# Ministry of Health, Ghana

# HEALTH SECTOR 5 YEAR PROGRAMME OF WORK 2002 - 2006

# FIRST DRAFT – SUBMITTED FOR COMMENTS

# Independent Review of POW-2006 March 2007

**Executive Summary**

Overall sector performance

As a whole, almost all SW indicators have been slowly increasing the last 5 years. 2006 has contributed to this positive trend notwithstanding an important drop in funding. Some argue that the pace of the increase has been slow the last few years, but it seems that the increase is certain and sustainable. This can be seen as an asset of the sector-wide policies deliberately chosen by GoG and its partners. It should also be realised that maintaining high coverages is an achievement in itself (such as EPI). To further increase coverage indicators, a major challenge is to increase the sector's focus on the poor and the difficult-to-reach. Even in urban areas, there are still pockets of poverty, where output- and outcome indicators are not favorable. To achieve MDGs, it is not only important to have programmes and systems in place, but also to systematically target the poor, in terms of resource allocation, design of systems at the grassroot level, and in reporting.

Indicators on institutional care show, however, that in this area efficiency gains must be made. The utilisation of hospitals lags behind, and this should be looked at in greater detail, since a range of factors should be considered: accessibility of primary care, socio-cultural barriers, imperfections in the referral system, insufficient collaboration with other sectors, including the private sector. If these factors are better understood, this may well enhance strategic planning of increasing coverage (capital; human resources; …) countrywide.

Healthy Lifestyles and Environment

There have been calls for major changes – amounting to a virtual revolution – in global health care. Ghana's "new paradigm" – of "regenerative" health – marks the beginning of a focused effort to elevate prevention to a logical place within the sector. It is a pragmatic strategy uniquely suited to a developing country's typical financial and logistical constraints. It has the potential to not only address rising NCD incidence, but because it addresses the broader determinants of health, can assist in strengthening basic services.

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

Achieving MDGs and scaling-up services

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

The report also includes a situational analysis for each component. Findings from the child health analysis indicated that Ghana was currently not on track to meet MDG 4, and that significant commitment to new community-based strategies will be needed, along with district leadership, political will and investment. To achieve MDG 4, neonatal mortality must be reduced; and community-based delivery of proven (evidence-based) child health interventions directed at the most

common causes of mortality must be scaled up to achieve full coverage. Essential nutrition preventive actions must be included in this package of high impact interventions. The engagement of community organizations, outside of the formal health system will be critical. An illustrative package of 15 preventive and curative interventions was presented, along with an analysis of the current coverage gap for each intervention. Implementation strategies were discussed, and both short and medium term recommendations made to get Ghana "back on track" to achieve MDG 4.

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

Leadership at the highest policy and technical levels will be critical to enable government and development partners to "speak with one voice" to reduce maternal and infant/child mortality.

Strong Basic Health Services as a prerequisite for achieving MDGs

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

Institutional care indicators show that efficiency gains need to be realized. This requires thorough understanding of all factors underlying the populations' access and use of facilities.

It appears that increased salaries and other measures have reduced attrition and improved retention. The improved salaries should translate into increased productivity of the workforce and new incentives and administrative regulations should be directed at achieving better distribution and performance from staff.

Promoting a 'corporate health sector'

The team reviewed the key issue of sector governance and the concept of "corporate health" given what appears to be an increasingly pluriform sector.

Relations between ministry of health and its agencies were looked at and suggestions are given as to how to strengthen linkages, relationships and accountability systems.

These links should establish good business relationships between MOH and its agencies, reinforcing accountability of Agencies to the MOH and of the MOH to sector stakeholders.

The team recommends that a detailed institutional review should be conducted to clarify roles, responsibilities and relationships between key sector institutions. This is also particularly important given the increasing role of the NHIS as a future purchaser of care.

The sector review process needs to be revised and further internalized and specific recommendations have been made in the report.

There are opportunities for enhancing intersectoral collaboration, including working better with the private sector in increasing coverage of services.

Financing the health sector.

After a period of expansion, total per capita health expenditure has dropped by 25% in 2006. This is largely due to an apparent fall in donor support. While the GoG *share* increased by 20% compared with 2006, it has only grown 4% in real terms (less than the rate of GDP growth). In addition, while IGF has grown by 11%, this is equivalent to the inflation rate, and so implies no real growth in this source. Given that the NHIS has expanded in 2006 and is channelling funds both at the national level

(through the GoG line) but also at facility level through the IGF line, these relatively small increases are unexpected.
Looking at the GoG funding source for health as a proportion of overall GoG expenditure, it is diminishing to 13% in 2007, with an MTEF projection of 10% for 2008 and 2009.
The Health Fund reduced by 59% in real terms, while earmarked aid also seem to have reduced by 50%. For the first time in this 5 year PoW, the proportion of aid from earmarked sources is larger than non-earmarked (partly as a result of the shift to MDBS). As well as reducing in volume, aid mechanisms have become increasingly fragmented, presenting both practical challenges of aid coordination and also the challenge of how to maintain a supportive, coherent policy dialogue with the MoH.
On the expenditure side, expenditure on items 2 and 3 as a proportion of recurrent spending (one of the SWI), has increased from 10% in 2005 to 25% in 2006. This is driven by a large increase in expenditure on services. While that is welcomed, service funding is increasingly coming from earmarked sources (both in terms of earmarked aid, such as global initiatives, but also earmarking of GoG funds), which means that for flexible funding, managers have to rely on IGF. For BMCs with little or no IGF, such as DHAs and RHAs, this presents a problem.
In terms of line items, the expenditure share for PE is up (by 8%, compared to 2005), administration is down (by 3%), services is up (by 11%) and capital investment is substantially down (by 16%). While PE continues to be mainly funded by the GoG, administration now draws its main source from IGF, and capital investment is substantially derived from the HF (largely due to the absence of GoG support for this item in 2006). For services, the main sources are: GoG, IGF, earmarked funding, and then HF (in that order of importance).
Analysis by BMC reveals that the HQ level received 24% of the total expenditure in 2006, which is high relative to the targeted level of 12% (in the 5-year PoW). The teaching hospitals and psychiatric hospitals received 15% (which is lower than targeted, though the target looks rather generous). The regional level (regional administrations, plus regional hospitals, plus training institutions) received 19% (compared with a target of 23%), and the district and sub-district received 43% (compared with a target of 42%).
As a result of the drop in revenue and the relatively inflexible cost structure of the health system, the sector ran a deficit in 2006 for the first time in the 5 year PoW. Although the deficit was not large (1% of overall revenue), there has clearly also been borrowing, which show up in the drop in fund balances for the sector as a whole in 2006 (the value of total assets minus liabilities was halved in 2006, a drop equivalent to 16% of total revenue for the year).
Comparing expenditure with the budget for 2006, there is little correspondence between them, both in total amount or internal allocations. The budget for 2006 was 40% higher than actual expenditure.
Exemptions funding has dropped from 8% of recurrent funding in 2005 to 3% in 2006. This is linked to the development of the NHIS, which is intended to provide social protection. The degree to which it is set up to do so at present is questionable. The only category of exemption within the NHIS which is pro-poor is the indigents group. While just under 4% of the population were registered as indigents in 2005, in 2006 this dropped to 0.7% of the population. How and why this has occurred is not clear, but there are minimal incentives for local collectors working on a commission basis (10% of premium paid) to register a non-paying member, such as an indigent.
Coverage for the NHIS increased in 2006, though not at the rate which was rather optimistically predicted a year ago. Registration has reached 38%, but only 19% of the total population have received the ID cards which entitle them to treatment. There are many minor 'teething problems' with the NHIS, including delays in getting cards to members, problems with the system for claiming reimbursement and on-going negotiations about tariffs between the NHIS and providers.
More importantly, however, an ILO cash flow projection carried out in 2006 showed that with its current design, the national scheme is likely to go into deficit if coverage rises too quickly. 60% of members in 2006 were in the 'exempt' category – i.e. rely on transfers from the national fund to cover their costs – and premia for both exempt and paying members are low in relation to the cost of providing services. Even with its SSNIT contributions and VAT levy subsidies, the financial sustainability of the scheme is not guaranteed. For this reason, expectations of the NHIS should be reined in for the moment, and a variety of cost control measures taken.

The average annual premium paid by informal sector members in 2006 was 106,000 cedis (but with regional variations). The full figures on cost and expenditure were not yet available at the time of the review, but some partial studies suggest that cost per admission doubled between 2005 and 2006 for NHIS members, while the cost per OP visit rose by more than 50%. At the national level, a sum equivalent to 9% of overall health sector revenue was transferred to the MoH. At district level, field visits revealed that some of the district schemes are already in deficit, due both to higher costs than premia but also delays in financial transfers from the NHIF.

The equity impact of the scheme is also of concern, given that the mechanism for enrolling the poorest is weak and that the current operation of the scheme favours those with the best access to facilities. It runs the risk of increasing the marginalisation of the hard-to-reach. This requires further investigation and probably corrective action.

In the budget, HIPC funds equivalent to 7% of total expenditure were expected, but only 1.4% of total expenditure was realised from this source in the end. These funds (38 billion cedis) were used for exemptions and guinea worm eradication..

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

The 2007 budget, which is still not finalised, is 75% funded for the year. Capital investment is particularly under-funded (by more than 60%). Some donors have still not declared their intentions, in terms of funding amount or channels, for 2007.

The MoH and health agencies find themselves in a difficult position, with cost pressures (particularly the rising wages, and the pressure for them to rise further), on the one hand, and on the other hand, a resource envelope which is reducing, combined with (if we can have three hands) pressure to improve outputs and outcomes. How can this circle be squared? The answer must lie in:

- increased advocacy to raise the contribution of the GoG to the Abuja target for public spending on health;
- a renewed commitment to health by DPs;
- careful management of the NHIS so that it become a force for both increased access and increased responsiveness in the health system;
- focus within service delivery on functioning district services, which are the basis for all of the targeted interventions designed to reach the MDG[1]s; and,
- giving managers the means to reward good performance and sanction bad performance, using team or individual incentives.

[1] A costing exercise is underway to identify the costs of additional strategies to move towards the MDG targets. The MBB tool bundles services at facility, community and outreach level. Preliminary scenarios demonstrate the cost-effectiveness of outreach (preventive) work in Ghana. An initial estimate has been generated of $2.73 per capita for 'low scenario' (23% reduction U5MR; 16% reduction MMR; 13% reduction NMR). The clinical package emerged as next most cost effective, as there are already high sunk costs. The community package would require larger investment. However, the data and model is being refined and so final results were not ready at the time of this review.

**Acknowledgements**

The independent review of the annual POW was undertaken by a team of international and Ghanaian experts, at the request of Ministry of Health, Ghana. It represents the final stage of an intensive bottom-up review process that started in the districts and then passed on from there to the regions and to the national levels of the various agencies. This annual review scrutinised the fifth year of the Ministry of Health's second Five Year Programme of Work 2002-2006, being the POW 2006
The team wishes to express its sincere gratitude to all those who facilitated its work and to the Honourable Minister Major Courage Quashigah, Minister of Health. We sincerely want to thank the many government and aid agency staff, in Accra, in the regions and the districts, who were willing to share with us their time, insights and experiences. The team wishes to record special thanks to Eddie Addai for his guidance of the review and his 'sparring' with the teamleader. Many thanks to Janet Kwansah, Ministry of Health, for her efforts before and during the mission, to facilitate the team's work and to ensure logistical arrangements. The team also is grateful to Marius de Jong, the current 'lead' among the development partners, for his facilitating role in setting up various encounters between the team and representatives of key government agencies and development partners.
The independent review team included the following members: René Dubbeldam (teamleader), Sophie Witter (health economist), Diana Silimperi (child health), Julia Hussein (maternal health), Jurrien Toonen (public health and health systems development), Delanya Dovlo (HRH), Rosana Agble (nutrition), Phyllis Christian (governance issues), Richard Oppong (supply chain management, logistics). MOH added to the team four expert-counterparts: Ernestina Mensah-Quainoo (district health care), Tom Awua-Siaw (institutional care), Ahmadiel Ben Yehoda (regenerative health) and Addae Nunukum (private health care).
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# 1. **INTRODUCTION.**

**Background**

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

Ghana's overall long-term vision for growth and development was captured in the document GHANA VISION 2020 in 1993 and in the Medium Term Health Strategy towards Vision 2020 (MTHS, 1995). The second 5-years POW builds on the results obtained during the first POW, and on the findings of the 'Health of the Nation' report (MOH, August 2001). Broad policy directions are also provided by the Growth and Poverty Reduction Strategy 2006-2009 (GPRS-II; GOG, 2005). As to health and health care, the GPRS focuses on three key areas: bridging the equity gap, ensuring sustainable financing arrangements for the poor, and enhancing efficiency in the health system. As to the equity gap, a range of priorities have been determined:

- The establishment of 'close-to-client' services for the poor, including outreach activities;
- Refinement of resource allocation criteria;
- Redistribution of health workers towards the deprived areas;
- Increasing the coverage of CHPS;
- Development of high yielding strategies to reduce infant- and child mortality, and the Maternal Mortality Ratio;
- Eradication of Guinea Worm;
- Effective implementation of DOTs in TB control;
- The 'one district – one district hospital' approach in basic health services;
- Reduction of unmet need in Family Planning;
- Broadening access to good quality Essential Obstetric Care in health facilities;
- Adequate availability of essential drugs.

In terms of priority programmes, malaria control, HIV/AIDS and family planning are specifically mentioned. The introduction and gradual expansion of a nation-wide health insurance scheme would be needed to increase access to services for the poor. Efficiency within the sector would be enhanced by:

- the introduction of incentive schemes for health staff and improving accommodation,
- decentralisation of human resource management to regional levels;
- strengthening of accountability throughout the system;
- strengthening of partnerships and collaboration with private providers;
- improvement of the quality of traditional health;
- strengthening health information systems;
- clarification the roles of MOH and GHS, and institutional arrangements with District Health Assemblies; and,
- Strengthening linkages with other MDAs: Ministry of Education, Ministry of Food / Agriculture, Water and Sanitation Agencies.

According to the GPRS, the resource envelope for health and health care would have to increase (to at least US$ 20 per capita in 2007), so as to achieve these ambitions.

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

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

- Inadequate use of information to monitor performance and improve productivity."

In POW-2006, these key concerns were translated into the policy thrust for 2006. Amongst others, services for the poor, and in deprived and hard-to-reach areas, would be prioritised and scaled up. Moreover, services needed to achieve MDGs 4 (child health) and 5 (maternal health) would get special attention, including emergency services. Joint planning between MOH, its agencies and other sectors would also be further promoted, in the context of decentralisation and public private partnerships. Implications of the expansion of NHIS would be incorporated in plans and budgets. Human resource management and development would get more attention, to move towards an equitable distribution and to retain qualified staff for the country. Finally, more emphasis would be put on performance and results in terms of service outputs, service productivity ands efficiency, and health outcome.

**The report: purpose and objectives**

The main purpose of this annual review is to review the previous year's performance (i.e. achievements), but not at the expense of looking forward also to immediate steps for improvement and long term advancement. The information contained in this report is intended to help shape discussions and action at the next MOH-Development Partners Summit meeting (scheduled for April 2007).
The specific objectives of the 2006 review (see Terms of Reference; appendix ) are as follows:

1. to assess overall health sector performance in 2006, using the POW set of sector-wide indicators, with additional focus upon the achieving MDGs, in particular MDG4 and MDG5;
2. to analyse specific contributions and roles of the various actors in the pluriform sector (public, private, partners, …) to the performance of the sector;
3. to identify strengths, weaknesses, opportunities and constraints in planning and management, information management and its use, with special attention to MDGs; and,
4. to make specific recommendations on policy, programmatic measures, and investmentsd, for scaling up activities towards achieving the MDGs.

Around these broad objectives, the TORs of the independent review included a wide range of specific questions for analysis, including special attention for the area of health promotion with regard to healthier lifestyles. At the same time, the TORs required the team to provide indepths analyses in selected areas, related to achieving the MDGs and scaling-up services related to these, in particular MDGs 4 and 5. Furthermore, in its assessments, the review team should consider the changing environment of the health sector: changing aid modalities and financing arrangements (global initiatives, multi donor budget support, national health insurance), (increasing) pluriformity of the sector, and decentralisation issues.

During the briefing session on the first day of the review mission, chaired by the Director of MOH/PPME, the TORs were discussed in detail, and it was decided that – apart from the systematic assessment of performance, based on sector-wide indicators and their interpretation - the review would be shaped around the following four themes (these themes will be core themes of POW-2007):

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

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

With regard to the purpose of the findings of the independent review, the team was requested to come up with feasible and practical suggestions (HOW) to move forward, rather then to limit itself to a description of achievements and constraints in 2006.

Due to the strong focus on child health and maternal health, and on governance issues and on relatively 'new' themes, such as 'regenerative health', the team had to make compromises in terms of scope. It was not always possible to cover in great depth a range of other, important areas in the health

sector. In its recommendations on future reviews, the team also addressed the issue of focusing external reviews, and linking it to the internal reviewing procedures which are in place.

**Organisation and methodology**

As usual, the external independent review was the last step in the entire annual review process. Before the start of the independent review, MOH organised the following components of the process:

- BMC reviews and performance hearings;
- Agency and Partners performance hearings.

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

At the start of the review, MOH made available to the team a CDROM with key documentation on the period 2002-2007. These documents included review-reports, all bi-annual aide memoires (MOH – DPs), reports on key indepth studies, health partners memoranda with joint responses to reviews. Furthermore, Powerpoint presentations were made available to the team on BMC reviews at the regional level, and – immediately after the technical performance reviews (second week of the review period) – Powerpoint presentations by managers of public health programmes, institutional care, and key institutions. During the review period, regional reports were not finalised. This is logical, since the planning & management cycle for districts and regions stipulates that these should be ready by end-March. However, it explains at the same time that the team had difficulties in systematically presenting data on key-indicators by district and by other relevant variables in this report.

The expertise of the independent team mirrored the key areas identified by the MOH/Joint Partners to be the subject of in-depth attention. Three teammembers were specifically focusing on MGD related areas: nutrition, child health, and maternal health. A human resource specialist focused on key issues related to human resource management and development. Issues in health systems development and basic health services, as well as 'governance' issues, were dealt with by several teammembers. The health economist played – as usual - a key role in (financial) resource issues and financial management. To fill the gaps in the areas of expertise, MOH added to the team four experts (not all on a full time basis), on respectively basic health services, institutional care, lifestyle issues, and private health development in Ghana. As much as possible, the teammembers contacted their 'natural'counterparts within MOH and other institutions, to discuss and interpret findings.

During the review process, all teammembers held bilateral interviews with key stakeholders (see appendix…; persons met). Furthermore, several roundtables were organised with specific interest-groups around specific themes: maternal health, child health, role of DPs in supporting the POW. During this process, the support by MOH and by RNE – the current 'lead agency' among the DPS – was extremely helpful. MOH made PPME staff available to support the team in logistics. Office space was made available in Headquarters of the Malaria Control Programme.

Three field visits were conducted in respectively Volta Region, Western Region, and Greater Accra Region, to validate and supplement reports (and data) received.

During a short 1-hour debriefing session, a broad overview was given to key stakeholders on the team's key messages.

**Structure of the report.**

The Executive Summary of the Report presents the key messages of the independent review team. These messages have been presented during the debriefing session at MOH/HQ, by the end of the independent review. Chapter One simply presents the updated table (data provided upfront by MOH) with the agreed sector-wide indicators. In subsequent chapters, these indicators are discussed, by using additional available data from the routine health information system and relevant additional (survey) data. The last chapter, based on indepth analyses in throughout the report, provides an overall 'judgement' on the implementation of the POW and on performance of the sector as a whole. Chapter Two to Five follow the above mentioned four themes. In Chapter Two, an overview is given of policy

development and progress made with regard to health promotion and lifestyle issues. In Chapter Three, indepth analyses are provided on specific MDG issues, particularly on nutrition, child health, and maternal health. This chapter also provides information on other priority public health programmes (mainly based on the performance hearings during the mission). Chapter Four focuses on health systems development. Here, human resource development is highlighted; furthermore, systems development in transport and equipment management, and capital investment planning, are dealt with. Chapter Five includes sub-chapters on governance issues, and on health financing (resource envelope for the health sector; resource allocation; development of the National Health Insurance Scheme).
Any annual Review process should avoid the pitfall of being (at best) merely an historical record of the year that has "slipped by". While it is important to record and appreciate achievement, it is perhaps more important to also draw attention to those matters that could materially improve the performance of the next 5-years Programme of Work (2007-2011) by looking forward through a set of recommendations. That set of priority actions concludes the main body of the report.

Overall, the tone of this Annual Review Report is critical, but most definitely constructive. After all, the team feels that progress has been made, despite the fact that evidence to that effect is not always systematically gathered at present, nor can present methods be relied upon fully to illuminate progress in a robust and verifiable manner. After a rather hectic period of significant institutional reforms, the sector is again facing complex strategic questions. Rapidly, the international aid architecture is changing and this will have to be taken into consideration during the formulation of POW-III and CMA-III. Also, the increasing demand for 'results', both in terms of service outputs and also of health outcomes calls for robust support systems and an efficient and equitable use of the scarce resources. The team hopes that – by highlighting some of the strategic issues - it made a contribution to support GOG in its decision making.

