Monitoring and Evaluation Plan

GHANA HEALTH SERVICE

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FOREWORD

The Ghana Health Service has over the years been implementing different programme of Work and have been reporting on its performance. There is an elaborate system to ensure that the Ghana Health Service accounts for its stewardship. The processes involved in doing this are in various documents. This effort to document these monitoring and evaluation processes in one document is one of the important steps in the overall attempt to improve the monitoring and evaluation within the service and ensure accountability within the service.

It is hoped that this document will provide direction for Districts, Regions, Divisions and Programs to better monitor and evaluate the implementation of their programme of work.

Thank You

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Ag. Director General

Ghana Health Service.

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List of Acronyms

ACT	Artemesinin Combination Therapy
AFP	Acute Flaccid Paralysis
AIDS	Acquired Immunodeficiency Syndrome
ANC	Ante Natal Care
ART	Anti-Retroviral Therapy
ARV	Anti-Retroviral
BCG	*Bacillus Calmette-Guérin* Vaccine
BMC	Budget Management Centers
CEmONC	Comprehensive Emergency Obstetrics and Neonatal Care
CHAG	Christian Health Association of Ghana
CHIM	Centre for Health Information Management
CHO	Community Health Officers
CHPS	Community-based Health Planning and Services
CHW	Community Health Workers
CSO	Civil Society Organization
CYP	Couple Years of Protection
DA	District Assembly
DDHS	Director of District Health Services
D-G	Director General
DHIMS	District Health Information Systems
DHMT	District Health Management Team
DHS	Demographic and Household Survey
EmONC	Emergency Obstetrics and Neonatal Care
EPC	Environmental Protection Council
EPI	Expanded Programme on Immunization
FHD	Family Health Division
GHS	Ghana Health Service
GOG	Government of Ghana
HASS	Health Administration and Support Services
HIO	Health Information Officer
HIRD	High Impact Rapid Delivery
HIV	Human Immunodeficiency Virus
HO	Health Sector Objective
HRD	Human Resource Division
HRDD	Health Research and Development Division
HSMTDP	Health Sector Medium-Term Development Plan
ICD	Institutional Care Division
ICT	Information and Communications Technology
IGF	Internally Generated Funds
IALC	Inter-Agency Leadership Committee
IME	Information, Monitoring and Evaluation Department
IPT	Intermittent Preventive Treatment
IT	Information Technology
ITN	Insecticide Treated bed-Net

LDP	Leadership Development Programme
LI	Legislative Instrument
MDG	Millennium Development Goals
MICS	Multi-Indicator Cluster Survey
MLGRD	Ministry of Local Government and Rural Development
MOFEP	Ministry of Finance and Economic Planning
MOH	Ministry of Health
MOWAC	Ministry of Women and Children's Affairs
M&E	Monitoring and Evaluation
NACP	National AIDS Control Programme
NCD	Non-Communicable Disease
NDPC	National Development Planning Commission
NGOs	Non-Governmental Organization
OPD	Out-Patient Department
OPV	Oral Polio Vaccine
NMCP	National Malaria Control Programme
NTP	National Tuberculosis Control Programme
PHD	Public Health Division
PNC	Post Natal Care
POW	Programme of Work
PPME	Policy Planning Monitoring and Evaluation Division
PPP	Public Private Partnerships
RDHS	Regional Director of Health Services
RDT	Rapid Diagnostic Test
SBS	Sector Budget Support
SD	Skilled Delivery
SP	*Sulfadoxine Pyrimethamine*
TB	Tuberculosis
TBA	Traditional Birth Attendance
USB	Universal Serial Bus
WIFA	Women in the Fertile Age

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1. INTRODUCTION

1.1. BACKGROUND

The Ghana Health Service (GHS) annual program of work (POW) are developed from the Health Sector Medium-Term Development Plan (HSMTDP) - 2010-2013 and they mirror the government's development agenda for the medium term and are aligned with the national objective of attaining middle income status by 2015. The HSMTDP 2010- 2013 builds on the general principle of providing affordable primary health care (PHC) that is both cost-effective and ensures equitable access to healthcare for all people living in Ghana. The HSMTDP has been synchronized with the third 5-year POW which is truncated to allow for consistency in the development and provision of health services.

The HSMTDP 2010 - 2013, was developed through an elaborate consultative process involving key stakeholders including development partners, and non-governmental actors in Ghana's health industry. It is based on the broad guidelines of the National Development Planning Commission (NDPC). The consultation process was further enhanced by a series of key stakeholder consultations at the national, regional and district levels involving development partners, health sector NGOs, health workers and other sector collaborators such as the Ministry of Local Government and Rural Development (MLGRD), Ministry of Women and Children's Affairs (MOWAC) and Environmental Protection Council (EPC).

