 25  | 19  | 32  | 40  | 34  | 33  | 261 |
| 28 | CELLULITIS               | 4   | 2   | 3   | 7   | 4   | 8   | 10  | 6   | 6   | 4   | 3   | 8   | 65  |
| 29 | CIRRHOSIS OF LIVER       | 5   | 3   | 4   | 3   | 3   | 4   | 3   | 10  | 7   | 6   | 6   | 12  | 66  |
| 30 | HERNIA                   | 12  | 8   | 5   | 10  | 2   | 15  | 17  | 18  | 9   | 18  | 19  | 15  | 148 |
| 31 | HYDROCELE                | 6   | 4   | 3   | 7   | 0   | 10  | 8   | 4   | 3   | 4   | 10  | 2   | 61  |
| 32 | GYN. DISORDERS           | 9   | 22  | 9   | 15  | 3   | 7   | 38  | 3   | 21  | 6   | 6   | 139 |
| 33 | PREG &amp; REL. COMP         | 7   | 11  | 1   | 0   | 18  | 14  | 8   | 1   | 17  | 9   |     | 86  |
| 34 | INTESTINAL OBST.         | 3   | 1   | 1   | 2   | 1   | 0   | 2   | 0   | 2   | 3   | 1   | 16  |
| 35 | ACUTE ABDOMEN            | 6   | 4   | 0   | 1   | 2   | 3   | 3   | 0   | 2   | 3   | 1   | 25  |
| 36 | P.I.D                    | 0   | 2   | 2   | 0   | 3   | 6   | 3   | 2   | 2   | 2   | 1   | 23  |
| 37 | BURNS                    | 2   | 1   | 5   | 1   | 2   | 1   | 3   | 2   | 0   | 3   | 1   | 21  |
| 38 | DYSENTRY                 | 6   | 3   | 8   | 3   | 4   | 6   | 8   | 18  | 17  | 9   | 15  | 10  | 107 |
| 39 | APPENDICITIS             | 2   | 1   | 5   | 4   | 0   | 7   | 2   | 4   | 3   | 5   | 2   | 2   | 37  |
| 40 | NEONATAL SEPSIS          | 0   | 2   | 0   | 1   | 0   | 0   | 0   | 0   |     |     | 3   |     |     |
| 41 | R.O.U                    | 0   | 1   | 0   | 0   | 0   | 1   | 0   | 1   | 2   | 2   | 2   | 3   | 12  |
| 42 | MALARIA IN PREG.         | 7   | 13  | 13  | 1   | 13  | 20  | 12  | 2   | 24  | 26  | 3   | 134 |
| 43 | TYPHOID PERFORATION      | 2   | 1   | 0   | 0   | 1   | 11  | 0   | 0   | 2   | 4   | 7   | 28  |
| 44 | HEPATITIS B              | 2   | 0   | 4   | 1   | 1   | 0   | 1   | 0   |     |     |     | 9   |     |</p>
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<th>0</th>
<th>3</th>
<th>1</th>
<th>2</th>
<th>2</th>
<th>0</th>
<th>0</th>
<th>8</th>
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<td>184</td>
<td>234</td>
<td>211</td>
<td>164</td>
<td>126</td>
<td>324</td>
<td>219</td>
<td>97</td>
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<tr>
<td>TOTAL</td>
<td>606</td>
<td>485</td>
<td>577</td>
<td>544</td>
<td>493</td>
<td>805</td>
<td>715</td>
<td>783</td>
<td>903</td>
<td>923</td>
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<td>REFERRAL IN</td>
<td>359</td>
<td>296</td>
<td>291</td>
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<th>Admission Status</th>
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<th>0YRS</th>
<th>5YRS</th>
<th>0YRS</th>
<th>5YRS</th>
<th>0YRS</th>
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<th>0YRS</th>
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<td>Admitted Under 5YRS</td>
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<tr>
<td>Admitted Above 5YRS</td>
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<td></td>
<td></td>
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<tr>
<td>Dying Under 5YRS</td>
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<tr>
<td>Dying Above 5YRS</td>
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<td>1</td>
<td>9</td>
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Source: Bolgatanga Regional Hospital Records Office
Annex 7C: 2007 Capital Investment Plan

Table 1. 2007 Planned Capital Investment

<table>
<thead>
<tr>
<th>Activity</th>
<th>Budget (mill cedis)</th>
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<tr>
<td>Health infrastructure</td>
<td>634,789</td>
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<tr>
<td>Procurement of equipment</td>
<td>108,000</td>
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<tr>
<td>Procurement of vehicles</td>
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</tr>
<tr>
<td>Procurement of ICT for health institutions</td>
<td>0</td>
</tr>
<tr>
<td>Subtotal</td>
<td>742,789</td>
</tr>
<tr>
<td>Construction of NHIS Secretariat building</td>
<td>20,000</td>
</tr>
<tr>
<td>Komfo Anokye A&amp;E Centre financed from NHIF and HIPC</td>
<td>128,440</td>
</tr>
<tr>
<td>NHIS Secretariat capital expenditure</td>
<td>14,740</td>
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<tr>
<td>Capital expenditure for DMHIS</td>
<td>130,370</td>
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<tr>
<td>Reserved fund</td>
<td>46,790</td>
</tr>
<tr>
<td>Subtotal</td>
<td>340,340</td>
</tr>
<tr>
<td><strong>GRAND TOTAL</strong></td>
<td><strong>1,083,129</strong></td>
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</table>