## 2. PRESENTATION OF THE SECTOR-WIDE INDICATORS.

The table below summarises the values of the sector-wide indicators as agreed in the POW 2002-2006. The values of the indicators have been provided by MOH, at the beginning of the review. This set of indicators provides a broad view of the sector in terms of resources, processes, outputs of health services and public health programmes, as well as 'outcome', in terms of morbidity and mortality. Obviously, it is by no means possible to capture the whole sector by this limited – and to some extent arbitrary - set of indicators, but it should at least provide a fair first and fair judgement on the performance (effectiveness, efficiency, resource base) of the sector as a whole, in terms of achieving defined targets in the POW. This section of the report merely presents the set of sector-wide indicators during POW 2002-2006, as well as the agreed targets.
While (cautiously) interpreting the results of the indicators, one should also make use of existing routine information systems and additional survey data, which provide many more valuable indicators for M&E purposes. In the subsequent chapters on services, support systems, and finance, an indepth analysis will be given of activities and programmes directly related to the sector-wide indicators, with a special focus on achieving the MDGs. In these analyses, additional data will be shown, to better understand any progress or stagnation of the sector-wide indicators. In the last chapter of the report – discussion, conclusions and recommendations – the review team puts forward its collective 'judgement' on the performance of the sector. In the report, the team will also include suggestions for adapting the set of sector-wide indicators with regard to the next 5 years POW.

**Table 1: Sector-wide indicators**

| Indicator | 2004 Achievements | 2005 Achieve-ments | 2006 Targets | 2006 Achieve-ments |
|---|---|---|---|---|
| **Improved health status** | | | | |
| Infant Mortality Rate per 1000 live births | 64 | 64 | 50 | 71 |
| Under five mortality Rate per 1000 live births | 111 | 111 | 95 | 111 |
| Maternal Mortality Ratio per 100, 000 live births | 214 | NA | 150 | 187.2 |
| Under five who are malnourished | 33 | NA | 20 | 18 |
| HIV sero prevalence (%) | 3.6 | 3.1 | 2.6 | 2.9 |
| **Improved Service Outputs and Health Service Performance** | | | | |
| Preventive Services including Surveillance | | | | |
| % EPI coverage (Penta3) | 75 | 85 | 85 | 84.2 |
| % EPI coverage (measles) | 78 | 83 | 90 | 85.1 |
| AFP non polio rate (%) | 1.5 | 1.68 | >1 | 1.55 |
| Guinea worm cases | 7275 | 3992 | 0 | 2,968 |
| **Reproductive Health Services** | | | | |
| % FP acceptors | 24.3 | 22.6 | 40 | 26.8 |
| % ANC coverage | 89.2 | 88.7 | 99 | 88.4 |
| % PNC coverage | 53.3 | 52.7 | 65 | 55.9 |
| % Supervised deliveries | 53.4 | 54.1 | 60 | 44.5 |
| % Maternal deaths audited | NA | 75.6 | 50* | 52.0 |
| **Clinical Care Services** | | | | |
| Outpatient per capita | 0.52 | 0.53 | 0.6 | 0.52 |

| Indicator | 2004 Achievements | 2005 Achieve-ments | 2006 Targets | 2006 Achieve-ments |
|---|---|---|---|---|
| Hospital admission rates per 1000 population | 34.5 | 36.5 | 40 | 32.6 |
| Bed occupancy rates (%) | 63.0 | 58.4 | 80 | 50.9 |
| Under five malaria case fatality rate (%) | 2.8 | 2.4 | 1 | 2.7 |
| Tuberculosis Cure Rates (%) | 65 | ND | 65 | 67.6 |
| No. of specialized outreach services carried out | 158 | 164 | 200 | 170 |
| % Tracer drug availability | 87.5 | 84.7 | 95 | 73.8 |
| **Improved Level and Distribution Health Resources** | | | | |
| Doctor to Population ratios by regions: 1:X | 17.615 | 10.380 | 16.500 | 10.700 |
| Nurse to Population ratios by regions, 1:X | 1.513 | 1.578 | 1.500 | 1.587 |
| No. of functional CHPS zones | 84 | 190 | 400 | NA |
| % GoG budget spent on health | 8.2 | 13.3 | 15 | 18 |
| %GOG recurrent budget spent on health | 12.8 | 14.5 | 15 | 14 |
| Proportion of non-wage recurrent budget spent at district level | 37 | 48 | 43* | 31 |
| % Donor funds Earmarked | 14.9 | NA | 40 | 52 |
| % IGF from pre-payment and community insurance schemes | NA | NA | 20 | NA |
| % Recurrent budget from GOG and health fund allocated to private sector, CSOs, NGOs and other MDAs | NA | 3.1 | 2* | NA |
| % Recurrent budget spent on exemptions | NA | 8 | 8 | 3 |
| Per capita spending on health ($US) | 13.5 | 19 | | 14.3 |

(source: MOH)

## 3. **HEALTHY LIFESTYLES AND ENVIRONMENT**

### 3.1. Background

As in previous years, an accurate sector-wide and community based assessment of the burden of non-communicable disease in the country is not yet possible. However, the routine health information system shows that hypertension, diabetes, cardiovascular incidents, and other NCDs are on the rise, not only in urban zones but also – to a lesser extent - in rural areas. The role and importance of lifestyle and environment as a focal point for general health is not yet being effectively articulated in the ranks nor disseminated in the field. Funding for promotion of healthy behavior lags far behind globally, and this has typically also been the case in developing areas.

### 3.2. Objectives of POW 2002-2006/POW 2006

POW 2004 referred to a "silent NCD epidemic" and called for "an urgent and effective public health response to NCD in which health promotion is emphasized." POW-2005 echoed the need "to develop policies and programmes for addressing the non communicable diseases that are slowly becoming major health problems and yet to date we do not have a credible control programme." Priority activities were to "strengthen the health promotion unit to lead the campaign for healthy living," "develop a framework strategy for promoting health in schools, work places and communities" and "mount IEC campaigns on healthy living including healthy eating and exercise." POW 2006 emphasized that "health promotion will focus on strategies to enable individuals and households to make the right choices about healthy lifestyles."

### 3.3. Achievements

The Regenerative Health and Nutrition Training Programme (RHNP) is a central component of the MOH's current prevention-based strategy. The programme was formulated in December 2006 as an initiative of the sector minister. It is currently hosted in PPME/MOH, with intent to be seated within the Health Promotion Unit of GHS.

RHNP was the sector's response to the "double burden." The vision of the programme is to create "agents of change" – both within and without the health sector, and operating in their own spheres of influence and across a broad societal spectrum – who would become advocates and catalysts for behavioral change. The immediate (1st phase/2007-8) objectives are to reach 24 targeted districts with the RHNP message via sensitization of the spectrum of community stakeholders: local leadership (political, religious and traditional), media, schools (educators and selected students), matrons and caterers, local agency personnel (e.g. EPA and Agric officers), midwives, TBAs, etc. A series of 4 smaller-scale follow up programmes to each district is scheduled to interface with "community health committees" left in place, comprised of inter-sectoral local officials. Longer range (2nd phase/2008-9) objectives are to establish a training facility where health personnel would receive in-depth training and reinforcement.

The three main components of the training are: healthy lifestyle, nutrition and mother-child health. Topics include proper nutrition, food preparation, exercise (importance and techniques), massage (general, expecting mothers and baby), midwifery techniques, breast care, etc. A training manual is provided for all participants which contains supportive reference materials (MOH/RHNP Regenerative Health Training Manual).

RHNP activities have been well received by participants and are proceeding according to schedule. At this point of infancy it is obviously not possible to expect any measurable outcomes, nor, given the nature of such behavioral change programmes, would they be expected for some time to come.

The past year has seen commendable effort at addressing the recommendations of previous POW reviews. An aggressive initial media campaign aims to saturate the general public with the RHNP message. The sector minister visibly lends his important presence in articulating the elements of the

programme as well as attending rollouts in each of the targeted districts, while actively lobbying for inter-sectoral collaboration and cooperation.

The current "paradigm shift" (from curative to preventive), is not an abandonment of the former, but a pragmatic strategy which takes into account the limited resources and particular challenges of a developing country. Precious resources must be applied in a manner to bring the greatest return. There can be little doubt that a national campaign of prevention-based nutrition and lifestyle interventions is appropriate and cost-effective in this regard by reducing demands on an already strained sector, making it a key component of the GoG poverty reduction strategy. GoG has shown its initiative to focus in this critical area of health care and must demonstrate its (long-term) commitment by investment in the effort.

At the policy level, MOH has embarked upon a strategy which communicates that primary responsibility for health begins at the individual, family and community level, from the behavioral health perspective. Many would say that such a focus is actually not "new" at all. However, critical elements are present which were lacking earlier: 1) an increasing database reflecting the apparent "double disease burden" impact of NCDs upon Ghana (and other developing countries), 2) an increasing base of knowledge for both the risk factors and effective prevention (behavioral change) strategies for NCDs, 3) the political sensitivity and will to drive the health sector in a new direction, and 4) what is arguably the most important element, a working model (Dimona's "Village of Peace") upon which the strategy is based.

3.4. Constraints, Challenges and Concerns (and some strategic responses)

RHNP can identify and capitalize upon traditional community-based structures and organizations which can be mobilized for health promotion efforts. These include churches, schools, "keep fit" clubs, even funeral societies and "prayer camps," and perhaps most importantly, the traditional ethnic chieftaincies. Chieftaincies exercise a great deal of local administrative power and possess, in varying degrees, an important capacity for health information dissemination, compelling influence and community mobilization. These represent opportunities which would lend themselves to a sustained and effective community support for behavioral change, upon which RHNP depends heavily for success. The very nature of the RHNP message – of primary (and ultimate) responsibility for health being upon the individual and community – lends itself to the sense of community ownership of the programme. However, community leaders will need to be tasked (as part of carefully coordinated RHNP follow-up activities) with organizational planning to maintain the spirit of this idea.

MOH will have to overcome some major structural barriers and psychological impediments within the framework of the institution to succeed in the transformation effort, perhaps even in ensuring that the current administration's focus is not lost with the arrival of a new sector minister. Contrasting problems of perception must also be addressed: a public who views dispensing pills as the primary role of the sector worker and sector workers who don't yet see prevention as their job. Those who work in the sector must be transformed at the same time (e.g., few doctors have practical nutritional training, and are therefore ill-equipped to advise patients). All health centres should have staff to give basic dietary and lifestyle counseling to all NCD patients upon discharge.

The push for the consumption of iodized salt is an example of where vertical programmes may undermine efforts at improving the overall basic health. Where the message concerning the use of iodized salt is not clearly understood at the community level, there exists the possibility that the public will have the impression that iodized salt is itself a nutrient (perhaps exacerbating hypertension problems..).

Risk factors linking dietary and other lifestyle behavior to NCDs are well known. Global trends are clear and relevant research studies are widely available. Where data for increased incidence of diabetes in Ghana may be spotty, correlations may be found in the increasing sales/consumption of soft drinks and processed foods. While a keen eye is being kept on the Kintampo studies, particularly with implications on maternal and child health, there is no need for costly "Ghana-specific" research.

3.5. The review team's recommendations

A redefining of the role and scope of "disease control" and respective personnel might be undertaken. Such scope must be broadened to include the range of NCDs which, if they are to be "controlled" effectively, must be done so via a preventive strategy. Otherwise, such "control" will remain as it is now: in the hands of treating physicians whose advisements are often largely limited to the prescribing of medications and other clinically-focused interventions. This, of course, goes against the very intent of the new strategy. As an important early step in changing the focus, the GHS NCD programme officer has advocated recognizing NCDs as a public health problem, not a clinical problem.

Review and revise medical curricula to immediately include RHNP training to sensitize students prior to their entry into the sector. (Other preventive strategies and modalities can be developed later.) Refresher courses for currently enrolled nurses and other key personnel should include mandatory RHNP training.

There is good synergy between RHNP and existing MOH promotive messages (particularly as they impact on MCH). These need to be conveyed at a higher level of intensity in a coordinated media campaign, but one which conveys the entire package of behavioral changes, services and interventions. Develop a series of multi-media, multi-lingual programmes for public health outreach. This would include a series of dramatizations (even humorous) for television and radio. The current skits that comprise part of the RHNP training sessions are a basis for this. These and other tools would help to saturate the society with the RHNP message.

CHPS is a health care delivery strategy designed to reach the rural poor. So far, its implementation seems to have stagnated. Besides the uneven national rollout of CHPS, there is the problem of how to remove incentives for the sale of medications to the public. A critical look at CHPS – from a joint MOH-GHS perspective – should include the feasibility of merging with RHNP, and what changes should take place to make this possible. A more focused approach (perhaps choosing the worst 1/3$^{rd}$ of districts vs. nationwide) may also be helpful. The merging may help to revitalize the original intent of CHPS as "a model for community-based service delivery" and "a process of sector-wide health system change and development."

Health issues are inherently crosscutting and interdependent of other sectors. Responsibilities and benefits are inextricably linked (e.g. water, environment, education, agriculture, et. al.). GoG is advised to bring a focused energy to the issue – possibly via the creation of an inter-sectoral task force charged at the presidential level – to roll out the programme in a coordinated and saturated way. If financial constraints deem such a national effort unfeasible, such a rollout could take place step-by-step, on a district level, under monitored conditions, with the objective of producing a "demonstration area" and fine-tuning the elements of the programme.

Missed opportunities for cross-sector linkages: RHNP encourages the increased consumption of locally grown fruits, vegetables and other products such as rice as a means of boosting nutritional intakes. The positive economic impact has MDG 1 implications, offering leverage for tangible GoG support. Efforts to support locally-grown rice, the MFA's "Grow Ghana, Eat Ghana, Wear Ghana" campaign, and even the "National Friday Wear" campaign of the MTIPSD (RHNP encourages cultural dress) are illustrative of where allies and potential partners might be enlisted in substantive and complementary inter-sectoral collaborations.

There is some concern for the public's perception conveyed in advertisements on local television for what are clearly pharmaceutical products. Attention should be paid to Food and Drug Board oversight responsibility of media marketing ethics. In this regard, extensive self-medication of the public via liberal access to pharmacies is potentially troubling, as widespread availability has a downside with vast implications for public health. This concern extends to the "fast food" industry, an area of current debate and action in the developed world. Ghana can reign in this problem by defining guidelines early. There needs to be more scrutiny (legislative and enforcement) of food vendors. Alcohol should

be given the same attention that tobacco has received in recent years. Finally, not enough attention is being paid to animals as vectors of disease, particularly in light of recent outbreaks of animal-related strains.

## 4. CHILD AND REPRODUCTIVE HEALTH AND NUTRITION SERVICES: SCALING UP

### 4.1. Introduction.

The chapter will focus on progress made in priority health interventions in reproductive and child health (RCH) during the last year of the Plan of Work (POW), but also address advances or trends in these services over the life of the POW. The reviewers will analyze performance in RCH against targets set for the subset of sector-wide indicators related to child and maternal health, assess the Millennium Development Goal (MDG) 4 and 5 indicators with respect to the sector-wide indicators, and make suggestions for RCH indicators for the POW 2007-2011. The chapter will provide a more indepth review of programs and interventions directly linked with attaining the MDG mortality reduction goals for maternal and child health. Finally, it will examine the feasibility of reaching MDGs, and make recommendations about scaling up concrete actions and proven interventions to assure advancement toward these goals during the next POW. The full Terms of Reference (TOR) for the review team can be found in Appendix 4.1 (1) .The MDG 4&5 lens is also applied to other chapters, especially Chapter 5, Support Systems. There is a functional linkage between these two chapters, since strong system support is essential for the expansion and scaling up of the basic RCH package of effective interventions.

The chapter is divided into five sections: 4.1 is an introduction to the chapter,; 4.2 deals with child health and reaching MDG 4; 4.3 focuses on maternal health and MDG 5; 4.4 deals with nutrition and is concentrated on infant/young child nutrition in the context of MDG 4. Due to time constraints, the review team had to determine what could be realistically included in this broad TOR, and what could not. Because the Summit dates have been confirmed for mid-April, this assessment and report must be completed in a timely manner. Thus, for the record, the team notes that certain key areas were only covered in a cursory manner, or not at all. Specifically, the maternal health section focuses on obstetrical care and reducing the maternal mortality ratio, it does not address important program areas like family planning, adolescent health, STIs, reproductive tract cancers or maternal infections (HIV, malaria). Given the emphasis on nutrition in last year's review, this year we focused on infant and young child nutrition in the context of the sector wide indicator. Although Newborn Health was included, it was more from a programmatic perspective and would benefit from a more intensive review than was possible in our timeframe. With the MDG lens, the review concentrated on infants and children under 5 years; thus, school health was not included. Each section concludes with strategies and practical recommendations towards meeting MDGs 4&5. The Appendices provide more indepth information, especially on sector wide indicators, recommendations for 2007-2011 indicators, and operationalizing the recommendations.

### 4.2. MDG-4 Analysis in Context of POW

**Box 1**

**Child Health Sector Wide Indicators and MDG Goals**

MDG 4 Goals: Reduce infant and U5MR by 2/3 by 2015

- Indicators: IMR; U5MR

GoG POW Child Health Indicators

- Health Status: IMR, U5MR, [U5malnourished will be addressed under Nutrition]
- Improved Service Output:
    - Preventive Services: %EPI coverage (Pent3); % EPI coverage (measles); AFP non polio rate%
    - Reproductive/Newborn Health: % PNC coverage
    - Clinical Care: U5Malaria CF rate%

Improved Level and Distribution of Health Resources: # functional CHPS zones

**4.2.1 Sector Performance Indicators in Child Health: Targets and: Trends**

Two child health status indicators are used to measure health sector performance and were evaluated across the life of the Plan of Work (POW): infant mortality rate (IMR) and under five mortality rate (U5MR). Both of these indicators are also used to measure progress toward the MDG 4 of decreasing infant and child mortality by two thirds by 2015. In addition, 5 Service Output indicators relevant to the performance of the child health component are evaluated annually, three examining preventive services (EPI Pent 3 coverage, measles coverage and AFP non polio rate), one Reproductive Health indicator (% PNC coverage) and one indicator from Pediatric Clinical Care (U5 Malaria Case Fatality Rate). We have also included under Child Health, one indicator reflecting distribution of health resources, # functional CHPS zones, which is of particular value in the analysis of reaching less advantaged or hard-to-reach children. Note that the nutritional indicators for child health will be addressed in section 4.4 of this chapter. Likewise, given the close relationship between maternal and child health, especially neonatal health, the performance indicators for Reproductive Health Services have relevance for child health, but are reported in section 4.3.

Improving Child Health Status

Given that health status indicators are not measured annually, it is easier to review progress in these indicators over the course of the entire POW. Significantly, the targets set for health status improvements for POWII, an IMR of 50 and an U5MR of 95 have not been met. The DHS 2003 found a slowing down in infant and child mortality over the 5 years prior to the survey, with an IMR of 64 and U5MR of 111. This means that during the period covered by the survey, 1 out of every 9 Ghanaian children died before the age of 5. Nearly 3 in 5 of these death occurred in the first year, and neonatal deaths accounted for two thirds of the deaths in infancy.(GDHS 2003) The most recent 2006 MIC Survey noted the IMR to be 71 and the U5MR to be 111. During the last year, the target for improving malnutrition was met, but will be reported in Section 4.4

- Infant Mortality Rate

The Infant Mortality Rate (all deaths that occur before the first year of life, 0-11 months) is commonly accepted to be one of the key indicators of how well a society cares for its people. Since 1988, four Ghana Demographic and Health Surveys (GDHS) have been undertaken approximately every five years (1988, 1993, 1998 and 2003), thus providing population based data for determining the IMR and U5MR during a POW, as well as comparing trends in mortality before, during and following the period of evaluation for a sector performance review. The Ghana Multiple Indicator Cluster Survey (MICS) is another source for IMR and U5MR, and may be undertaken every 2-3 years, thus providing two comparisons during the 5 years of the POW. The MICS 2006 calculated infant and under five mortality rates for the five year period based on the Brass method, an indirect estimation technique. Institutional data can also be used to estimate mortality rates, but given the availability of DHS survey data, this review will focus on such population-based data.

In 2003, during the middle period of POWII, the IMR was measured to be 64 by the DHS; this rate appeared to reverse the 10 year trend of slow but continually decreasing rates from 77 in 1988 to 57 in 1998.. The 2006 MICS estimated the IMR to be 71 per 1000 live births, thus lending more credence to the worsening trend (though measured by Brass method so not directly comparable). Further examination of trends in early childhood mortality based on the 4 DHSs carried out between 1988 and 2003, indicates that postneonatal mortality (those deaths occurring after the first month of life, but before the end of the first year of life) also maintained a continual decline, decreasing by 13 points over the 15 years. In contrast, neonatal mortality (deaths during the first month of life) were relatively stagnant during this period, hovering in the low 40s, with the exception of an 11point drop in 1998, followed by a 13 point increase in 2003. This rise in the NNMR.over-powered the less dramatic decrease in the postneonatal mortality, and resulted in an increase in IMR in 2003. However, an indepth analysis of the data quality undertaken to ascertain if the 2003 apparent increase in mortality was real, or a data quality issue, found that the apparent increase in mortality in 2003 was the result of underestimations of mortality in 1998. In fact, during the last several decades, there has been very

little change in the neonatal mortality, hovering in the low 40s. (Johnson, K et al , 2005; ORC Macro, 2005).

- U5MR

The Under 5 Mortality rate measures the number of children who will die before their fifth birthday (0-4 years) out of 1000 live births. It is one of the most robust indicators for child health and is commonly used in major economic studies as a broad indicator of societal development and well being (PRSPs, MDGs etc). Ahmad's et al (2000) analysis of under-five mortality in Ghana over the last 4 decades indicates a steady decline from 1955 to 1998, with an average of 8 percent decrease per quinquennial, despite periods of turmoil and economic demise. Demographic and Health Surveys have also shown improvements in infant and child mortality rates between 1988 and 1998. It is only since the 90s, between 1998 and 2003 that infant and under-five mortality rates have plateaued. Unfortunately, both infant and U5M rates leveled off in when mortality was still quite high. The MICS U5MR for 2006 was 111. Notably, the largest improvement in rates occurred between 1988 and 93, and has been ascribed to the increased EPI coverage, especially for measles.

In Ghana, as elsewhere, as child mortality decreased, the percentage of U5 mortality due to infant mortality increased, and, the percentage of infant deaths that occurred in the first week of life assumed the greatest influence on the neonatal mortality rate. Thus, in 2003, infant mortality accounted for 75% of the U5MR, and neonatal mortality accounted for nearly 70% of neonatal mortality. Therefore, during this POW, neonatal mortality was documented to assume a leading role in child mortality and would have to be addressed programmatically in order to decrease infant and U5 mortality rates. Furthermore,
the 2003 DHS results seemed to indicate a slight upturning in the U5MR (to 111 from 108), causing significant consternation among donors and the MOH/GHS. However, as noted above, indepth analysis of the DHS data over multiple cycles found that this increase was largely a function of underestimating mortality in the 1998 survey. Thus, while there is not solid evidence in the DHS series to indicate increasing mortality, there is substantial evidence that infant and child mortality has stalled at very high levels. Furthermore, trend analysis of factors known to influence child mortality, such as vaccination coverage, diarrhea and ARI morbidity and treatment, nutritional status of child and mother, birth spacing and maternal health –seem to point to continuing problems in childhood nutrition. In addition the proportion of sick children with common childhood conditions like diarrhea and pneumonia who receive medical attention, has not increased over time. In the case of diarrhea, it has dropped precipitously from 43% in 88 to 25% in 2003. (Johnson, K et al , 2005; ORC Macro, 2005).

Trend analysis of the DHS data over the last 40plus years also indicates several shifts which have important ramifications for child health and survival, and the related service programs. Increasing urbanization is a key one; the proportion of Ghana's population living in cities has doubled since 1960. Another significant finding is the substantial improvement in educational levels since independence, especially in women, though later surveys show a leveling off and even slight decline in 2003. Desire for more children and ideal family size gradually decreased significantly in the 1980s, across all educational levels, but has remained relatively stable since the early 90s. Interestingly this pattern is consistent with the increasing child survival trends noted, leveling off (stagnating) in the 90s. (Johnson, K et al , 2005).

Since the MICS data is the most recent available (even though the report is still preliminary), it is worth noting its findings as a reflection of progress in infant and child mortality, specifically during the last years of the POW. According to this data, one in nine children born in Ghana will die before reaching its fifth birthday, and the majority (about two thirds) of these deaths will be during the first year of life. The U5MR also indicates the female survival advantage (89 deaths per 1000 live births (LB) compared with 131 deaths per 1000LB for males). Mortality advantages are also seen among children with rural residence and with more educated mothers. Also of importance programmatically are the regional variations in IMR and U5MR, with morality rates in the Upper West (IMR 114, U5MR 191), being two to nearly threes times as high as those in the Western Region (IMR 45, U5MR

66), though regional data must be interpreted with caution given that sampling errors with mortality estimates are large. (UNICEF, 2007)

Improving Child Health Services

The sector performance indicators reflecting service outputs relevant to child health are focused on immunization. Given the impact of neonatal survival on overall child survival, we have also included review of the postnatal care indicator. Appendix 4.2 (1) desribes why these indicators do not capture significant elements pertinent to the overall sector performance in childhealth. Nonetheless, during the last year, none of the targets set for these indicators were met, with the possible exception of the AFP non polio rate, related to polio eradication progress. It is important to note that although targets were not met, the overall performance of these indicators is quite good. In fact, over the course of the last 5 years, the trend in performance across the EPI indicators has consistently been high; and although there was a dip in the middle years, performance across antigens in the last two years has been particularly strong. See Appendix 4.2(1) for an indepth description of progress in those indicators related to Improving CH Services.

- EPI pentavalent coverage

Although the target of 85% was not met, a respectable coverage of 78% was achieved; MICS 2006 found 83.5% coverage and EPI annual performance shows a similar coverage for years 2005 and 2006 (respectively 85% and 84% coverage respectively However, there are significant regional variations seen in both the MICS data and program data). See Appendix 4.2 (1) for graphic depiction of progress in Penta 3 coverage .

- EPI measles coverage

Although the 2006 target of 90% was not met, a slight increase over 2005 performance was made, achieving national measles coverage of 85%. Over the course of POWII, measles coverage has consistently reached 80% or above except in 2004. The 2006 MICS found 85.4% measles coverage nationally, with regional variations. See Appendix 4.2(1) fo ra more detailed descriptioin of progress in this indicator, including graphic depiction of improvement, as well as description of performance of the AFP non polio rate..

- %PNC coverage

Given the influence of neonatal deaths in both IMR and U5MR, this process indicator has particular value as an indicator of sectorwide child health performance In 2006, %PNC coverage was nearly 56%, increasing about 3% from 2005, but still not achieving the target of 65% coverage. Over the course of POWII, this indicator has not varied greatly, ranging between 53 and 56% coverage. The 2003 DHS found that 1 in 4 mothers delivering outside of facilities received PNC within 2 days of delivery, 1 in 10 within 3-6 days after delivery, and 1 in 8, 7-41 days post delivery. Most significantly, more than half of the women who had noninstitutional births did not receive any post natal care! See Appendix 4.2(1) for a more detailed description of this indicator.

- U5 malaria CF rate

From the data presented at the Annual Riew, gradual decrease in CFR is shown each year from 2.9 in 2002 to 2.1 in 2006, effectively achieving the target of 2. However, variations are seen across regions, with CFRs over 3 in 3 out of the 5 regions reporting in 2002. However, steady progress appears to have been made in decreasing U5 CFRs in Upper West and Brong Ahafo, while Northern and Upper East suffered increased fatality in 2006, after having made some progress in previous years. Appendix 4.2(2) includes a discussion about why this may not be the most useful indicator to gage sector performance; it is not even one of the program performance indicators in the Rollback Malaria Strategic plan for Ghana.

Improving Level and Distribution of Health Resources (reaching children)

- # functional CHPS zones

Although this indicator is not specifically focused on equitable distribution of health services reaching children, given that children are commonly the most vulnerable in the society, and their health status can change/worsen rapidly if they do not receive appropriate care, they are particularly sensitive to improvements in distribution of health resources/services, in this case access to community-based care. Although progress had been slower than desired during this POW, since 2002 ther has been steady improvement, with a big leap in 2005, when the CHPS target of 250was surpassed, with the

completion of 270 CHPS compounds. However, the 2005 External Review noted that only 186 were functional, with a CHO in place, registering households and providing community-based services to families and children. The team was not able to review the achievement for 2006.
Source documents for this section included: Johnson, K et al, (2005); ORC Macro, (2005), GDHS (2003); MOH, (2005); Bainson,K et al, (2005),UNICEF (2007)

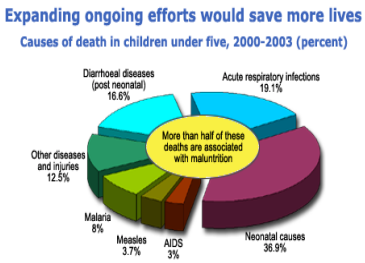
### 4.2.2 Situational Analysis

Evidence Based Newborn and Child Health Interventions to Reach MDG 4

- Burden of Disease

During the SPA, an analysis of the Burden of Disease in Ghana found that malaria was responsible for 56% of the burden in <1 yos, followed by ARI (11%),diarrheal diseases (8%), skin diseases (4%), anemia (3%) and pneumonia (2%). In 1-4 yos, malaria was again first (57%), followed by the same conditions, except that intestinal worms replaced pneumonia, with only slight variations in burden percentiles. (MOH 2002, MOH 2004). Malaria has been the number one cause of death in children under 5 years throughout this POW; and again in 2006, it was responsible for almost 30%of under-five deaths in Ghana and 53% of all Pediatric admissions (Annual Review 06 , Malaria Control Program). After malaria, the main causes of <5 hospital admissions in 2006 were Anaemia, Diarrheal Diseases, Pneumoni and Malnutrition/Nutritional Disorders. Malaria, ARI, Diarrheal were the top causes of <5 OPD visits, followed by skin diseases, anaemia and pneumonia.. Fortunately, HIV/AIDS is not a major contributing causer to infant and child morbidity and mortality in Ghana at this time.

*Source:www..org childinfo*




The adjacent pie chart and table in Appendix 4.2(3) illustrate the six conditions responsible for the majority of global under-five deaths between 2000-2003. Although the same conditions are killing infants and young children in Ghana, the proportions are different since Ghana fits the global disease burden pattern for a country with endemic malaria, but with low HIV prevalence. Nonetheless, these are the diseases or conditions that Ghana must prevent or treat to increase her children'

**Figure 1**

- Evidence-based Interventions

Twenty three technical interventions, both preventive and curative have been analyzed and ranked according to the evidence of their effectiveness and ability to avert childhood deaths from the most common diseases/conditions noted above. Universal coverage (99%) of these 23 interventions would reduce 2/3 of all <5 child deaths in the world. A core set of 6 intervention combinations would reduce over half of all child deaths in settings with high child mortality like Ghana. The most effective preventive intervention is breastfeeding with the ability to avert 13% of under-five deaths, followed by ITNs (7%) and complementary feeding (6%). Oral rehydration therapy (ORT) is the most effective intervention we have; full coverage would avert 15% of the under-five deaths. Other effective curative interventions include: antibiotics for sepsis (6%), antibiotics for pneumonia (6%) and antimalarial (5%). (Jones, G et al ,2003; Darmstadt, G ,2005) (See Appendix 4.2 (3) for a table of the 23 most effective interventions)

The MOH and GHS have adopted and are implementing two key strategies to deliver a package of these evidence-based, effective interventions: IMCI and Essential Nutrition Actions; more recently, the MOH/GHS and partners have also adopted a new strategy, called High Intensity, Rapid Delivery (HIRD) which aims to rapidly deliver a core package of MCH proven interventions through community organizations and volunteers.
See Appendix 4.2 (4) for selected key interventions included within these strategies and estimated deaths averted if reached scale.

In addition to coverage, the quality of delivery must be assured for the intervention to be effective and impact mortality. Performance indicators should thus reflect both dimensions, coverage and quality. In

the following section, we will analyze the implementation of the POW:2006 and its ability to deliver these strategic evidence-based interventions through priority programs at district, subdistrict and community levels
Source documents for this section included: (Jones, G et al ,2003; Victoria, C et al ,2003; UNICEF, USAID, WHO, WB et al ,2006; MOH, 2002)

Situational Analysis: Current Status
One of the challenges in reviewing Child Health across the sector is that the various evidence-based interventions are delivered through diverse programs and channels.See Appendix 4.2 (5): Mapping Child Survival Interventions Across MOH Programs. Currently, there is no overarching, updated Child Health Policy and Strategy that takes into account the diverse implementing programs involved with the delivery of proven newborn and child health interventions . However, as mentioned above, there is a growing consensus among the leadership of GHS/MOH and development partners, to support a *prioritized* package of High Impact, Rapid Delivery (HIRD) MCH interventions which can form the basis for *systematic* implementation through community-based organizations/volunteers.

- POW 06 Progress in Child Health:

As described earlier, targets were not met in 06 for any of the CH indicators except Malnutrition (which is reported separately in this chapter). In fact, although progress in child health seems to have stalled throughout the POWII tenure (at least as indicated by the CH performance indicators), it is notable that performance has not worsened: Penta (3) coverage over 75% has been maintained since 2002; <5 malaria mortality rate has continued to decline and PNC coverage has ranged between 53 and 55%. However, given the fact that financial support for the implementation of the overall plan was significantly less in 2006, at least for district and subdistrict level activities and services, "holding the line" this year may represent actual achievement. Accepting that decreased flexible funding may have adversely affected performance in 06, the lack of decline in key CH indicators is quite important (see below table). And, the fact remains that unmet targets have been a regular finding in most of the annual reviews during this POW, as the table below also illustrates. Such may indicate a need for better, more realistic planning for child health, including better use of existing data, but should not form the basis of an indictment for failure to perform.

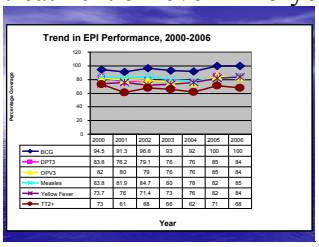
**Table 2Trends in Child Health Sectorwide Indicators**

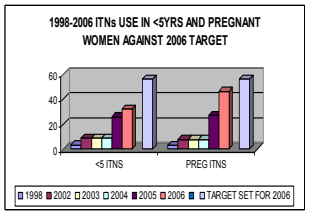
| Variable | 2002 Target | 2002 Actual | 2003 Target | 2003 Actual | 2004 Target | 2004 Actual | 2005 Target | 2005 Actual | 2006 Target | 2006 Actual |
|---|---|---|---|---|---|---|---|---|---|---|
| Penta 3 | | 77.9 | 0 | 76. | | 76.0 | 85.0 | 85.0 | 85.0 | 78.0 |
| Measles | | 83.7 | | 79 | | 78 | | 83 | 90 | 85 |
| <5 malaria CFR | | 3.7 | | 3.6 | | 2.7 | | 2.4 | 1 | 2.7 |
| PNC% | | 53.6 | | 55. | | 53.3 | | 52.7 | 65 | 55.9 |

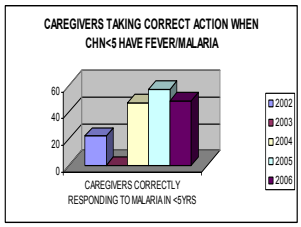
- Furthermore, a closer examination of performance according to program indicators and actual delivery of these critical interventions finds that during the last year, some gains have been made in particular programs, districts or regions. More discussion is included in the Appendices.[

The team was not able to do service statistics comparisons frm facilities as we were not able to obtain comparable figures for < 5yos or pediatrics.
Furthermore, two largely vertical programs which deliver child health interventions, Immunizations and Malaria Control, performed very well. Since Sept 2003, there has not been any reported cases of wild polio virus, nor has there been any reported deaths from measles.Measles cases have dropped from 34,671 in 1994 to 434 in 2005. Consistently high immunization coverage rates are illustrated in the figure below. The Malaria Control Program has made great gains in ITN distribution and rapid

treatment of fever in <5 yos.




But, both programs received significant direct funding, apart from the GoG. On another positive note, gains were made in two new strategies which have important potential for future advances in child survival – the expansion of a package of high impact, rapid delivery (HIRD based on the ACSD model: MCH interventions at community level in the Upper East Region, and community-based growth promotion (CBGP) in Volta Region. (World Bank pilot)

During the first year of this POW, the 2002 SPA revealed considerable gaps in the quality of care for sick children as noted below ; a more recent assessment of hospital care for sick children also found significant quality gaps.(GHS, 2005; MOH 2002) Fortunately, recent quality monitoring around ACT treatment has documented some rapid performance improvements with QA mentoring.

**Box 2**

| **Service Provision Assessment: 2002** | **Hospital Assessment 2005** |
|---|---|
| • For almost half observed children, all 3 major symptoms assessed but for only 5% were danger signs evaluated (consistent with BASICS Referral Pathway Study finding in 2003)<br>• Antibiotics prescribed too often, but antimalarials and ORS too little<br>• Preventive practices not done routinely | • Case management not up to standard, lack of protocols, incomplete assessment, treatment and monitoring<br>• Nutritional status not assessed<br>• No guidelines for feeding malnourished child; IMCI feeding guidelines not used<br>• Newborn resuscitation inadequate<br>• In adequate discharge and follow up |

Also, 2006 saw the full implementation of the NHIS, created as a pro-poor approach, to address more equitable access to care, especially for young children and pregnant women. We were not able to get figures to estimate % of registrants <5 since records did not capture such information. Nor could we assess progress in CHPS, since the 06 report was not ready, but certainly great strides were made in 05, so one anticipates increased participation and care encounters took place for children. In the future, under 5 encounters might be monitored to understand if the scheme is reaching this group

Other areas of progress with relevance to child health include the preparation of the IMCI curriculum for preservice training of nurses; diverse cadres of nurses and CHPs. The curriculum has been submitted for approval by the Nursing and Midwifery Council ; training will hopefully begin in the fall of 07 in 44 health training institutes. This type of activity is a big accomplishment, but its immense effect will only be felt in several years, and is not captured by the current performance indicators IMCI inservice trainings continues and got a boost from a bilaterally funded project.

In short, as the box below highlights, while the sector's CH performance in 06 did not make significant advances toward MDG4, nor did it lose ground, despite major constraints. Furthermore, 2006 may well have laid the foundation for a critical shift toward community-based delivery of CH interventions, which would put Ghana on track for 2015.

**Box 3**

**Highlights 06: Child Health Achievements**

EPI coverage remains high; no measles deaths, no polio wild virus

Malaria change to ACTs accomplished, ITN distribution and <5 treatment o fever within 24 hours

| |
|---|
| Nutrition achieved target in %<5 malnourished<br><br>CHPS expands and some nurses trained in IMCI<br><br>NHIS operational! |

- Action on 05 Recommendations

A review of past recommendations and Aides de Memoir makes clear that some of the findings and recommendations for 06 have been noted in previous annual reviews.. In particular, prominently mentioned in last year's review and again this year are the need to focus on neonatal interventions in order to attain MDG4, as well as recommendations to improve nutritional status "by balancing nutrition promotion and disease control in service delivery, targeting children at highest risk for under-nutrition, scaling up evidence-based low cost nutritional interventions, and reorienting nutrition programming towards community-based delivery" [Sector Review 05, p42] In terms of neonatal health, some advances were made - a new Reproductive Policy was developed, and prominently focuses on newborn care. Plans were recently approved to expand the successful nutrition CBGP model, and ENC training within the Imagine Ghana Free of Malnutrition.was also carried out.

As far back as 2002, recommendations were made to more actively include the private sector in health planning, and to develop an urban polity to better reach the poor. The need for evidence-based protocols and targeting services for the poor were mentioned in 03 , and the importance of better integration between public health and clinical care was stressed in 04. Also in 2004, the need to expand coverage of IMCI was noted, along with the recommendation for more attention to nutrition in both facility care and outreach Although activities have been undertaken through the years, these recommendations continue to have value and will appear again below.

- Coverage Gap in Key CS Interventions

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

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

**Box 4Current Coverage of Core Evidence-based CS Interventions**

| **Intervention** | **Current Coverage MICS 06 DHS 03*** | **Coverage Gap** |
|---|---|---|
| **Preventive Interventions** | | |
| Exclusive Breast feeding <6mo | 54% | 46% |
| Use of ITNs last night | 22% | 78% |
| Complementary Feeding | 58% | 42% |
| Zinc | 0 not available | 100% |
| Hib vaccine | 84% | 16% |

| | | |
|---|---|---|
| Vitamin A | *78% | 22% |
| Measles vaccine | 85% | |
| Newborn temperature maintenance<br>(Using proxy of delivered by skilled personnel) | NA<br><br>49% | NA<br><br>51% |
| IPT<br>(Using proxy of any antimalarial during last pregnancy) | *<1%<br>*58% | 99%<br>42% |
| **Curative Interventions** | | |
| ORT (any form) | *63 | 37% |
| Antibiotics for NB sepsis<br>(Using proxy of delivered in facility) | NA<br>49% | NA<br>51% |
| Antibiotics for pneumonia | 33%<br>(55% sought care) | 67% |
| Antimalarials | 61% (48% within24 hrs) | 39% |
| Zinc | 0 not yet available | 100% |
| Antibiotic for dysentery<br>(Using proxy for taken to health provider, excluding pharm/chemist, traditional) | NA<br><br>*26% | NA<br><br>74% |

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

### 4.2.3 Strategies and Recommendations to Meet MDG 4

Strategies to Reach MDG4

- Revise Child Health Policy (and related policies);Develop an Operational Guide for Scaling up

The Child Health Policy was written in 1999 and has not been updated. It thus preceded the focus on MDGs, and lacks new technical interventions in child health like zinc and low osm ORS, new vaccinations, and birth spacing. Updates in IMCI to include newborn and HIV are needed. Furthermore, it does not address new developments like CHPS compounds or take into account the NHIS. The Policy was developed before the analysis of burden of disease and evidence-based interventions or the importance of full coverage for mortality impact were delineated, nor does it deal with the rise of globally funded vertical programs. The policy does not include overarching guidance for delivering proven child health interventions through diverse programs and particularly, through community-based channels. Since our challenge is delivery, the lack of a clear Implementation Framework with expected coverage targets and performance indicators grounded in the core interventions is a serious impediment to scaling up. Furthermore, an abundance of implementation strategies exist, as shown below, emanating from diverse programs, but no roadmap to explain how they relate, build congruencies and synergies, avoid duplication and conflict, and assign clear responsibility for implementation at different levels in the delivery system.