Source: 2007 POW

Table 2. Capital Investment Plan and budget

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<tr>
<th>2007 MOFEP approved budget</th>
<th>Allocations approved budget</th>
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</thead>
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<td>Source</td>
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<tr>
<td>GOG</td>
<td>10,328</td>
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<tr>
<td>Donor</td>
<td>-</td>
</tr>
<tr>
<td>Earmarked</td>
<td>42,027</td>
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<tr>
<td>NHIS</td>
<td>34,034</td>
</tr>
<tr>
<td>IGF</td>
<td>3,293</td>
</tr>
<tr>
<td>HIPC</td>
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</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>91,183.69</strong></td>
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Source: Progress report on Implementation of 2007 Capital Investment Plan

Table 3. Capital Investment Plan expenditures

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<tr>
<th>Funding source</th>
<th>2007 approved budget</th>
<th>Adjusted budget</th>
<th>Actual</th>
<th>Remarks</th>
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<td></td>
<td>GH¢</td>
<td>GH¢</td>
<td>GH¢</td>
<td></td>
</tr>
<tr>
<td>GOG</td>
<td>10,328,800.00</td>
<td>7,746,600.00</td>
<td>6,390,930.00</td>
<td>Reduced due to energy crisis</td>
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<tr>
<td>HIPC</td>
<td>1,500,000.00</td>
<td>15,000,000.00</td>
<td>17,705,175.63</td>
<td>Existing contract in adjustment not earlier captured and reallocation of un-utilised service delivery funds for on-going project</td>
</tr>
<tr>
<td>Miscell.</td>
<td>-</td>
<td>1,674,030.00</td>
<td>986,448.62</td>
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<tr>
<td>Donor</td>
<td>-</td>
<td>6,869,601.00</td>
<td>5,575,644.62</td>
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</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>11,828,800.00</strong></td>
<td><strong>31,290,231.00</strong></td>
<td><strong>30,658,198.87</strong></td>
<td></td>
</tr>
</tbody>
</table>

Source: Progress report on Implementation of 2007 Capital Investment Plan
Table 4. Regional availability of vehicles

<table>
<thead>
<tr>
<th>Region</th>
<th>Total No of vehicles</th>
<th>Roadworthy vehicles</th>
<th>% roadworthy vehicles</th>
<th>No of motorbikes</th>
<th>Roadworthy motorbikes</th>
<th>% roadworthy motorbikes</th>
<th>Facilities with ambulances</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eastern Region</td>
<td>58</td>
<td>51</td>
<td>87.93</td>
<td>181</td>
<td>148</td>
<td>81.77</td>
<td>24</td>
</tr>
<tr>
<td>Ashanti Region</td>
<td>56</td>
<td>48</td>
<td>85.71</td>
<td>136</td>
<td>119</td>
<td>87.50</td>
<td>20</td>
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<tr>
<td>Northern Region</td>
<td>42</td>
<td>28</td>
<td>66.67</td>
<td>346</td>
<td>205</td>
<td>59.25</td>
<td>16</td>
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<tr>
<td>Upper East Region</td>
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<td>24</td>
<td>70.59</td>
<td>229</td>
<td>197</td>
<td>86.03</td>
<td>18</td>
</tr>
<tr>
<td>Upper West Region</td>
<td>40</td>
<td>24</td>
<td>60.00</td>
<td>299</td>
<td>170</td>
<td>56.86</td>
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</tr>
<tr>
<td>Brong-Ahafo Region</td>
<td>36</td>
<td>30</td>
<td>83.33</td>
<td>161</td>
<td>103</td>
<td>63.98</td>
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<tr>
<td>Central Region</td>
<td>29</td>
<td>25</td>
<td>86.21</td>
<td>157</td>
<td>124</td>
<td>78.98</td>
<td>10</td>
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<tr>
<td>Greater Accra Region</td>
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<td>11</td>
<td>78.57</td>
<td>38</td>
<td>21</td>
<td>55.26</td>
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<tr>
<td>Western Region</td>
<td>46</td>
<td>28</td>
<td>60.87</td>
<td>161</td>
<td>75</td>
<td>46.58</td>
<td>6</td>
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<td>Volta Region</td>
<td>44</td>
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<td>70.45</td>
<td>234</td>
<td>153</td>
<td>65.38</td>
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<td><strong>TOTAL</strong></td>
<td><strong>399</strong></td>
<td><strong>300</strong></td>
<td><strong>75.19</strong></td>
<td><strong>1,942</strong></td>
<td><strong>1,315</strong></td>
<td><strong>67.71</strong></td>
<td><strong>129</strong></td>
</tr>
</tbody>
</table>

Source: National data by district 2007

Figure 1

Regional Average Age (Vehicles)-Nov 07

Source: Transport Report
Source: Transport Report