**Box 5Multiple Child Health Strategies – no road map**

| | | |
|---|---|---|
| Essential Nutrition Actions<br>Community-based Growth Promotion | Anemia Control<br>IMCI<br>High Impact, Rapid Delivery<br>Reach Every District | Infant and Young Child Feeding<br>Rollback Malaria |

The Policy should address community-based delivery of child health interventions, including treatment of common conditions like malaria and ARI/pneumonia. It will need to provide guidance about working with local private practitioners and chemists or drug sellers, as well as traditional healers.*A first and fundamental step to reach MDG4 will thus be the production of a new national CH Policy and Implementation Guide for scaling up a package of core interventions throughout* the country.

- Implement Community-Based Delivery of Proven, Most Effective Interventions

Effective delivery at scale will require agreement on a compact package of proven interventions: ORS/zinc, exclusive breastfeeding, complementary feeding, use of insecticide-treated bednets, antibiotics for pneumonia, rapid treatment of fever within 24 hrs with an effective antimalarial, antibiotics for dysentery, Vitamin A supplementation and timely vaccination against preventable diseases, especially measles and Hib , as well as delivering them to as close to 100% of the target population as possible. Delivery of the aforementioned package could avert 60% U5 deaths. If one adds clean delivery, newborn temperature management, IPT of pregnant women, the package could avert 68% of U5 deaths. But the key is coverage - reaching all the catchment children. Priority child health interventions aimed at the main killers: pneumonia, diarrhea, malaria and malnutrition cannot be limited to facility based delivery. This is especially critical in Ghana, where as many as half of the needy population will not have access to GHS service sites. Hence, life-saving interventions like ORS and antibiotics must be delivered at community level, albeit with careful supportive supervision and continuous monitoring. However, in so doing, we should learn from prior experiences to avoid pitfalls, and apply sound judgment to apply new advances.

The current scope of practice in Ghana only allows certain cadres of nurses to prescribe medicines like antibiotics, nor does it recognize the role that private practitioners and drug sellers might play in reaching children with effective interventions.Hence, two critical priority actions will be needed: *agree nationally upon the core package of priority interventions for community-based delivery based on epidemiology/burden of disease, effectiveness in averting death and feasibility of delivery through community-based organizations*, including those outside the formal delivery system of GHS. Critically examine the packages already in use, such as HIRD and c-IMCI, and prioritize a core set of interventions. Studies have shown that adding more interventions to a package may actually limit the number of interventions delivered to the poor (Victoria, C et al, 2003)

*Introduce community case management/treatment of malaria and pneumonia in ~2 trial districts per region for one year, evalute, apply lessons learned and expand*, using those involved in the original districts to facilitate expansion to other districts in their region. It is possible that some organizations and volunteers will only be able to provide the preventive interventions; others may concentrate on the package of curative interventions, but at community level, the subdistrict leaders must make sure that every eligible household receives both preventive and curative coverage! The key differences from this approach and prior c-IMCI or even HIRD, is the decision to focus on a core set of fewer interventions, including key treatment interventions, and to assure systematic coveragee of eligible households at sub-district level.

- Decrease the Coverage Gap for CH Interventions: Measure and Use Results to Improve Coverage and Increase Local Govt Accountability

As discussed, coverage is an absolute necessity to have impact on mortality; *measurement of coverage for each intervention* should become a priority function at district and subdistrict levels. Learn from identification of targets and coverage monitoring taking place in EPI and Malaria programs; apply to other CH interventions in basic package. Examine existing community-based data collection systems being used in disease surveillance or HIRD, CBGP pilots – adapt a common format that can be used across diverse organizations and programs to collect accurate performance data. The district will need to capture both facility and community-based performance over time. Coverage surveys for the additional CH interventions, esp those related to nutrition, pneumonia and diarrhea should be piggy-backed onto annual program cluster surveys for malaria and EPI whenever possible.Quarterly or biannual targets should be monitored by alll stakeholders and reported on regularly to the DHMT, and from the DHMT to the RHMT. At least annually, a complete scorecard report on gains in coverage can be presented to the District Assembly and Regional Coordinating Committee. Interim reports and

discusssions on CH status/progress in terms of performance indicators should be held at least quarterly with local authorities and stakeholders.

- Strengthen Case Management of Childhood Conditions in Facilities

IMCI is a well tested clinical algorithm that addresses the common conditions that underlie childhood imorbidity and mortality. The MOH/GHS have adopted IMCI as the norm for caring for sick children. However, due to the length and expense of training it has not been rolled out. The Division of Institutional Care might recommend changing IMCI from adhoc to structured training, so that districts and regions assume accountability for their staff practicing according to this norm. *The MOH/GHS with UN and other implementing partners should develop and evaluate an alternative training approach*. In this context a review should be done to identify alternative training methods and on-the-job reinforcemento for IMCI which have been successfully implemented in other countries. Also important is the organized, systematic and timely follow up and mentoring after formal coursework. *Attention should be given to onsite and peer quality assurance activities, focusing on IMCI, so that those trained actually apply their learning.* The QA monitoring indicators for IMCI and child health in district hospitals can be adapted and introduced at health centers. Focus on improving the performance of the health center in caring for sick children (ie % of children presenting with diarrhea that received appropriate ORT), not simply individual provider performance. Finally, DHMTs and District Assemblies can be encouraged to prioritize facility IMCI training, as a critical part of reducing child mortality in their district.

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

Community-based delivery must focus on reaching the unreached; this means *identifying* and mapping the locations of communities with limited or no access tothe health center or outreach points. It means mor effective use of outreach, offering the priority package of interventions at every outreach session, and using community volunteers to bring the child/caretaker to the session or the CHN to the household. *Every subdistrict will have to identify the poor, underserved and at risk subcommunities or households with children under 5yrs and develop a concrete plan, with clear roles for community-based volunteers and partner organizations, to reach them.* The plan will be monitored and result shared at least twice a year with civil authorities, local leaders and DHMT.

- Focus on Delivering Newborn Interventions in Health Centers and Outreach

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

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

Lessons learned from the CBGP project can be used to expand to new districts and regions; *Essential Nutrition Actions (ENA) should be incorporated within the priority Child Survial intervention package* to be delivered at community level through diverse organizations. *A common BCC strategy for ENA should be developed, with consistent messages to be used across all community organizations*. *District indicators for tracking coverage and results of ENA should be incorporated in the CS scorecards*.

| **Focus, Invest and Triumph: Recommendations to Meet MDG 4** | **Illustrative Essential Package of Most Effective CS Interventions** |
|---|---|
| Multi-Sector Partnerships to Increase Child Survival in Ghana<br>1) Agree on smaller package of most effective and feasible interventions to deliver at at scale through community and household approaches<br>2) Use existing local stakeholders (not limited to health system); undertake microplanning and division of catchment to reach most vulnerable and assure coverage<br>3) Measure results – set coverage targets for all interventions and monitor, report progress at subdistrict, district and regional levels<br>4) Hold communities accountable for coverage by use of a Child Survival scorecard which indicates coverage per intervention and tracks changes annually.<br>5) Assess costs for expansion and sustaining coverage; advocate for child health and to build costs into local budgets | • ORT<br>• Exclusive and early onset Breastfeeding<br>• ITN use<br>• Complementary Feeding<br>• Antibiotics for Pneumonia<br>• Antimalarials<br>• Antibiotics for Dysentery<br>• Vitamin A supplementation<br>• Measles Vaccination; Hib Vaccination<br>**60% U5 deaths averted**<br>plus<br>• Clean delivery<br>• Newborn temperature management<br>• Intermittent preventive treatment for malaria in pregnancy |

**Box 6**

Short Term Recommendations

- Update Child Health Policy and develop Operational Framework
- Agree on priority package of interventions (subset of HIRD, C-IMCI) for delivery at community level, including treatment.
- Initiate community-based treatment of diarrhea, malaria (using ACTs) and pneumonia in selected districts (early initiator districts); monitor and evaluate
- Develop common nutrition communication strategy, with focus on ENA messages for <2 yos
- Agree on feasible components for essential newborn care, including resuscitation and postnatal care ; integrate appropriate ones into essential CS package for community-based delivery (focused HIRD). Incorporate within SM program and within IMCI.
- Develop strategy to improve newborn care; add newborn indicators to sector and hospital indicators. Start newborn mortality audit, linked to maternal audit.
- Develop district profile including CBO inventory and mapping, use information to develop district CH coverage plan/targets, including specific assignment of catchment areas and mobilization of community resources to assure coverage
- Adapt and implement WHO standards of care in district hospitals for case management of severe childhood infections. Encourage hospitals to calculate pediatric admissions, OPD visits and causes of death, separate from adults. Incorporate pediatric quality of care indicators into QA monitoring at district hospitals.

Medium Term Recommendations

- Make IMCI the norm for care of sick children in all health facilities; assure that at least 2 providers are trained at all health centers. Work with district civil society to gain financial support for IMCI. Develop and evaluate alternative , less costly and time-consuming training methods.
- Integrate quality assurance within IMCI curriculum and foster health center accountability for quality
- Increase CHPS zones and assure the implementation of essential package of CS interventions at community level (focused HIRD) and IMCI
- Introduce pediatric emergency triage, assessment and treatment, adapted appropriately for each level of the delivery system
- Implement the new guidelines for bidirectional referral from community through district hospital levels; use technology to assist providers in less accessible sites.
- Introduce pre-service training in IMCI, Essential newborn care

- Design and implement Quality "recognition"/accreditation of facilities, providers
- Undertake costing exercises for child health interventions, and advocate for inclusion in local budgets

### 4.3. MDG-5 Analysis in Context of POW

**Box 7**

| **Maternal Health Sector-wide Indicators and MDG Goals** |
|---|
| Maternal Mortality Ratio<br>• Population based<br>• Institutional |
| Institutional Maternal Mortality Rate |

### 4.3.1 Sector Performance Indicators in Maternal Health: Targets and: Trends

The Millennium Development Goal (MDG) 5 seeks to improve maternal health and reduce by three quarters, between 1990 and 2015, the maternal mortality ratio (MMR, number of maternal deaths per 100,000 live births). The MMR should not be confused with the maternal mortality rate (MMRate, the number of maternal deaths in women of reproductive age group, usually expressed per 1000 women). The ratio is designed to express *obstetric* risk, while the rate is an indicator of the risk of maternal death among women of reproductive age (Stanton, Abderrahim and Hill 1997). The proportion of births attended by skilled health personnel is the second indicator for MDG 5. The assessment provided here focuses on maternal survival and also provides a brief review of the related preventive strategy of family planning.

Investments in reducing maternal mortality have downstream effects on child survival, most closely for the neonate but also for the infant, so attention to MDG 5 will not only result in improvements in women's survival but also in infant and childhood mortality.

Population based maternal mortality ratio

Maternal health status in the sector wide indicators is measured at national level by the population based maternal mortality ratio (proportion of maternal deaths per 100 000 live births), correctly defined in the GHS performance guidelines (GHS 2006). This indicator is congruent to the needs for demonstrating Ghana's progress in saving women's lives.

There is considerable information available on population based levels of maternal mortality in Ghana. For maternal mortality, the sector wide indicators rely on data available from one single population based survey, the 1992 National Maternal Mortality Survey, which provides information on the level of maternal mortality in the 10 years preceding the study, relevant to a period around 1982, as shown in Appendix 4.3 -1 Several other more recent studies of good quality are available which provide data on maternal mortality in Ghana, also listed in Appendix 4.3-1 but these are either not national estimates, or are modelled global estimates. The three modelled estimates provided in the Annex all use different methodologies and cannot give any indication of trends over time. Most of these studies suggest that maternal mortality is higher than the level used in the sector wide indicators. Given this situation, Ghana currently cannot record any trends toward achieving MDG 5 and an assessment of performance on the basis of health outcome is not possible.

Institutional maternal mortality ratio (IMMR)

In districts and regions, institutional maternal mortality is routinely used in performance reports. This is to be commended as important information can be provided through the use of these indicators. Interpretation of this indicator is however complex. Firstly, the indicator is not necessarily a good indicator of performance. It may, for example, increase if clinical care within a facility is poor (an undesirable situation), but the increase could also occur if activities in the district has resulted in improved utilisation of services when complications arise (a desirable situation), even when no change in quality of care have occurred. Secondly, improving efforts to collect data on maternal mortality can

in itself lead to increased reported levels from ascertainment bias. Finally, maternal mortality in facilities is often underreported. Studies in Ghana have shown that as much as a quarter of maternal deaths can be missed in routine maternal mortality reporting from institutions (Bell et al 2006). Trend analysis of IMMR in isolation can thus be falsely demotivating when the IMMR is seen to be increasing, or may provide an illusion of improved performance when the rate is decreasing.

The importance of showing change in maternal mortality cannot be overemphasised, to generate interest globally for Ghana's achievements through demonstration of progress toward MDG5, and to mobilise continuing and additional commitment and resources for maternity care in Ghana. Given the inherent difficulties and costs involved in measuring maternal mortality, our recommendations on how to feasibly demonstrate change in maternal mortality indicators are as follows:

- Obtain a national maternal mortality estimate every 5 years. The opportunities to do this without significant new investment are imminent, as follows:
    - The planned national maternal mortality and abortion care survey for 2007 for which funding (from private sources) is already thought to be available. In itself, this initiative appears to be an expensive way of spending precious resources. Obvious linkages with the DHS 2008 exist with opportunities for pooling funds, although it is not clear whether the routes of funding from the private source allow this. This is an area of immediate concern where strong and co-ordinated country leadership will help to maximise resource use.
    - The planned demographic and health surveys (DHS) conducted every five years in Ghana, the next one being planned for 2008. The previous four DHS surveys have not included maternal mortality estimates, which have been lost opportunities, as it is a relatively inexpensive addition to the survey (Stanton, Abderrahim and Hill 1997).
    - The planned census for 2010 where a small number of questions can be added in order to obtain a maternal mortality estimate.
    - The crucial need in limiting costs by using the above opportunities lies within the careful co-ordination and advance planning of all the studies, especially in terms of the methods to obtain maternal mortality estimates. If different approaches (for example, the original sisterhood method or sibling history in the DHS direct method, or Census) are used to collect the data on maternal mortality, there are ways of ensuring the MMR figures obtained can be used to look at trends. To do so will require careful technical considerations on confidence intervals and ensuring the modular questions on death allow biases between difference studies to be accounted for. The need to provide good trend data is essential, making comparability between the studies a highly important matter. The formation of a small technical group tasked to plan and examine the methods proposed in each study for maternal mortality measurement is advised.
- Another option is to utilise the demographic surveillance sites in Kintampo and Navrongo (and more recently Dodowa) to measure trends in maternal mortality. The disadvantage of this approach is that national levels will not be obtainable.
- A third option is that there are new efforts at global level to improve modelling of data using as much existing country specific information as possible. Retrospective estimates for maternal mortality to 1990 are being recalculated to obtain a baseline that can then be compared with subsequent estimates. This is an advance from the existing global estimates from WHO/UNICEF/UNFPA modelled estimates which cannot be compared with each other for trend assessment. Modelled estimates however do not always have the same degree of acceptance within countries as survey based estimates.
- In between the 5 year surveys, use institutional maternal mortality ratios to monitor trends, but given the difficulties in interpretation of this indicator, it will be necessary to link these figures with qualitative data from maternal audits to explain the direction of the trends and to identify bottlenecks using maternal death audits and confidential enquiries into maternal deaths (WHO 2004, Lewis 2004). Further explanation of the use of confidential enquiries is available later in this report.

Other health outcome indicators
Stillbirth and neonatal death rates are being reported within the routine health information system, but not included as sector wide indicators. It is recommended that these indicators should be included as priority indicators in the sector wide reports as the data is already available and they provide information on quality of care for both mother and child. At district, regional and programme level, it would also be useful to disaggregate stillbirth data into fresh and macerated stillbirths, as the fresh stillbirth rate provides more direct evidence on the quality of intrapartum care.

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

**Box 8 Trends in maternity service output indicators**

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

*Figures from the MOH Annual Performance Review of Technical Programmes, 19/20th March 2007

Recommendations for Maternal Sector-wide Indicators for 2007-2011 can be found in Appendix 4.3(2)

Family planning
The proportion of family planning acceptors is the current indicator included in the sector report. Although the contraceptive prevalence rate and the unmet need for family planning are more widely accepted as key family planning performance indicators, these cannot be collected in routine information systems. However, data is available for Ghana from DHS surveys. The performance of family planning shows a slow upward trend in both sector and DHS indicators. Family planning acceptors increased from 21% to 26.8%. While knowledge levels of contraception are high in Ghana at 98%, contraceptive prevalence rates (25%) is low but increasing from 13% in 1988 (GSS et al 2004) and unmet need high (34%) (Quansah Asare 2007). As in the maternal service provision indicators, disparities within the population are large (see Appendix 4.3-3).

### 4.3.2 Situational Analysis: Maternal Health

Situation analysis of maternity-related services
The data provided above suggests the following situation:

- Antenatal coverage is high and data quality in the sector wide indicators is acceptable. The slight downward trend is possibly explained by improvements in monitoring, but should be watched and compared with the next DHS 2008 survey.

- The post natal care indicator is a proxy for accessibility of services for both mother and child in the puerperium. Levels of post natal care are not very high and no clearly discernable pattern of increase can be noted. The DHS data suggests that the routine systems overestimate levels of postnatal care.
- The percentage of deliveries with skilled attendants is showing a slight increase. Performance in this area is thus encouraging. However, the quality of the data being collected within the routine health information system requires improvement as there is a discrepancy between the DHS data and the routine data. Investigation of this indicator was made in some depth as deliveries with skilled health personnel is one of the two MDG indicators. The change from use of the indicator "supervised deliveries" (which included health professionals and traditional birth attendants) to skilled attendants (health professionals only) has probably contributed to some confusion in calculating this indicator. There are two areas requiring attention.

  Firstly, as noted in the previous year's performance review report, an examination of district reports revealed that the differentiation between the two terms "supervised" and "skilled" deliveries is not clear. The performance guidelines (GHS 2006) define the indicator correctly, but the term "supervised deliveries" is still used. Secondly, in one region, we found that the indicator was calculated in four out of seven district reports we saw, using the denominator of supervised instead of expected rates, leading to cases of reporting of "100% supervised deliveries", which has the potential of inflating the proportion of deliveries with skilled health personnel. A review of the 2006 performance report presentations from other regions did not show evidence for this being a widespread problem in other regions, although the level of detail available in the presentations is not sufficient to come to a conclusion. (Performance reports were not available at the time of this review, only the presentations).
    - Patterns in the percentage of maternal deaths audited are erratic. Knowledge that there is a requirement (but not a legal requirement) to report all facility maternal deaths appears widespread. The quality of the audits can be indirectly ascertained by the quality of analyses provide in the narratives of reports. Audits are used mainly to identify the causes of maternal deaths, which are already well known. Although identifying causes of death is a good practice, maternal death audits can be used to provide much more information, such as to explain trends in the institutional maternal mortality ratio, and thus to identify and explain what is going wrong, and where, in the health system. This is explained further under the recommendations for this section.

Overall, the performance at service output level shows small, but encouraging trends. Data quality is acceptable for some, but not all, indicators. District and regional variations are well reported in the RCH annual reports, which identify the less well performing regions clearly. Apart from these regional differences, attention should be drawn to the data available from DHS studies in Ghana (see Appendix 4.3-3) which show large disparities when data is disaggregated by wealth, rural urban residence and education, signifying that any strategy to improve maternal health must address these social issues.

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

- Trends over time on maternal health outcomes are not available for Ghana
- Subnational trends in maternal mortality ratios across different poverty groups and across different regions cannot be assessed (the data available from the different regions are not comparable)
- Institutional maternal mortality ratios are available, but trends need careful interpretation
- Deliveries with health personnel are rising slowly. 31% of deliveries are still with TBAs and 53.4% of deliveries are taking place at home (GSS et al 2004).

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

Clinical quality in health facilities

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

- Several studies on quality of care in Ghana show deficiencies in quality of care such as in the use of partographs, monitoring of post partum vital signs, resuscitation procedures etc (Hussein et al 2004, Deganus & Ansong-Tornui 2007, Ansong-Tornui 2007). These studies looked at both health centre and hospital level care.
- The availability of essential equipment for complications/resuscitation is not optimal. 83% of all health facilities in country provided delivery care services, yet only 16 % had all items needed to support quality delivery services (GSS et al 2003). None of the health centers surveyed had all the items for normal delivery and only 37% had the needed items to support quality delivery care in terms of availability of partograph, 24 hour service provider and protocols. Regional visits during this review revealed that health personnel were consistent in reporting that equipment needs were one of the most pressing, for example, Ambu bags (including newborn size), equipment for abortion care, vacuum extractors and blood transfusions were not available, and staff improvise to carry out key clinical interventions.
- 96% of hospitals provide blood transfusion, but 29% of hospitals offer transfusion with no blood storage facilities, which might contribute to delays in readily obtaining large volumes of blood for crises situations in post partum haemorrhage especially (GSS et al 2003).
- While 85% of health centres in the country provide 24 hour delivery services (often by only one midwife), only 21% of health centres surveyed had emergency transport services available to transport maternity emergencies (GSS et al 2003). In the majority of cases the client and her family had to arrange their own transport when emergencies occurred.

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

**Box 9DHS data showing trends in place of delivery**

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

CHPS role in maternal health services

The CHPS initiative is currently being put into place in Ghana. The programme aims to relocate primary care from health centres to the community. CHPS is also seen as having the potential to provide supervised delivery care in the community. Childhood interventions are discussed elsewhere in this chapter, but the discussion here is confined to the issue of reducing maternal mortality.

There is debate about whether CHPS is being operationalised as an outreach service provision in the community, or as a downscaled health centre. In either of these forms, or as some hybrid of the two, there is a role for CHPS to provide maternity and maternity- related care in four key areas: extending antenatal services to those hardest to reach, reducing the prevalence of anaemia in pregnant women, promoting utilisation of health services ; providing postpartum care, including family family/birth spacing and postnatal care for the newborn (especially for those delivered at home)

Although the primary care interventions listed above will have some effect on maternal mortality, it is important to have clarity on what is less feasible and effective within the CHPS initiative. Even if the community health officers (CHOs) involved in the CHPS programme are trained to supervise or conduct deliveries in the community, the likelihood of this intervention having an appreciable effect on maternal mortality
reduction is small. The reasons are as follows. Firstly, the midwifery training for the CHOs will necessarily be limited as they are multipurpose health workers. The training is unlikely to prepare a CHO to a sufficient level of competency for delivery care. Secondly, even if a midwife travels to the CHPS compounds, it is unlikely that her intermittent presence will allow her to participate or supervise a majority of deliveries in the area. Thirdly, even if a midwife is resident near or in a CHPS compound, the life- saving emergency interventions that can be provided on site will be limited.

The concept that women can be identified to be "at risk" of complications is not useful as most pregnancy complications are unpredictable (Rooney 1992). Although improved referral will help in cases of emergencies, in CHPS compounds which are located very far from a hospital, the time required for referral is likely to be longer than the time for referral from a health centre to a hospital. Fourthly, as described earlier, existing health facilities are not fully functional for even the most basic obstetric care, so it is unlikely that an outreach CHPS clinic can be successfully upgraded to perform the necessary functions for effective intrapartum care except perhaps in the very long term. Finally, CHPS is designed to address the needs of the hardest to reach. The data provided in Appendix 4.3-3 show that disparities are smaller for preventive services such as antenatal care and family planning (which can be provided by CHPS sites).However, for intrapartum and emergency care, inequities of access are highest, and CHPS is not designed to provide these forms of care, and so will not narrow the disparities for these essential services. In the very long term, the CHPS programme may have the potential to contribute to a community reporting system for maternal deaths.

TBAs

Traditional birth attendant (TBA) training and supervision continue to be part of safe motherhood activities being carried out at service level. TBAs are not a homogenous group – some provide only delivery services, others traditional healing, spiritual or religious needs, some are trained and others not. TBAs practice independently or can be linked to such organisations as prayer camps. Anecdotal information suggests that the use of prayer camps and spiritual healers to seek delivery care is widespread, despite the charging of payments in kind or cash, often of a value equivalent to health services (50,000-100,000 cedis). Prayer camps are seen to contribute to delays in referral for complications. Amongst health practitioners the review team spoke to at district, regional and national level, there is a perceived need to understand better how these TBAs function, and why they continue to attract women to seek maternity care with them.

Other areas related to maternal mortality reduction

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

- Data is not readily available on abortion and post abortion care services, despite the legal acceptance of abortion provision in Ghana for specified reasons. As the data is not available, it is not possible to assess performance in this area, although there is a possibility of a survey on abortion related care issues planned for 2007. The same situation is true of other reproductive health services such as treatment of sexually transmitted diseases and screening of gynaecological cancers. Some non governmental organisations (such as RMMM or reducing maternal mortality and morbidity programme technical partners) are working on improving family planning and safe abortion services.
- Vitamin A supplementation is part of the nutritional programme in Ghana, but is mainly targeting childhood mortality. The use of Vitamin A is however also believed to have an effect on maternal mortality reduction. A study is currently being completed in Kintampo to assess the effects of supplementation in Ghana. When the results of this study are out, it will be important to use the findings to update policy in this area.

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

### 4.3.3. Strategies and Recommendations to Meet MDG 5

Strategic approaches to achieve MDG 5

*"The reality that districts face is that they do not have enough capacity to do what has been defined in the national policy and therefore have to make choices within the institutional arrangements"*
Birungi et al 2006 pp26

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

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

The recommendations on how to measure trends in maternal mortality using existing opportunities to limit resource needs has already been described in the previous section, 4.3.1

Make the health centre the anchor institution for normal deliveries

Making the health centre the key institution for providing intrapartum care for normal deliveries is likely to involve medium to longer term investment. Based on current available global evidence, as presented in the Lancet maternal survival series in 2006 (Campbell & Graham 2006), Ghana is in a position to make this a practical and feasible reality, because of its existing health infrastructure and systems.

Operationalising a health centre intrapartum care strategy will utilise existing facilities and policies, building on them to address the social and behavioural aspects. Many women find health facilities unfriendly and of poor acceptability, and instead seek care with traditional, spiritual and religious providers. The concept of improved "woman-friendly" health services is not new (UNICEF 1999) and practical guides are available to operationalise the concept (UNICEF 1999, ICH 2001). This concept can be used in Ghana to overcome barriers to increasing utilisation of health centres. It involves improving the biomedical and social quality of existing health centres through building up their services in such a way as to address medical and non-medical needs together. During a round table discussion on maternal mortality reduction held as part of this review (Appendix 4.3-4), it was suggested that the term "Jubilee" health centre be used to describe these women friendly sites – the term "Jubilee" denoting ideas of freedom and happiness, and related to the recent 50$^{th}$ anniversary celebrations of independence in Ghana. The components of a Jubilee health centre are:

- Ensuring that the health centre becomes fully functional in terms of providing basic preventive, intrapartum and referral services. These are already clearly outlined in the national reproductive health policy (GHS 2003). How to achieve this improvement in functionality is a systems wide issue, congruent with enabling preventive, basic and referral level services for all health programmes. It does, however, involve a need for commitment from all

development partners to prioritise maternity services, especially to seek sufficient investment for supplies and equipment in the short term, and sufficient human resources in the longer term, especially if utilisation levels of the health centres show the need for this.

- The innovative part of this concept is in the bringing together of religious, spiritual, behavioural, psychological needs of women during pregnancy and childbirth, to make these "services" available either at the health centre (i.e. the same site), or in association with it (as a formal recognised partnership between respected TBAs, well utilised prayer camps which provide delivery services etc). Part of this concept will be to ensure better normal birthing practices which allow women to mobilise during labour and delivery in their position of choice and limit unnecessary interventions (BBI 2007). Although the idea and policy directive to initiate this can be scaled up nationally, it is in the nature of these social interventions that solutions will be specific to local sites. The "how" of this part of the strategy will therefore involve:
    - Clear policy guidance to proceed at national level
    - Assigning civil society organisations (such as trade and faith based organisations, local non governmental organisations, district assemblies) a clear mandate to become equal partners with health facilities to facilitate this change. It is likely that health providers are not the most well placed to initiate the necessary partnerships which will enable the health centres to provide for the social and spiritual needs of women, while civil society including NGOs, local government and other community groups are more likely to create an enabling environment for these activities.
    - The discussions among civil society to effect this change at the local level needs to be led by key influencers in the community, at the level of the DDHS or the head of the district assembly. Pushing the agenda forward at this level will give the concept more prominence and priority.
    - A change in mindset of health providers may be necessary. Health providers have conventionally been in the role of "supervising" and "training" traditional providers. If health workers are not perceived as being sympathetic, approaches to non health providers of delivery services can be perceived as being accusatory, resulting in alienation of traditional practitioners. In learning to work with other types of health providers, there is a need for increasing understanding and acceptance of a framework of care other than the biomedical ones. This may indeed be the most important and challenging foundation for success in this area of work.

It is acknowledged that this shift to actively increase utilisation of health centres is not an easy solution, or a quick fix. Nor is it necessarily risk free. The strength and capability of civil society organisations is not assured, although working through established civil society organisations (trade and faith based, reputable NGOs) might provide a greater chance of success. Changes in mindset and attitudes of health providers are not simple to effect. However, the other perspective is to push supply (the improved facilities) and demand will follow. Jubilee health centres will give direction and a common purpose to disparate groups of NGOs and community organisations. Doubts about the feasibility of establishing these Jubilee health centres can be alleviated by not scaling up immediately, although successes have been reported in many other countries such as Bangladesh, India and Zambia. By the very nature of these community mobilisation activities, solutions for each locality may be different. Although prayer camps and TBAs are examples encountered during the review, there may be other types of stakeholders in different localities. Model sites could be established to demonstrate successes and learn from experience. In fact, a few DDHS were met in this review who had already made inroads into implementing this idea. They could be identified and used as catalysts for this concept, and their successes provided as demonstration models.

Improve quality of care in hospitals

The final part of the strategy involves the improvement of quality in hospitals. This is linked to the "Jubilee" health centre concept, in that hospitals will be made more efficient by moving normal deliveries out of hospitals towards the health centre, thus freeing up the hospital facilities and resources to concentrate on treatment of complications in the mother, resuscitation of the newborn and

on more specialised areas such as provision of quality abortion and post abortion services, and other reproductive health needs. Equipment requires investment, and the focus should be on equipment needs for complications in abortion, delivery and care of the newborn. Blood transfusions are a crucial lifesaving intervention and immediate access to adequate supplies is required. This may mean that blood storage facilities be made available in all hospitals. Continuing maternal death audits will create the means through which clinical quality bottlenecks can be identified internally within each hospitals. The GHS plans to set up a system of confidential enquiries into maternal deaths (CEMD). The utility of CEMD to act as a tool for measurement, as well as to effect changes and improvements in maternal mortality reduction is widely accepted (WHO 2004, Lewis 2004). In addition, recent improvements to CEMD have been tested in Ghana which show that CEMDs which highlight deficiencies as well as strengths are received well (Hussein 2007, Ansong-Tornui 2007). The CEMD should be an external and high level initiative which will be key to strengthening the impetus for clinical quality improvement by complementing the existing maternal death audits and giving visibility to the needs for improving quality in health facilities in Ghana.

General recommendations on MDG 5

Underlying the details of the approach described above, a number of more general recommendations are put forward which will provide an enabling environment for reaching MDG 5:

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

### 4.4. Nutrition Analysis in Context of MDG 4 and POW

**Box 10**

**Nutrition Sector-wide Performance Indicator**

- **Under5 malnourished**

**Also contributes to MDG 4**

#### 4.4.1. Sector Performance Indicators in Nutrition: Targets and: Trends

One cannot address MDG 4 without taking into account nutritional status of newborns, infants and <5 children. In fact, nutrition is equally important for maternal health, but due to time constraints, will not be addressed in this report; it is however, one of the areas the team recommends for more analysis. Nonetheless, all major causes of infant and childhood deaths in developing countries are associated with malnutrition, and it is commonly agreed that malnutrition is an underlying factor contributing to over half of infant and childhood mortality . The percentage of of U5 children who are malnourished is a critical sector-wide performance indicator addressing Improved Health Status.

**Box 11<5 Nutrition Trends**

| GDHS-Year of Assessment | Underweight | Stunting | Wasting |
|---|---|---|---|
| 1988 | 31 | 30 | 8 |
| 1993 | 28 | 26 | 12 |
| 1998 | 25 | 26 | 10 |
| 2003 | 22 | 30 | 7 |

GHS DHS

National data on malnutrition derived from the Ghana Demographic and Health Surveys showed a reduction of underweight from 31% in 1988 to 25% in 1998. However, the most recent DHS data on the nutritional status of children 0-35 months of age in Ghana indicated that 22.1% were underweight, 29.9% stunted, and 7.1%e wasted; in essence showing improvement in underweight and wasting, but an increase in stunting similar to levels in 1988. The children most at risk for malnutrition are those between 6 and 36 months of age. **(**Source: Ghana Demographic and Health Survey, 2003_)

Stunting increases sharply from 3% among children below 6 months of age to 37% among children 36-47 months. The level of wasting increases from 3% among children less than 6 months of age to 20% among children 12-23 months of age. Low weight for age (underweight) is thus more common among children more than 6 months old. As with other indicators, prevalence of these nutritional disorders varies by region, with the highest prevalence of underweight and stunting (38% and 40% respectively) found in the northern half of the country, compared to 12% and 11% in Greater Accra Region.

In general 30% of children in rural areas and 14% in urban areas had stunted growth (GDHS). However, wide variations also exist within urban areas. While the GDHS indicates that the stunting level in Greater Accra is 11%, a nutrition survey carried out by the Greater Accra Region, Ghana Health Service Directorate indicated that stunting levels ranging from 43%-58% were observed in the poor submetropolitan districts in the region. Perhaps surprisingly, the highest stunting level,58% was observed in one of the submetro areas of the Accra metropolis. These findings indicate that even in urban areas, there are pockets of high risk, which may be masked in aggregate regional or even urban data (Source: Ghana Health Service Directorate, Greater-Accra Region. November/December Nutritional Status Survey 2005)

The nutritional target of the 2002-2006 POW of the MOH was to reduce the % of underweight children under five years of age from 25% to less than 20%. At the time of the last DHS survey, 22% of the U5s were underweight, so at that time, achieving the 2006 target seemed realistic. Furthermore, the draft 2006 MICS report indicates apparent further progress, with only 18% of the U5 yos classified as underweight. Hence, this is the one sector-wide indicator in child health that has attained its target in 2006.

The team recommends that this indicator be retained in the next POW as a sector wide child health indicator because it provides an early indication of declining nutritional status in children, is easy to measure, used widely and widely understood. The team notes that the most reliable data on underweight status is from the Demographic and Health Surveys, and even though the GHS reports on underweight from child welfare clinics, cautions that such institutional data be analyzed carefully, for it may be inadequate due to the reasons described below:

- Facility data is based on attendance at Child Welfare Clinics operated by GHS health facilities, and hence, only captures children attending these clinics (in fact, missing the majority of children under fives, including those attending private sector clinics);
- Child Welfare Clinic attendance drops dramatically from 95% for children 0-11 months to 50% for children 12-24 months and 15% for children 24-59 months, thus missing those

children precisely at risk for undernutrition. **(**Source: MOH Technical Review meeting 2006: Child Health)

- The large number of children attending the WC clinic sessions prevents much individualized attention or counseling of caregivers;
- Some CW clinics suffer from shortages of weighing scales or functional scales, thus prohibiting the weighing of all children - which contributes to the unreliability of their data ;
- The limited technical capacity of some health staff to analyse and interprete data from the weighing sessions, in part due to inconsistency and inaccuracy in completing growth charts.

### 4.4.2 Situational Analysis

The sector wide indicator focuses on underweight, which has shown impressive improvement during the last 5 years. But there have been other gains as well. Most significantly, as discussed in Section 4.2, two of the most effective nutritional interventions to decrease mortality are exclusive breastfeeding and complementary feeding; these 2 interventions alone, have the possibility of averting almost 20 % of <5 deaths. They are 2 of the only interventions delivered through general programs to achieve more than 50% coverage. During the 2003 DHS, 53% of infants under 6 months of age were exclusively breastfed, a slight increase from the 1998 DHS. However, complementary feeding began early, with overt one third of infants less than 2 months in age receiving supplementary foods or liquids other than water, thus exposing them to unnecessary risk of bacterial contamination. The draft 06 MICS results support that EBF has remained stable (55%), without significant decline or increase,and that supplemental feeding begins early. There does not appear to be much regional variation in EBF, and differences based on maternal educational level, urban-rural residence or wealth seem to be lessening. The percentage of bottle feeding has declined markedly over the last years. The treatment for severe malnutrition was not addressed in this report.

Another nutritional success story involves micronutrient supplementation; linking Vitamin A supplementation to the delivery of EPI services and especially, campaigns has contributed to nearly 80% coverage. Some gains have also been made in promoting the household use of iodized salt. However, although not focused upon in this report, iron deficiency continues to be a major threat to the wellbeing of children in Ghana.. The 2003 DHS reported that over ¾ of the children 6-59 months suffered from some level of anemia, with 47% of them being moderately anemic. Given the endemicity of malaria in Ghana, the GHS has wisely incorporated preventive measures to reduce malaria as part of anemia reduction efforts. The Supplemental Feeding Program and Community-based Growth Promotion program both documented significant nutritional improvements in their catchment populations. See Appendix 4.4 (2) for specific results

Several nutritional strategies have been developed in Ghana including: Imagine Ghana Free of Malnutrition; the Integrated Strategy for the Control of Anemia; Essential Nutrition Actions and Community-based Growth Promotion and Monitoring. Essential Nutrition Actions includes infant and young child feeding and has been incorporated within IMCI and C-IMCI, and thus included in the training of CHPS nurses. The Nutrition Unit has also provided training to non-health sector workers, such as agricultural extension workers. Furthermore, the MOH/GHS have expanded the cadre of service providers with nutrition capability, training technical officers in disease control *and* nutrition. These types of advancements are not always captured by the single nutritional sector-wide indicator.

### 4.4.3. Nutritional Strategies and Recommendations to Meet MDG 4

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

- Improve cross-sector coordination and collaboration among stakeholders: apply a “nutrtional lens” Improved nutrition is the outcome of many factors and is affected by policies/strategies and activities of numerous sectors including health, water and sanitation, education, agriculture, and finance. However, as there is no formal institutional arrangement to discuss

and commit to achieve good nutrition, the coordination and collaboration of these actors has been less than optimal. Through a "nutrtional lens"- review the potential impact of proposed investments; define optimal nutritional inputs from each sector and; identify potential opportunities to integrate nutrition initiatives across multiple sectors.

- Go horizontal to improve coverage of essential nutrition actions (ENA) : Essential Nutrition Actions (ENA)-cover breastfeeding, complementary feeding, maternal nutrition, nutrition in illness, vitamin A supplementation, iron and folate supplementation, use of iodized salt, and use of insecticide treated bednets. This constellation of evidence-based interventions will be included in the HIRD approach. Community-based workers in other sectors (agriculture, water and sanitation, education) could also be purveyers of ENA to families.
- Undertake community-level nutrition inventories of all agencies and NGOs involved in nutritional activities. Standardize guidelines and messages to ensure effective delivery.
- Improve targeting of nutrition programmes: while it is well known that undernutrition occurs mostly during pregnancy and during the first two years of life, many programs continue to address broader constituencies, thus diluting impact. Focus on the high risk infants and young children under2-3 years of age

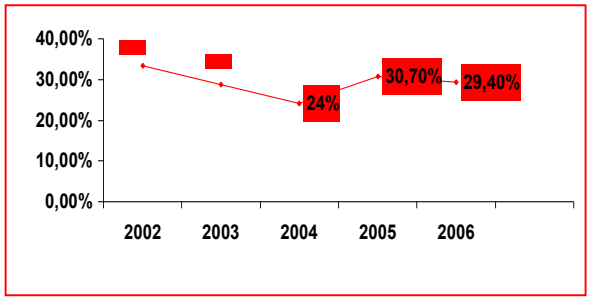
More detailed recommendations can be found in Appendix 4.4(4).

## 4.5. Other Priority Programs

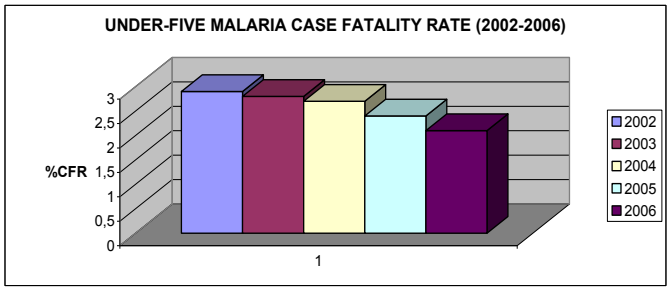
### 4.5.1 Malaria

In 2006, malaria was responsible for 19% of all deaths across all age groups, an increase of 4% over 2005, but reportedly down from 32% in 2003; it is difficult to know what underlies these changing figures, care-seeking behavior, clinical care or data collection issues. What is clear are significant regional differences. The highest proportion of malaria deaths have consistently been in three regions: Northern Region ( 46%), Western Region (28%) and Upper East Region (29%) – in the other regions the rate has oscillated around 10%. This mortality distribution conforms to the geographical distribution of higher malaria incidence in the country.

**Figure 2**




Of all malaria deaths, 34% occurred in children <5, and 9% in pregnant women. The malaria <5 Case Fatality Rate (CFR) nationwide has decreased from 2.8% in 2002 to 2.1% in 2006. However, the proportion of under-5 deaths due to malaria has varied throughout these years. The malaria national CFR is decreasing, but also differs between regions. It was highest in Volta (4.8%), Northern (3.6%) and Upper West (3.7%) regions, and lowest (<1%) in the Central Region and Greater Accra. In Volta, Brong Ahafo and Upper West the CFR in malaria is increasing (see Appendix 4.5.1-1 ).



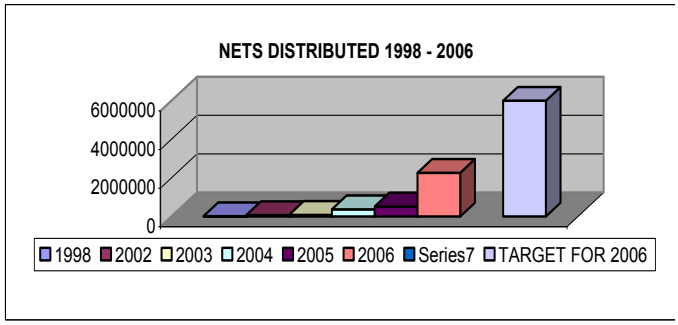

Malaria has a serious impact during pregnancy, on both the mother and fetus. Of all admissions of pregnant women , almost 10% are because of malaria – *increasing* from 8,1% in '05 to 13,7% in '06. If this is attributable to an increased infection load, better notification or women being more aware of the danger is not certain, and could be the subject of a study. Of all pregnant women in 2006, 570.000 (61,1%) received intermittent preventive treatment for malaria (IPT), more than twice the number on IPT in 2005. About half of them (or 29% of all pregnant women) were receiving IPT through the Directly Observed Treatment (DOT) method.

The toll of malaria in terms of workload loss continues to increase. This is reflected in the increasing number of malaria cases diagnosed by the GHS, rising from 3,0 Mio in 2001, to about 3,5 Mio in 2003, and holding roughly even in 2006, with 3,4 Mio cases. These cases represented about 44% of all OPD visits each year, down slightly to 38,5% in '06.. That means there were approximately 170 malaria episodes per 1000 people, who wer treated by 7.800 providers (about 450 episodes treated per provider). A little over half of these encounters were treated with ACTs, though again, there was significant variation between the regions (ranging from 25%-91%). Of all episodes treated with ACTs, 93% showed correct response to therapy.

**The main strategies** of the national malaria program are: (i) improved case management in facilities, (ii) improved case detection at home, (iii) prevention through the use of insecticide impregnated bed-nets and preventive treatment for the vulnerable, and (iv) introduction of a new drug treatment regimen. Indeed, a new Malaria Drug Policy (prioritising Artesunate-Amodiaquine (WHO) was developed and is now being implemented nationally.To strengthen its performance, the Malaria Control Program places special emphasis on monitoring, research (a nationwide Evaluation Survey**)** and developing partnerships.

**Impregnated bed nets**:

**Figure 3**




The 2006 target for families sleeping under bed-nets has not been met, but that may be because the target was too ambitious. However, over the last year, the proportion sleeping under ITNs has increased from 48,3% in '05 to 51,1% in '06. The rate differs greatly between the regions: from 34.8% in Eastern to 68% in N-East and N-West. Of all pregnant women, from 25% (Northern) to 70% (Central, Ashanti) slept under ITNs. For Some of this variation may be due to diverse distribution schemes. For example, in the rural parts of Northern Region, UNICEF supports the subsidized distribution of ITNs to children under five and pregnant women..However,in health facilities in some urban areas, pregnant women and children normally pay c20, 000 , though there is a waiver for indigents, and recently a voucher scheme was established for pregnant women attending ANC clinic, and for mothers who bring their children for immunization. Community volunteers participate in bed-net re-treatment centres throughout the country:

During the review team's field visit, it was chagrined to see one hospital that was not using ITNs in its wards, not even in those wards where the most vulnerable, children and pregnant women stayed

**Spraying**

In a pilot project (the Obuasi Malaria Control Program, financed by the private sector – Anglo Gold Ashanti – a mix of preventive interventions was introduced on a small scale, but with results that are interesting enough to discuss scaling-up. The mix consisted of indoor residual spraying of households, larvicide of breeding areas (freestanding water), distribution of ITNs, malaria surveillance, early case treatment, and IEC. These combined interventions t reportedly led to an average decline of 4000 cases per month in this relatively small area. Proponents of spraying maintain that it leads to decreased infectious loads. Less controversial is the recognition that spraying, by itself, will not lead to eradication, given the biological parameters of transmission (the parasite has a very high Basic Metabolic Rate of around 97%), but also because mosquitoes don't recognize country borders, and frequently make neighborly visits!

### 4.5.2. HIV/AIDS

Sero-prevalence in Ghana is slowly increasing, currently hovering around 3%; in 2006, seroprevalence decreased to 2,9% (narrowly missing the target of 2,6%). The cumulative number of AIDS cases for the period 1986 – 2005 has been estimated to be 104,505. Of course, changes in sero-prevalence are related to the number of people that have been tested.

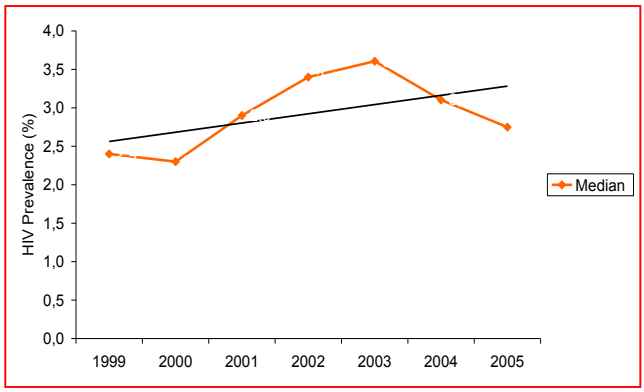



**Figure 4**

**Voluntary counseling and testing** is rapidly growing. People completing the process tripled from 45 thousand in'05 to 145 thousand in '06, of which 8,000 tested positive (compared to 3.800 in '05). More than 36,000 pregnant women were tested in '06 (in contrast to 20,000 in '05), with 2,7% found to be positive (3,7% in '05). Almost all found to be positive were started on ART (93%), an increase n 15% over 2005. The prevalence of sero-positives at ANC sentinel-sites was close to the rate found in the 2005 population-based study . The number of districts providing PMTCT services also increased rapidly, from 1 district in '02 to 82 in '05 and 131 in '06. In total, the country runs 341 PMTCT centres, [increaing from 2 in 2002]. The number of service providers trained is also increasing: 241 in '05 and 351 in '06 – amongst the trainees: 61 private midwives and 124 Peer Educators from the Ghana Armed Forces. At the same time, 670 providers of STI services were trained in '06 (compared with 281 in '05,) Also, 104 associations of PLWA are funded through this effort..

**Treatment.** A total of 46 hospitals now have the capacity to provide AntiRetroviral Therapy (ART), compared to 5 in '05 and 402 health workers were trained in ART. The number of patients under clinical care (which represents probably less than 1% of the HIV positives) grew from 745 adults in '03 to 6 thousand adults (and 300 children) in '06. –53% are on ART, a significant increase from 25% in '03. Of all the 6,993 persons persons found to be seropositive, 95,3% are still alive, while 0,9% have been lost to follow-up.

Sero-prevalence may be a good indicator, but it is heavily influenced by human behaviour. Useful additional indicators would be HIV detection rate (which says more about the performance of the sector) or the ratio of HIV+ individual to people living with AIDS.

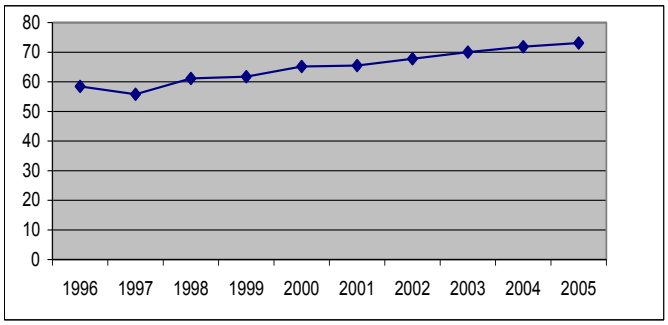
**An intersectoral approach** should be guaranteed by the supra-ministerial AIDS Commission, chaired by the Vice President. However, the role of the Commission appears to be more focused on attracting new funding, monitoring and evaluation, and exchange of information, rather than developing intersectoral plans or programs. Hence, each ministry develops its own sector-specific activities, thus defeating the purpose of the Committee. Being an inter-sectoral problem, HIV/AIDS needs interventions developed between sectors. Fortunately, there are a few good examples, like the growing number of PLWA- associations; or the interface between workplace and the MOH. The MOH stands ready to assist to the companies linked to the Ghana Business Coalition on AIDS.

Forty sentinel centres ensure the follow-up of sero-prevalence trends. In most of the districts, HIV/AIDS services are now available: counseling, testing, and therapy; and in some districts, more than one service centre exists. Outside these centres, however, few activities are undertaken, or services offered.

The 2007 program seems to be quite ambitious, aiming at more than doubling the number of people completing testing and counseling, as well as achieving a six-fold increase in the total number of

pregnant women tested. It also aims to quadruple the number of providers trained in 07 (as compared with the number trained in 06).and increase the numbers on ART sixfold. Actually, the program's budget does not pose a problem – but from '08 onwards, financing might become more difficult, as the need for treatment increases steadily. But in reality, if the program performs well, the Global Fund will likely finance the gap of +/- 300 Million USD.. Logistically, the major problem facing the programseems to be the procurement of ART drugs.

### 4.5.3 Tuberculosis




The sector-wide indicator for Tuberculosis is the TB cure rate. This rate has continually improved from below 60% in '96 to 72.3% in '06. This increase may seem slow, but it is steady – and may well be attributable to the DOTS strategy, but also to the fact that the activities of the program (NTP) are integrated in the sector-wide approach: improvements are sustainable, and the program invests in the health system.

**Figure 5**

Situational Analysis

Although the Cure Rate (a good indicator for sector performance) is doing well, the Detection Rate is not. The nominal number of detected cases is increasing, from less than 110.000 before 2000 to 12.500 in 2006. Unfortunately and significantly, the ratio of detected cases to expected cases dropped to 35% in '06.

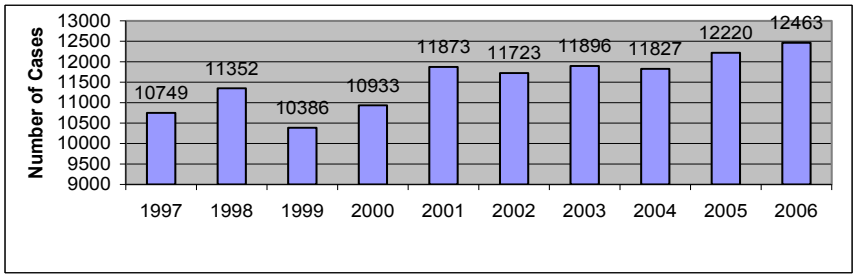



**Figure 6**

The Notification Rate has been vacillating around 60/ 100.000 population for several years, after increasing from , 62/100,000 in '97 to exactly 57/ 100. 000 in '04, '05, '06. Only in Greater Accra (105) and the Western Region (125) has the notification increased; in all other areas, it has gone down since '97. According to WHO estimates, the Detection Rate should be 281/100,000 in Ghana.The question is thus posed, is there a denominator problem – in other words, is the estimation of the expected number of cases in the country correct? A population based study is being contemplated to better identify the expected number of cases.

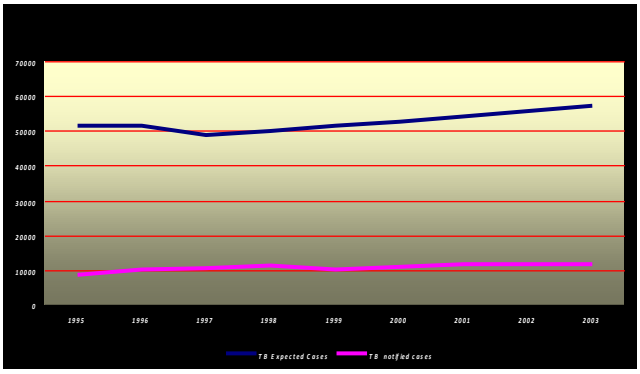



**Figure 7**

In 2001, in collaboration with major stakeholders , the Tuberculosis Control Strategic Plan for Ghana was developed. Four key strategies were put forward: improved TB case detection; case management and control; forging partnerships to expand DOTS; and focused research. This Strategic Plan has provided the framework for implementing TB control within the context of the 2002-2006 POW.

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

Besides the previously mentioned "denominator" problem, the low detection rate has been attributed to the limited coverage of existing public health infrastructure. The NTP evaluation will take place at the district level, where there are few diagnostic tests, the supervision is limited and drugs continue to expire on the shelves..

**Table 3**

| | **Resource Situation by year in US$** | | |
|---|---|---|---|
| | **2004** | **2005** | **2006** |
| Total financial resource requirement of programme | 5,540,111 | 4,441,180 | 5,315,715 |
| Financial resources available to programme | 1,467,416 | 1,335,165 | 1,845,715 |
| Resource deficit | 4,072,995 | 3,106,015 | 3,470,000 |
| % resource requirement made available | 26.5 | 30.1 | 34.7 |

**Source: Adapted from NTP annual report for 2005 (to Annex)**

The strategy of improved case detection requires acceleration in the provision of more diagnostic labs .Functional equipment and adequate supplies in every district, as well as training of lab staff deployed to these new labs will be critical. Regions showing poor case detection, such as the Northern and Brong Ahafo should be given extra support

An impressive number of staff have been trained by NTP: 60 pharmacists, 300 Community Health Nurses, and 1,593 health staff in Greater Accra and Kumasi.
Although the cure rate has increased steadily to an acceptable level, the NTP estimates that the available human capacity is insufficient, both in numbers and in skills to implement DOTS. Community and city DOTS. The actual strategy should tackle low detection rate through the use of community volunteers, who might not only support DOTs, but also help to detect new cases. The other 'new' strategy is TB-detection in Prisons.

### 4.5.4 Other Diseases of the Poor

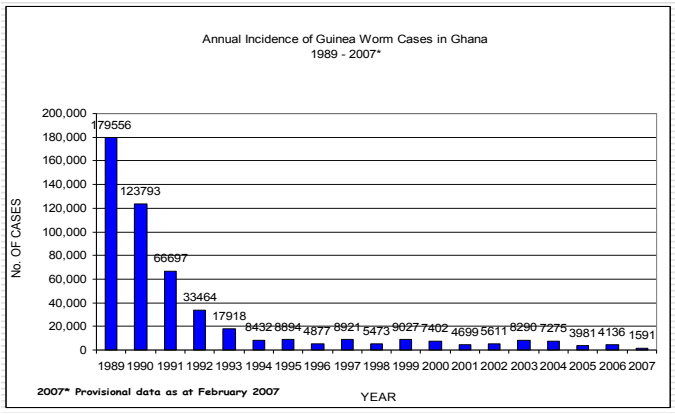
During this review, 'forgotten diseases of the poor' could not be given attention, due to the focus on MDG's 4 and 5. Nonetheless, it is important to keep the momentum for vigorous disease control in this area. The team is confident in MOH/GHS's technical capacity and drive to do so. One disease, however, merits attention: Guinea Worm. The box below describes the impressive progress made in this area, as well as the challenge to complete interrupt transmission by the end of 2007. High political commitment and support, as well as providing adequate water supply for populations living in those well-known 'pockets' where transmission is still ongoing, are mandatory.

**Box 12**

Guinea Worm Eradication in Ghana

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

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




Through the community based surveillance system, the 'spots' of great concern are well known. Although there are still major challenges to ultimately reach the commendable target of breaking the transmission chain, this disease control programme has already proven its efficacy and can be seen as one of the best practices of intersectoral collaboration and propoer disease control management by all actors involved, at all levels of the health system.
Nonetheless, there is justified concern about the fact that over the last years, incidence has not really come to a standstill yet. This means that intersectoral strategies that have already been develeloped and deployed must be pursues vigorously, and political support at the highest level is needed. Providing appropriate water supply in the well-known pockets where this diabling disease is still prevalent is one of the measures where GOG, in collaboration with the actors involved, and in collaboration with the communities, still has to make progress.

### 4.5.5 Conclusion

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

The chapter also included a situational analysis for each component, maternal, child and nutrition. Findings from the child health analysis indicated that Ghana was currently not on track to meet either MDG 4 or 5 goals, and that significant commitment to new strategies will be needed, along with leadership, political will and investment. In particular, to meet the MDG 4 mortality reduction, neonatal mortality must be reduced; and community-based delivery of proven (evidence-based) child health interventions for the most common causes of mortality must be scaled up to achieve full coverage. Essential nutrition preventive actions must be included in this package of high impact interventions. The engagement of community organizations, outside of the formal health system will be critical. An illustrative package of 15 preventive and curative interventions was presented, along with an analysis of the current coverage gap for each intervention. Seven implementation strategies were discussed, and both short and medium term recommendations made to get Ghana "back on track" to achieve MDG 4.Such changes are deemed possible, given progress made during the last decade in malaria and EPI programs, each providing strong community platforms which can be used or learned from, to deliver other priority interventions.

Ghana's performance in progress toward MDG 5 was deemed visible, but slow. To reduce maternal mortality by three quarters by 2015, strategies and recommendations to accelerate progress were made including:

- Invest in measurement of trends in maternal mortality in Ghana.
- Promote institutional deliveries in health centres for normal deliveries by making them more acceptable to women, ensuring basic obstetric services are provided and by improving health centre to hospital referral
- Improve clinical quality of care in hospitals.
- Staffing of maternal health facilities will need to be reviewed in the medium term, in accordance with shifts in utilisation patterns resulting from the strategies proposed above and other key changes to the system such as health insurance.
- Target the poorest and most disadvantaged sectors of society to provide better access to services, especially for intrapartum and emergency delivery services, as inequities are greatest in these areas
- Provide leadership at the highest policy and technical levels to enable government and development partners to "speak with one voice" for maternal mortality

In summary, the chapter focused on technical performance and discussed technical interventions and services which will need to be effectively delivered to pregnant women and children under 5years, if reductions in U5 mortality and in the maternal mortality ratio will be met in line with the MDG 4&5. Explicit in achieving coverage, is the need to expand and scale up delivery to reach every individual in need of service. In order to do so, health systems must be in place. Thus, the findings of the following chapter are directly relevant to the recommendations in Chapter 4, and will ultimately determine whether or not MDGs are achieved.

## 5. HEALTH SYSTEMS CAPACITY DEVELOPMENT

### 5.1. Introduction.

'Achieving MDGs' and 'scaling-up' was one of the key areas for this review. As was also pointed out in Ghana's poverty reduction strategies, the overall aim is to reduce poverty by half by 2015. Three of the MDGs are directly related to health and health services. Making progress on these MDGs, with the deployment of pro-poor strategies is not only mandatory because of the strong relation between poverty and health status. in the health of the poor is also one of the most cost-effective investments in a country's economy. Ghana subscribed to this policy: it needs a healthy population for economic growth.

In the previous chapters, the importance of health promotion and creating an health environment were discussed, and progress in scaling-up interventions to specifically address MDGs 4, 5 and 6 has been looked at, from a programmatic point of view.

This chapter is looking at achieving MDGs 'on the ground'. How do specific interventions and programmes 'fit' into the overall health system? To what extent are the basic health services responsive to needs of the poor, and to what extent are other than economic factors – socio-cultural; political – being dealt with in to enhance this responsiveness? And, are geographical pockets of poverty well known and considered in planning coverage of basic health services.

All health sectors are an interrelated set of processes, services and capacities, which should ideally create favourable conditions for the population's health and wellbeing. Within the health sector, one recognizes two core components - direct service delivery and enabling environment factors. The system elements for direct (curative, preventive and promotional) services are the health workforce, physical infrastructure, and support systems including drug supply management, supply chain management, and transport (management). Policies, management and planning instruments provide the enabling factors that allow evidence based decision-making, good governance, effective financing partnerships, stewardship and regulation.

Of the three levels of by which the health sector is organized, the sector's most direct operational level is represented by **the district** and this is results that should lead to attaining the MDG take place. Tertiary facilities have a relatively small effect on mortality indicators. A well organized district, enabled and able to take these responsibilities is then a basic condition to foster the sector's expected results. The district level is the interface between the health sector and **the community** and this is where creating healthy behaviours (see Chapter ….), and enabling inter-sectoral collaboration foster a healthy environment (e.g. nutrition, water and sanitation). Community participation fostered at this level assists in deciding priorities and making services more responsive to the needs of the population. The district level is where cost-effective interventions (see also Chapter ….)that affect child- and maternal mortality are provided. Making districts functional means developing them as a functional unit, the activities at primary care level (health centres, community units) and the secondary level (the district hospital).

To ensure that services fit the needs, appropriate skills mix of **human resources for health** (HRH) are needed. Ghana, unfortunately has high rates of HRH migration to higher income countries though this situation now appears to be stabilizing. Interventions to improve HRH retention and productivity should include performance based management and of quality of incentives from both professional *and* user's perspectives.

We approach the review of the health systems with this background in mind. During the review, specific attention was given to HRH and HMIS, and to a lesser extent to equipment and transport issues. In the subsequent chapter, other components of the enabling environment – governance, financing arrangements – are dealt with.

## 5.2. Routine indicators on the utilisation of services.

OPD attendance rates.

The set of sector-wide indicators includes indicators on the use of outpatient services (OPD) sion rates, and efficiency indicators, such as bed occupance rates (BOR). Overall OPD attendance (in Health Centres, District- and Regional hospitals), has not changed dramatically during POW 2002-2006, and oscillates just above 0.5 (new cases per capita). Compared to neighbouring countries like Mali and Burkina, this is relatively high, but attendance rates in other African countries (e.g. Southern African countries) show much higher rates (between 1,0 and 1,5).

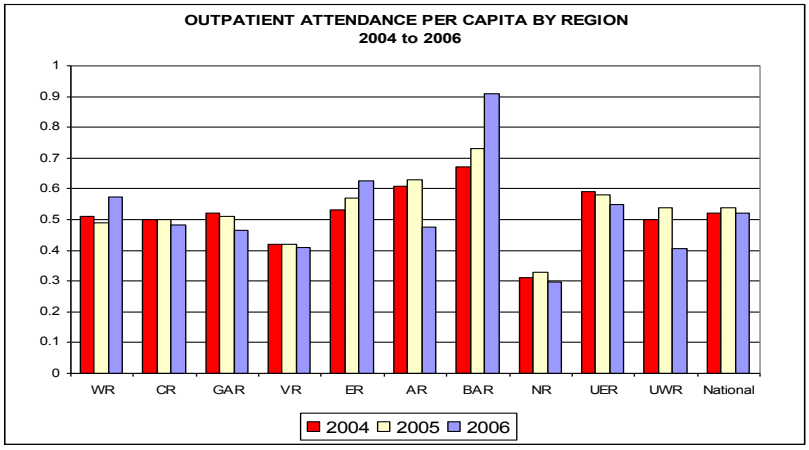


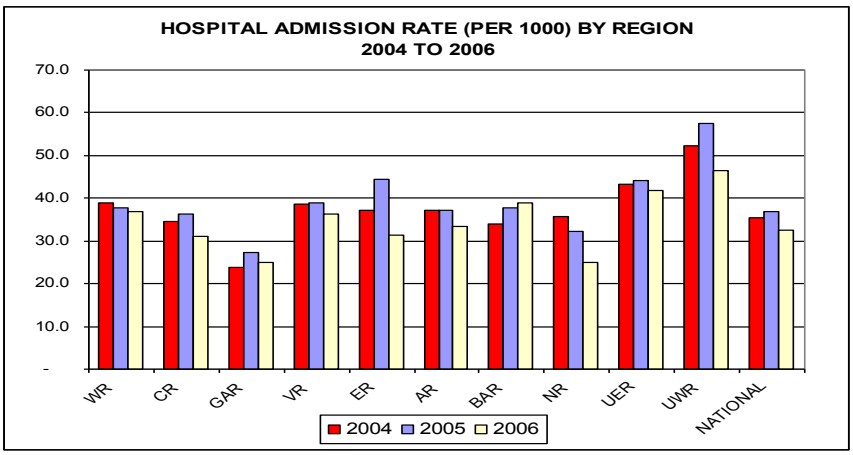

**Figure 8**

While the overall national rates have not changed much over time, this is not the case in some districts and regions. Some regions show an upward trend (like BAR, Eastern, Western Regions), some remain the same (Central, Volta, Northern Regions), while others show a negative trend (like Greater Accra, Ashanti, and Upper West). Then there are again important differences between districts.

It should be noted that OPD rates from Teaching Hospitals are not included in the data. Further, some districts have included data from NGO providers (CHAG; for-profit providers), while others have not. This makes interpretation of this sector-wide indicator somewhat spurious. In any case, OPD attendance remains low, and it is necessary to monitor future trends. One would expect that the introduction and expansion of the NHIS will lead to an increase of service uptake. During the team's field visits, anecdotal evidence was obtained for an increase in OPD attendance in several health facilities. These observations cannot be generalised at this point. During the review, no consolidated data became available from the RHAs; therefore, inter-district variation – important management information at the regional level – cannot be presented here.

Admission rates; BOR.

**Figure 9**



The admission has decreased at national level in real terms from 800.000 in '05 to 730.000. Only in BAR the per capita admission increased steadily, in Western and Volta Regions it decreased only slightly – in the remainder of the regions it decreased. In the same way the overall bed occupancy rate (BOR) decreased by 7% to 47%; only in Greater Accra it increased – but in the three northern regions it decreased sharply (12-20%).

**Table 4**

**BED STATE UTILIZATION 2006**

| Region | Occupancy Rate | Average Length of Stay | Bed Turnover Rate |
|---|---|---|---|
| Western | 47.5 | 4.1 | 41.9 |
| Central | 50.4 | 5.6 | 33.1 |
| Greater Accra | 57.6 | 4.2 | 49.6 |
| Volta | 44.3 | 5.5 | 29.3 |
| Eastern | 50.7 | 5.3 | 34.7 |
| Ashanti | 41.6 | 3.5 | 42.9 |
| Brong Ahafo | 55.1 | 4.1 | 49.4 |
| Northern | 45.9 | 2.9 | 57.7 |
| Upper East | 40.2 | 3.0 | 49.1 |
| Upper West | 40.9 | 3.5 | 42.8 |
| **National** | **47.5** | **4.3** | **40.5** |

This while the national average length of stay remained the same (4.3 days) and the bed turn-over decreased by 10%, the total number of beds remained the same. Important to note that the situation in Korle Bu and Komfo Anokye teaching hospitals is similar: number of admissions and bed occupancy rates are decreasing here, too.
This all may probably be explained by the rather low OPD attendance rates.

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

To address these pending issues in institutional/hospital care, MOH has developed a *hospital strategy* in 2003. An important number of recommendations are provided (levels of care; type of services by level; etc.), but the follow-up strategy has not yet been put in place nation-wide. A Quality Assurance policy has been developed, including the related guidelines – only a few Q/A training sessions have been provided. Furthermore a strategy for private hospitals has been developed, but is not yet put in practice.
The development of a national master-plan for infrastructure in the hospital sector is on-going. A service availability survey has also been carried out, but the results are not yet available. A hospital design model is not yet finalised as the criteria have not. An inventory of land ownership of the existing hospitals has not yet been carried out. A document describing the roles and responsibilities has not yet seen the light. A survey on equipment has been carried out and has resulted in establishing the requirements and a plan for requirements – but the development of procurement policies plan (including guidelines and a monitoring plan) is still being developed. A survey to assess the human resources in the hospital sector has been carried out, but the development of norms and standards still give a lot of confusion. Management training for hospital managers is seen as an urgent need, but a program has not yet been developed.
What appears to is needed is a strategic plan for the hospital sector, with a clear road map as it seems that the different interventions that do take place need coordination. Once the strategy plan has been carried out, each hospital should make a business plan.

**5.3. On expanding coverage of Basic Health Services.**

Physical infrastructure

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

During the field visits, when visiting several districts and sub-districts, the team noted that *mapping coverage* of all (public; private) facilities, and identifying coverage gaps, is not always done. Information on catchment areas and catchment populations by facility, distances, location of settlements, etc., is not always available. Given the need to expand coverage, and the potential of basic health services to contribute to achieving MDGs, more emphasis could be given to these mapping exercises. Active involvement of the community is needed, to determine the organisation of community based health care structures at the sub-district level. Obviously, best practices exist, such as in UER, where the CHPS strategy was developed. These experiences can be used to enhance these processes elsewhere. Although the overall coverage of basic health services in urban areas is more favorable, as compared to rural areas, there exist (poverty) pockets of low coverage as well. The review team considers CHPS as a crucial extension of coverage of health services within the sub-district and commends the GHS for its comprehensive and well-documented CHPS strategy (GHS. Policy Document. No 20. May 2005). Mapping exercises can help to decide on best sites for future CHPS facilities: the nearest-by health centre should not be too distant (15 – 20 km as a maximum) nor too near (> 4 km).

A major challenge is to further roll-out the CHPS and to find the required resources to enable that. Crucial resources include: staffing (Community Health Officers), simple means of transport (bicycles / motorcycles), and simple equipment. GHS has made an extensive needs assessment in terms of staffing and equipment, in collaboration with WHO. POW 2007-2011 should include clear budgetary targets to ensure the roll-out of this system. The review team believes that much more progress can be made in achieving MDGs, by further scaping-up the CHPS coverage (see also the previous chapter). At the same time, it is recommended to include on the national research agenda a comprehensive assessment of the performance and implementation strategies of the current system on the ground.

Referral system.

GHS strategies and legislation on the NHIS provide for a gate-keeper system that encourages efficient and appropriate use of services. Normally, patients would use the health centre (or CHPS structures within the sub-districts) at the entry point for all cure and care. It appears, however, that practice is different: patients enter the health system for primary and secondary care at any level including the (expensive) tertiary level. The NHIS may become an important financial instrument to enhance efficient use of all levels of care. It is therefore important to monitor trends in care seeking behaviour and in referral patterns. Apart from financial incentives to normalise referral patterns and use of facilities, managers at district and regional levels could also consider other activities to strengthen linkages between levels of care at the district level (joint – district, sub-district - maternal death audits, not merely addressing causes of death, but also the processes having led to it; setting operational protocols / procedures for referral; etc.).

The new (GHS Feb ’06) referral policy and guidelines describes the types of referral, guidelines for the conduct of the staff, and organizational and legal issues. This policy could be complemented with further enhanced with descriptions of the precise type of service each level of care should deliver, and

inclusion of the "patient's perspective" factors such as financial mechanisms when referred - e.g. mechanisms at community level to support the referred patient to reduce "first delay" in referral..

## 5.4. Quality of Care and quality nassurance.

Quality of care in Ghana must be viewed from both the professional and the patient's perspective.

The **professional perspective**
To ensure the basic standard of care, accreditation is required for all health facilities. Most GHS and private sector (FP/ NFP) facilities have received only temporary accreditation and annual re-accreditation does not take place. A key question remains as to who should monitor accreditation, which is now apparently left to over-burdened district health teams. Inspections from the MOH HQ or NHIS may be more a appropriate alternative as these institutions have an interest in the quality of services and are not directly linked to the provider facilities.

To ensure **quality care**, standards, guidelines and protocols have been developed for some programs (e.g. Reproductive and child health, accident and emergencies, Malaria, HIV/AIDS, Tuberculosis and Buruli Ulcer) with others are still in the process of being developed. The GHS acknowledges problems with compliance with the guides and standards despite investments into numerous training workshops and there is obviously a need to increase workplace supervision, monitoring and evaluation of their use. Standard operational protocols and procedures derived from national standards must be developed for use at facility level and must also be closely monitored to guarantee basic standards of care.

More than half of district hospitals have **quality *assurance*** teams (BAR, Western and Ashanti Regions lag in this respect). However, the Q/A system are not truly functional these hospitals did not even carry out regular client satisfaction surveys.

**The patient's perception of Q/C**
Increasingly, improved **patients** satisfaction with care received in health facilities is being demonstrated. The Core Welfare Indicators Questionnaire Monitoring Survey (CWIQ 2) in 2003 found that only about a fifth (21.7%) of respondents were dissatisfied with public hospitals and clinics, 18.8% with mission hospitals, 17% with private hospitals and 27% with community health centres. This represents an improvement from the 1997 CWIQ survey which had found dissatisfaction rates of 51.1% for public facilities and 53.7% for community health centres. Twenty percent of persons were dissatisfied with treatment they had received from GHS facilities. An interesting result was that 63% found the GHS too expensive compared with 37% for private clinics and 22% for missionary hospitals.

An important issue of quality improvement is to enhance the socio-cultural acceptability of services. For example labour and deliveries are treated carried out along modern western methods which may not correspond with cultural norms. Further action research may help to adapt services to locally acceptable practices.

### 5.5 Human Resources, Leadership and Management.

Human resources development for the sector has began to respond to the crises that was noted in various aide memoirs since 2002. The core elements of this crisis were about staff retention (including the effects of brain drain), distribution and supply constraints and the need to activate various incentive levers to address these issues. Strategy papers and plans have been developed and HR stakeholder forums held to build consensus on possible strategies. However, the implementation of these plans have been less coherent and focused possibly because of ongoing constraints of resource availability, entrenched institutional arrangements and interests of various professional groups. Despite the hiccups, valiant efforts have been made with a significant increase in intake into all professions training schools and at least for nurses, the data shows significant reduction in intention to emigrate. Appointments into public sector leadership positions are formalized with 4 year duty terms though actual performance based contracts have not yet been implemented. Translation of a clear

management and leadership development strategy into gaining greater sector performance is still not firmed in the perceptions of persons interviewed. Salaries have improved compared to 5 years ago and this, along with other factors may have negatively influenced service delivery performance due to reduced resource availability.

From the review, the critical/key issues emerging include:

- The large workforce expansion needs to be fine tuned to better serve the health needs with better analysis of costs-effectiveness estimation of various cadres being trained and an assessment of the appropriate skill mixes needed.
- The quality of graduates of expanded training programs must be carefully monitored. High intakes will mean pressure on training infrastructure, learning resources including practical training sites. There is need to determine the cadre mix best suited to the peculiar health needs of Ghana (for example, tackling MDG 4,5) and what change is anticipated the skills profile of the workforce.
- Decentralizing HR management including payroll control is a desirable objective. This is major task that requires careful planning to anticipate any possible negative implications. It will be extremely important to establish the skills and systems needed at regional levels in order to make this work well. It has the potential of containing payroll inflation if managed well.
- The massive improvement in pay of health workers was important in stabilizing health professionals retention. The challenge now is to refashion incentives systems to encourage staff redistribution and improve productivity of the workforce.
- Effective management and leadership of the sector is essential at all levels to elicit staff motivation and performance and improved services. Accountability of managers for service results has been initiated in some regions and this needs to become a national exercise involving all agencies and BMCs.

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

In POW 2002-2006, priority HR interventions included:

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

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

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

### 5.5.1. Human Resources for Health in 2006

5.5.1.1. Achievements.

What did we plan to do? The overall policy aim for 2006 is stated as follows in POW-2006:

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

The planned results for the 2006 POW were as follows:

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

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

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

Performance management development is an often stated objective but what exists are appraisals forms that are requested and filled only for the administrative purpose of completing promotion procedures. Appraisal systems are thus poorly established and it will be difficult to establish objective performance linked reward systems. It is also unlikely, given the huge administrative capacity needed to regularly appraise 40,000 odd staff, that a good staff performance management systems will be in place in the near or medium term. However, staff performance can be enhanced to meet sector objectives with more feasible program of appraisals aimed at BMC managers, a smaller and more manageable set of staff (e.g. DDHS, Med. Supts.). This can form part of a system incorporating management performance contracts and accountability of management for sector results..

- **"Improvement in staff distribution"**

There are large increases of intakes into health worker training schools which should positively affect future availability and possibly, distribution of staff (within the ability of personnel emoluments to absorb new staff[2]). But the evidence of better staff distribution is not clear as *staff to population ratio trends for the most deprived regions though showing some general improvement is variable (see tables below) and cannot be directly linked to redistribution efforts.*. It must be recognized that re-distribution will be a difficult and slow process that will require a longer horizon for assessing progress. However a very clear distribution strategy must be established along with effective policy of incentives to target specific deprived locations and job types critical to attaining key MDGs[e.g. midwives or OBGYNS, Paediatricians].

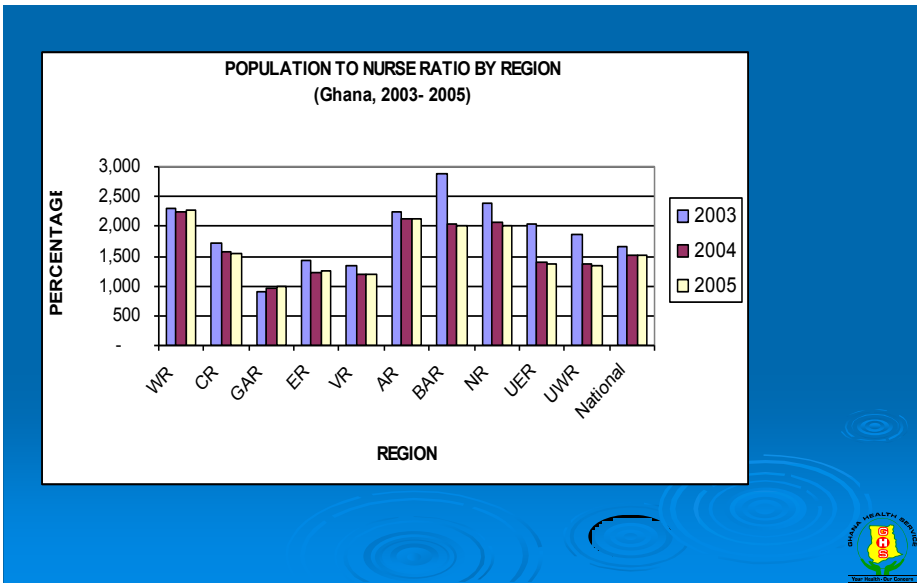
The new HR strategy 2007-2011 makes admirable projections for HR supply. But these projections do not reflect what proportion of anticipated increases are aimed at the deprived regions of northern Ghana. (*Ghana can learn from South Africa's policy of providing "Rural" and "Scarce Skills" allowances*.).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

**Table 5** Nurses Distribution Data

[2] There is said to be an informal freeze on employment, increments, and overall pay envelope

| REGION | POPULATION RATIO (2003) | POPULATION RATIO (2004) | BY POPULATION RATIO (2005) |
|---|---|---|---|
| Ashanti | | | 1:2579 |
| Brong Ahafo | | | 1:3007 |
| Eastern | | | 1:1707 |
| Central[3] | 1:2900 | 1:1695 | 1:1729 |
| Greater Accra | | | 1:727 |
| Northern | 1:4070 | 1:2941 | 1:2684 |
| Upper East | 1:3169 | 1:1408 | 1:2092 |
| Upper West | 1:3159 | 1:1786 | 1:1458 |
| Volta | | | 1:1620 |
| Western | | | 1:2199 |
| National avg | 1:2598 | 1:1513 | 1:1500 |

**Figure 10**Population to nurses ratio; 2003-2006




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

It is not clear if specific training programs started in 2006 but 21 new courses over 5 years and a clear increase in intake has been sustained. Concerning the "*high quality*" nature of the training programmes, there is little evidence available and what is available anecdotally is negative.
Training programmes have very high student intakes and clarity is needed on the strategy for a matching development of tutors. Targets and projections of tutor needs and student tutor ratios are not readily available as part of the strategy.
The Nurses and Midwives Council has reported of incidents reflecting on the quality of recent nurse graduates[4]. Referral rates at final nursing examinations are high (41% average for RGNs, 59% for SRNs!). Suspected reasons include a lack of tutors, inadequate field practice sites and lack of practical supervisors[5]. To meet accreditation needs of schools, it appears fresh degree nurses graduates are

[3] 2003, 2004 data from "THE HEALTH OF THE NATION: Reflections on the First Five Year Health Sector Programme of Work. 1997- 2001 August 2001
[4] The NMC cited instances of employment of unqualified persons and graduates who lacked basic skills
[5] Practical training sites are overloaded. KBTH for example received students on specialist rotations from several public and private schools.

hired as tutors[6]. Emphasis needs to be paid to developing and monitoring of training quality with indicators such as tutor to student ratios; average class sizes; number of students per accredited clinical sites. High failure rates incur a major cost to the sector and to the individual professionals and puts even more pressure on schools with already high student populations to handle retakes. Some of the constraints concerned the selection process into training schools which needs to adhere strictly with laid down criteria and procedures.

**Table 6**Nursing Licensing examination results - 2006

| NSG DISC. | NO. OF CAND. | NO. OF PASSES | NO. REFE'D | %OF PASS | % REFE'D | NO. ABSENT |
|---|---|---|---|---|---|---|
| PHN | 52 | 29 | 22 | 55.8 | 42.3 | 1 |
| CCN | 16 | 9 | 7 | 56.3 | 43.7 | - |
| PON | 23 | 16 | 6 | 69.6 | 26.1 | 1 |
| OPHTH | 29 | 23 | 6 | 79.31 | 20.69 | - |
| ENT | 14 | 12 | 2 | 85.7 | 14.3 | - |
| DM | 17 | 11 | 6 | 64.7 | 35.3 | - |
| RMN | 61 | 32 | 29 | 52.5 | 47.5 | - |
| RGN | 1,117 | 658 | 459 | 58.9 | 41.1 | 4 |
| CHN | 586 | 377 | 206 | 64.2 | 35.1 | 2 |
| SRN | 130 | 53 | 77 | 40.8 | 59.2 | - |
| POST BASIC MID | 487 | 354 | 30 | 73 | 27 | - |

5.5.1.2. General reflections on HRH strategy, targets and achievements

**Coordinating HRH supply and inflows.**
Some new private nursing schools are beginning to graduate students this year. Generally, over the past five years.20 new training schools have opened in the public sector, of which one is by CHAG and 6 by private for profit trainers. The need to enhance regulatory oversight and ascertain the quality of the products cannot be overemphasized

*Achieving a good cadre mix*. The higher intake of trainees appears to be across the board. Some increases are into schools training existing cadres (e.g. nurses) but there are also newly created cadres (e.g Nurse practitioners (UDS Tamale), new Medical Assistants, health assistants (various categories) health Aides, Direct Midwives etc) b eing trained in increasing numbers. Certain categories have been revised so professional nurses now have 3 categories SRN, RGNs and Degree nurses in training. Community Health Nurses are now trained at both Diploma and Certificate levels. While a vertical skill mix and task shifting approach to middle level workers is desirable, care must be taken to limit the horizontal mix (a mix of cadres with essentially the same or overlapping skills/tasks) or risk complicating an already difficult labour and pay rationalization environment. The health sector must be careful not to use a "shot gun" approach to HR supply but target the new cadres very carefully and take into consideration the likely resource limitations of current personnel emolument levels and the comparative economic advantage of different cadre types[7].

*Coordinating public and private intake into training schools*. Projections of cadres planned for the next few years requires careful coordination of both private and public sector production with a good appraisal of attrition and emigration scenarios. The down-turn in nurse emigration for example may mean that having a massive over supply in future will have implications. Secondly, the high personnel

[6] Some degree program entry requirements overlap with the diploma/certificate nursing entry requirements in terms of SSS score aggregates required)
[7] For example, RCH at technical review targets a 75% reduction in MMR by 2015. what are the staff profile and cadre targets for attaining this?

emolument costs makes it important to understand how best to absorb the forthcoming supply from current intakes into the workforce.,

*Mid level health worker emphasis.* The current surge of intake of health trainees is broad based and targets a wide variety of cadres. The policy direction to produce mid-level workers has seen marked increases in Community Health Nurses training (to increase CHPS coverage). In addition a new cadre of Medical Assistants has been planned for Kintampo health training school who should have an expanded skills base. The skill base of these particular cadre needed to substitute for doctors in deprived areas and to enhance effectiveness of health centre interventions has to be carefully planned. In Tanzania, Zambia, Malawi, Mozambique, and to some extent Kenya, medical assistants with surgical skills have contributed significantly to extending emergency obstetric care to locations that previously did not have access. The benefit of producing new Medical Assistants will be lost if their tasks and skills are not enhanced to make a significant impact. "Health Aides", an auxiliary group have been trained by various hospitals and regions to supplement the base clinical workforce and currently. "Health Assistants", subsidiaries cadres of various technical groups - (clinical, X-ray, etc) are being trained and in addition the National Youth Employment Program (NYEP) announced production of 13,000 "health extension workers" trained and paid by the NYEP with peripheral links to the MOH and it is unclear what specific niche this cadre will fit into and they do not seem to feature in the proposed HRH strategy (2007-2011). It will be important to conduct a careful skill mix analysis, targeting specific areas of need, assessing the long term implications of the infusion of 13,000 basic care workers including the need for professionals who will supervise them. Health extension workers will be particularly useful if aimed at specific objectives of a major push at ensuring community water safety and sanitation for example, which are major contributors to ill health.

The current HR projections provided in the new HR strategy do not articulate clear priority targeting to specific health goals, e.g. the health MDGs. There is a danger of an increase availability of health workers without a positive effect on health outcomes.

Key questions arise - will it be best to consolidate into as few categories of new cadres as possible aiming for a more broad skilled cadre that can be deployed in a flexible manner?. Will it be prudent for example, to extend the basic training of CHNs to include core midwifery to tackle the maternal health area? Will it be more prudent to aim the new health extension workers specifically at the major issue of urban and rural water safety and sanitation problems essential for good health and avoid overlaps with existing cadres? Given the high personal emoluments proportion of the recurrent budget and continuing expansion of the workforce, there is need to analyse the fiscal space for absorbing the new workforce.

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

A second source of attrition comes from the age profile of key cadres anticipated retirements. Review team members reported meeting with rather elderly CHOs during field visits with implications for future practical supervision and planning replacements (for example with midwifery qualified CHNs). Other losses (sometimes temporary) need internal policies and guidance. In Greater Accra Region it

appeared that applicants for long term study leave and the upgrading course was an important cause of staff shortages[8].

**Managing with the existing stock of staff.**
With 2006 salaries at one of the highest levels in Africa, expectations arise for a commensurate increase in productivity of the workforce and for significant improvements in health output and outcome indicators (Currently, according to a MOH, World Bank report, staff productivity varies widely in the country). HRH availability is now being improved by increased supply and reduced attrition and getting results from having the right numbers requires organizing, distributing and utilizing the workers more effectively. In this section we review some of the human resource planning and management levers planned or needed to attain better utility from the workforce.

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

*HR Decentralization.* HR planning occur with districts and regions holding workforce hearings as part of the budgeting process in the GHS. How these needs relate to the sector wide projections from the MOH is not clear. Currently staffing needs are based on standardized norms that are more than 15 years old and may not really reflect current workload reality and needs to be reviewed. Various aide-memoire during this five year POW period referred to an HR and payroll decentralization objective including hiring and firing. Though desirable, this objective has been slowed perhaps by an understanding of the complexity of the process and capacity needs required to make this work. The Ministry for Public Sector Reform is said to have initiated a process and has selected the health sector to pilot payroll decentralization. However, this activity has been stalled because of a lack of funds to train and equip the centres. The pilot process should help generate criteria and standards that each BMC should attain before being allowed payroll authority. Uganda's health sector has had significant experience with decentralizing payroll to local government (and then recentralizing certain key posts) and it will be worthwhile to learn from its experiences on transparency and governance of hiring and firing processes and avoiding unforeseen career progression restrictions for District Directors.,

*Staff distribution and productivity issues.*
Getting improved performance from the now better remunerated workforce must be the major focus of HR strategy. Staff distribution targets must be set , measures implemented and monitored. Productivity of staff must be improved through better workload targeting of distribution. Staff posting and distribution must be more forcefully enforced.

Regional HR managers cite the absence of staff housing as affecting enforcement of postings to deprived areas and this should be factored into Capital development plans of the sector. The Deprive Area Incentive Allowances (DAIA) have been instituted for some time with mixed results. Analysis in 2006 shows the DAIA constituted a relatively small part of take home pay and is unlikely to influence distribution. Therefore more robust measures and incentives must be found to improve workforce distribution. It is recognized that the current PE levels will mean that non financial incentives and measures must play a major role in this. Examples of such measures are noted below.

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

**Possible non Financial distribution incentives**

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

**Possible administrative measures to facilitate distribution**

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

**Box 13**

Decentralization of HRH will mean the role of regional HR managers will become even more important. Our observation is that while HR managers have been useful, so far their performance and roles vary between regions. Their capacity must be built through in-service training and by establishing uniform HRH management systems (e.g. HRIS software, posting and promotions guidelines etc).Various regions have already established their own personnel records systems and these could be shared nationwide to provide better HR data and statistics for planning and productivity analysis [9]. For this to work well there should be agreed coherence to common data standards and analysis.

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

To understand the workforce better HR data should support better operational decision making.

**Box 14**

**POSSIBLE INDICATORS FOR IMPROVED ANALYSIS OF HRH UTILITY.**

- STAFF REGENERATION & INCREASE RATIOS
    - Number of new professional cadres entering the workforce as a percentage of the losses for that year. Can be a regional level indicator

- EQUITY - HIGH /LOW POPN RATIOS - to measure the extent of success with distribution: key health worker/population ratios disaggregated by regions and showing trends.

- HR Decentralization - % and type of staff recruited and paid at local levels
    - TRAINING. (Student quality indicators)
    - Tutor regeneration (number of new tutors/ tutor losses)
    - Student tutor ratios Trends by various cadres

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

5.5.1.3. Recommendations.

- HR data should now also focus on quality indicators -e.g. of trainees competence,
- Workforce productivity and distribution. There is need to clarify the strategic niche of health extension workers proposed by the youth employment program and to avoid duplication and overlap with existing cadres roles and the future payroll implications of these raises.
- With retention improving, new incentive mechanisms are needed to focus on distribution and performance and possible non-financial levers should be assessed.
- The proposed Staff Postings and Allocations committee should be clearinghouse for staff distribution by the agencies. It can assist to determine service areas in staffing crisis; match available staff resources with vacancies, skill needs and determine priority placement with collective responsibility to avoid slippage between agencies.

### 5.5.2. Management Performance.

5.5.2.1. Context and Achievements.

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

**Having sufficient managers.**
In 2004, some 67% of District directors met the criteria (having an MPH) and were formally appointed as DDHS leaving 43 % vacancies. The qualification for DDHS is thought to favour physicians, making it difficult for cadres without an initial professional qualification at degree level to compete for this post no matter their experience and effectiveness, a cause of some mild disquiet. Only 55% of medical superintendents posts were filled during the managerial appointments in 2004. The policy of appointing managers to four year terms is now fully operational in the GHS and if well enforced may motivate good manager performance. Management posts now have specific salary scales attached (However person at the grade of Specialist who serve as DDHS have opted for that designation and its higher pay scale.).

**Table 7Illustrative Proportion of manager posts filled by regions (as at July 2004)**

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

| | | | |
|---|---|---|---|
| National Avg | 70% | 62% | 100% |

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

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

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

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

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

**Table 8**Eastern Region Monitoring - 2006 District League Tables

| NO | DISTRCT/ SCORE | 1. SURVEILLANCE 100 | 2. UNDER 5 MORTALITY 100 | 3.MATERNAL MORTALITY 100 | 4.0 MANAGEMENT 100 | Monitoring Scores (40%) | Continous Assessment (40%) | Exhibition (20%) | Total | PC |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | WEST AKIM | 99 | 85 | 100 | 90 | 93.5 | 78.6 | 15 | 62.4 | |
| 2 | BIRIM NORTH | 92 | 78 | 95 | 89 | 88.5 | 83.2 | 12 | 61.2 | |
| 3 | EAST AKIM | 95 | 84 | 98 | 95 | 93.0 | 73.2 | 15 | 60.4 | |
| 4 | KWAHU WEST | 84 | 73 | 88 | 86 | 82.8 | 78.4 | 14 | 58.4 | |
| 5 | FANTEAKWA | 91 | 73 | 78 | 81 | 80.8 | 82 | 12 | 58.3 | |
| 6 | ASOUGYAMAN | 98 | 77 | 94 | 91 | 90.0 | 66 | 15 | 57.0 | |
| 7 | KWAHU SOUTH | 90 | 83 | 88 | 80 | 85.3 | 72.1 | 12 | 56.5 | |
| 8 | KWAEBIBIREM | 92 | 82 | 96 | 85 | 88.8 | 58.1 | 15 | 54.0 | |
| 9 | NEW JUABEN | 100 | 91 | 100 | 88 | 94.8 | 54.9 | 12 | 53.9 | |
| 10 | MANYA KROBO | 99 | 83 | 99 | 92 | 93.3 | 56.2 | 10 | 53.2 | |
| 11 | YILO KROBO | 98 | 86 | 100 | 84 | 92.0 | 53.4 | 13 | 52.8 | |
| 12 | S.K.C | 80 | 69 | 91 | 74 | 78.5 | 64.1 | 14 | 52.2 | |
| 13 | AFRAM PLAINS | 88 | 82 | 100 | 83 | 88.3 | 54.9 | 13 | 52.1 | |
| 14 | AKWAP NORTH | 77 | 76 | 100 | 91 | 86.0 | 53.1 | 15 | 51.4 | |
| 15 | BIRIM SOUTH | 85 | 93 | 76 | 92 | 86.5 | 50.1 | 6 | 47.5 | |
| 16 | AKWAP SOUTH | 75 | 77 | 60 | 84 | 74.0 | 54.2 | 10 | 46.1 | |
| 17 | ATIWA | 69 | 63 | 67 | 60 | 64.8 | 59.2 | 6 | 43.3 | |

5.5.2.2. Recommendations.

- With a focus specific to managers/BMC heads there is a need to design and formally publish job descriptions, competency frameworks and performance results for types of managers.
- Management development in the sector needs some level of attention with a setting of priority targets especially managers responsible for service outputs. Medical Superintendents will need short management programs (not necessarily degrees) as a condition for appointment. In general management is best developed through very practical approaches to training and establishing mentoring and coaching systems.
- As things stand currently there is little accountability expected from managers for the results of service delivery. The league tables and other forms of monitoring and support where performance is weak need to be institutionalized.

- Performance appraisal of staff should be initiated for BMC managers. This provides opportunity to set up a feasible system with limited numbers and also prepares managers to be able to handle appraisal systems when this is extended to other staff.
- Overall, there is a need to review and establish mechanisms for improving management systems and performance - a) the training/assigning of BMC heads; b) management competencies and skills development, (c) robustness of management support systems (e.g. HMIS) and (d) creating the incentives that motivates managers to perform with the understanding that performing managers drive the performance of other staff.

### 5.6 The Health Information System

The health information system has principally two functions: 1) a management tool for health planners at the level of data-collection and the next level above, and 2) a tool for policy- and strategy making at central level. This section focuses on the first function;.

To provide guidance to the operational level for the HMIS, GNHS developed guidelines[10]. It outlines the internal reviewing process, including a time-line for each level when to hold performance hearings for discussing the indicators, on when it should present a report, how aggregation of information is organised. This approach is based on peer-review, aiming at setting priorities and defining feasible implementation strategies – stimulating analysis at the level data were collected. A standard list of mandatory indicators is provided including their definitions.
A strong feature of these guidelines is that emphasis is put on the use of local data for local analysis and decision making, rather than on providing information to higher (aggregation) level. The advantages of standard reporting are clear: it provides guidance for managers that may have less experience on the matter, it ensures that higher levels will obtain the information they need, and it makes comparison possible between different districts, regions or hospitals. However, the system seems rather 'heavy'; standard reports are overly comprehensive, and consequently the burden of work may well outweigh the benefits of the system. In the guidelines there are 26 sub-chapters for the report – all of them important – that should discuss 111 indicators that are all important, too.

Perhaps, the number of indicators needs to be reduced, and an in-depth assessment could be considered to make revisions. As a start, the team gives the following suggestions, such as:

- the institutional maternal mortality which will probably say little on health status (it may be even a good sign if it increases) – more important is that an audit is carried out.
- It is not always useful to provide *and* nominal numbers *and* proportions of the same variable, unless the nominal number will be used for workload calculations (e.g. no. of out-patients/ MD);
- Six indicators on visits from a superior level seem to be much.
- ANC-4 is to be preferred to ANC-1, ;

It would perhaps be good, after limiting the number of indicators as described above, to introduce a number of indicators that say something about the **performance** of the services, such as:

- "penta-3/ penta-1" or "ANC 4/ ANC-1" or "attended deliveries/ ANC-1". The assumption is then that all pregnant women that come for ANC-1, should also be possible to motivate them to come for ANC-4 or an attended delivery – those who don't come may be seen as "lost opportunity" for the services.

Anyway, if indeed performance contracts will be introduced they need to be monitored, specific performance indicators need to be introduced. It will be impossible to hold facilities or HRH accountable on indicators such as "proportion of WIFA accepting FP", as this is highly dependant on external conditions such social-cultural factors. *A clear set of indicators for performance based management needs to be established.*

In an attempt to increase its ability to better assess overall performance of the health sector, MOH is currently developing a 'Central Data Repository' at central level. This system, which now is piloted with data from in 20 districts, will eventually become a comprehensive database with information on providers, and other agencies. This instrument may further strengthen accountability of MOH towards other players in the health sector, including DPs.
There are still a few **opportunities** in the system under construction that could be further explored. Such as:

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

- Des-aggregation of the data for gender, age-group, and poverty. The level of geographical des-aggregation is the regional level, sometimes by district – as the repository will certainly be used for priority-stetting in resource allocation.
- Actually the interface between the different type is not yet clear – it would be interesting to link each HRH to the facility (s)he works in. Or e.g. link training received, promotion made etc to the individual HRH, to be able to assess the career of the HRH.
- As it looks now, the repository stores the facilities without mapping them geographically – it could become an important tool for planning extension of the health care coverage, and thus for capital investment planning.
- Also, it would to be recommended to link the repository better to health research: it may help to establish the research agenda.

5.6. Transport, equipment and procurement.

Issues and data on procurement and equipment are summarized in Annex ZZZ

5.6.1. Transport.
It is estimated that an average procurement of between 1,252 of various categories of vehicles needs to be procured for the health sector (Source Transport Unit MOH) for the next 5 year PoW. The vast majority of the sector's vehicles of all categories are over aged and this has a huge impact on the recurrent expenditures of the sector. The number of over aged vehicles was put between 60% - 65% of the total fleet of the health sector and the break down was given as follows:

**Table 9**Health Sector Vehicle Fleet & Age Percentages (Source MOH Transport Unit)

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

The strategic break down of vehicles procurement and distribution was not clear. The proportions and types and distribution to deprived areas and peripheral health services was not clarified in the plans for the forthcoming program of work. For example, the Madina and Ussher Health Centers with many outreach programs had a vehicle each which was also shared with other health facilities. The allocation of transport needed to support actual health delivery services requires to be reviewed

Further details will be given on the area of transport in Annex XXX

**Recommendations**
- A proper needs assessment of transport has to be made and realistic targets set given likely resource availability and targeting priority areas of need likely to impact on health service coverage and quality.
- The recurrent expenditure implications of new vehicle procurement has to be estimated for within the CIP framework
- All vehicle needs assessments must be integrated across the sector

5.6.4. Conclusions / recommendations

Much work has been undertaken in the previous PoW 2002 – 2006 which has received some commendations in the various reviews undertaken by the Independent Review Teams of past. However, a lot has also changed ever since, which raises some questions over what hasn't been achieved in the previous PoW. The Health Sector is still going through much transformation and some positives have been achieved over these years. Increased adjustments in Personnel Emoluments which

have shot up so dramatically are something worth mentioning. Health Sector strikes has generally subsided for now, and other achievements such as the following can be mentioned:

- IGFs of most health centers and polyclinics seem to be going up but with increased expenditures as well if the IGF of BMCs under the Greater Accra Regional Health Administration is anything to go by in their Annual report for 2006.
- Some investments are being made in CIP, infrastructure, CHPS to be precise in most Districts and Sub-Districts across the country.
- Introduction of the National Health Insurance Scheme (NHIS) and other interventions are laudable achievements in the sector
- Some health facilities have been improved and new ones being built ,especially CHPS compounds in the District, Sub - District and community level in the sector

Given the broad spectrum of deliverables expected from the next 5 year PoW for the Health Sector care and proper planning must be the guiding principle. CIP budgeting must also be strengthened and capacities improved in needs assessment, prioritization, resource mobilization, resource allocation and budget execution are key to sustained growth in the sector. A well functional monitoring, evaluation and reporting system has to be developed and implemented to ensure judicious use of all funds made available for Items in the budget, especially Items 3 and 4. This would build confidence and trust in the light of current resource constraints facing the health sector. More investment is needed in the sector to build a viable and feasible health delivery system in the country.

## 6. GOVERNANCE AND FINANCE.

### 6.1. Governance

#### 6.1.1. MOH and its agencies

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

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

MOH oversees the health sector in Ghana and has the mandate to assess and monitor the country's health status and advise central government on health policies and legislation. The MOH formulates strategies and designs programmes to address health issues and seeks to promote healthy living and healthy habits in the people. The MOH achieves its aims through policy formulation, standards setting, (acquisition for) resource mobilization and monitoring and evaluating sector performance. The Health Sector Agencies (which are: THBs, GHS, CHAG, Specialized Hospitals Regulatory and Statutory bodies) by legislation and other statutes execute Ministry's policies and exercise regulatory and other functions.
The information obtained from our interviews was not always consistent, and assumptions and observations have been made on current practices within the Health Sector that have adviced our recommendations.

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

- The ongoing attempts at role clarification by the Ministry through deliberate exercises such as the "Restructuring of the Ministry of Health Study" and earlier studies (e.g. KPMG analysis some years ago); the reported lack of a unified approach and weak linkages between certain (seemingly) duplicated roles such as the Human Resource Departments of the two entities; lack of follow-up on earlier attemps to clarify 'core-businesses of MOH and GHS – e.g. during a meeting in Elmina 2 years ago between MOH and GHS. One issue constantly leads to much debate: the fact that MOH is also involved in the implementation of programmes and services (e.g. procurement); this is perceived as unnecessary duplication.
- A perceived dichotomy between the two entities expressed by some officials about the Ghana Health Service Council seeking to act without deference to the Minister, Regional Health Administrators who did not consider themselves to be representatives of the Minister in their specific Regions, etc.
- Actions of the MoH perceived as ultra vires to its restricted policy formulation (and not implementation) mandate by some agency officials.

Our review conjectures that the MoH/GHS divide may be a result of a mix of a) transitional issues, including the need for legislative review, interpretation and education, and b) the presence of factors that weaken the Ministry's control and leadership, and c) physical location of various corporate components of the MOH and GHS. In addition, a lack of clarity as to the formal and informal role

separation of the two sector entities and learning to use appropriate and subtle influences to engage agencies' performance.

Transitional Issues in the wake of the coming into effect of Act 525.

The legislative instruments that were expected to operationalize law 525 have not been promulgated though drafts were prepared some time ago. It was widely acknowledged that Act 525 may require review in some parts, and that the MoH (as well as the agencies) lacked proper interpretation and appreciation of the intent and spirit of the law in which might favour achieving using structured dialogue and not simply administrative fiat.

Section 2 (a) which stipulated that health personnel in the employment of the MoH would comprise the new Service, saw senior health personnel in critical policy roles move into the GHS. For a while they exercised dual functions straddling both organizations. This initial duplication may have given rise to tensions seen during the transition period as the actions and processes for realizing the separation of functions were not well structured and managed. Issues of seniority, hierarchy of senior positions in the GHS and MOH are perceived as having played a role in the difficulties between the MoH and the GHS.

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

Factors Weakening Control/Leadership

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

Towards Strengthening Leadership at the MoH

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

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

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