The GHS which is the largest service agency of the Ministry of Health (MoH) will contribute significantly to the achievement of the sector indicators. GHS provides public health and clinical services at both primary and secondary levels. The Service operates at the national, regional, district, sub-district and community levels. It serves as the main representative of the MoH at these levels, providing supervisory, monitoring and evaluation (M&E) support. Through its Centre for Health Information Management (CHIM) service data is collected using DHIMS at all levels. The District Health Information Management System (DHIMS) database is the platform for collecting, collating and analyzing health data. The reports generated from this database feed into the sector-wide indicators, milestones and programme indicators used for monitoring and evaluation.

1.2. RATIONALE

The GHS is accountable for its stewardship as defined in the HSMTDP. There is the need therefore for arrangements and processes that will measure the performance, track objectives, milestones and set targets to ensure that resources are efficiently deployed to achieve the greatest impact, and keep the Service on track. The development and implementation of an M&E plan will provide guidance in the implementation of GHS POW derived from the HSMTDP to achieve set objectives

and targets. It will also make an allowance for identifying challenges to implementation for timely and appropriate remedial measures to be taken. The GHS M&E plan will also delineate the roles of Divisions and Programmes in the M&E process and guide overall stakeholder involvement in measuring health sector performance.

1.3. PROCESS OF DEVELOPING THE M&E PLAN

The M&E plan is built on existing M&E arrangements and processes in the health sector. The indicators and milestones for assessing the performance of the Service are derived from sector wide indicators which were developed through elaborate consultations with stakeholders facilitated by the Ministry of Health. Indicators and targets from other strategic documents and some existing M&E plans were also adopted.

The process of developing the sector wide indicators began with internal consultations at agency level. Following these, submissions were made to the Ministry of Health accentuating the need to either modify the tools for assessment or modify targets, indicators, or milestones. These submissions were consolidated and circulated widely to stakeholders for consideration and comments. Additional contributions were received from other stakeholders, particularly the health sector development partners.

The Divisions within the Service provided the targets for the various indicators as defined under the Health Sector objectives.

The development of the GHS M&E plan began with a zero draft prepared by the Policy Planning Monitoring and Evaluation Division (PPMED) of the GHS. Existing documentation on the M&E processes within the Service were pulled together and a three-day consensus and writing workshop was held at the Dodowa Forest Hotel from the 6th- 8th September 2011 with stakeholders from the MoH and GHS to put together the final M&E plan. Management Sciences for Health (MSH) through TB CARE I Project provided both technical and financial support to facilitate to the workshop. The Dodowa team comprised the following:

Table 1: Participants at Writers Meeting

No	Names	Designation
1	Dr. Anthony Ofosu	Ag. Deputy Director, IME/PPME
2	Ms. Ekui Dovlo	Principal Human Resource Manager
3	Dr. Boateng Boakye	District Director of Health Services – Ashanti Region
4	Dr. Bert Schreuder	Consultant, KNCV Tuberculosis Fund
5	Dr. Rhehab Chimzizi	TB CARE I Project Country Manager, MSH
6	Ms. Eunice Sackey	Program Officer Reproductive and Child Health
7	Dr. Linda Vanotoo	Regional Director of Health Services –Western Region
8	Dr. Ofori Yeboah	District Director of Health Services – Central Region

9	Dr. Paul Ntodi	Regional Hospital Medical Director – Western Region
10	Ms. Mabel Segbafah	Health Educator - GHS
11	Dr. Beatrice Heymann	M & E Specialist - GHS
12	Mr. Isaac Akumah	Administrator, PPME
13	Mr. Francis Victor Ekey	Ag. Deputy Director, Planning - HRDD
14	Dr. Cynthia Bannerman	Ag. Director, Institutional Care Division
15	Dr. Felix Afutu	TB Control Program Officer
16	Ms. Hilda Smith	MSH TB Project Officer
17	Mr. Prince Asante	Health Service Administrator
18	Mrs. Esi Amanful	Nutritionist – GHS/HQ
19	Mr. Daniel Darko	Head, Centre for Health Information Management
20	Mr. Daniel Osei	Ag. Director, Policy Planning Monitoring & Evaluation Division - GHS
21	Dr. Edward Antwi	Deputy Director, Public Health – Greater Accra Region
22	Dr. John Eleezar	Deputy Director, Public Health – Central Region
23	Dr. Alex Nazzar	Public Health Specialist - GHS
24	Dr. Constance Bart-Plange	Program Manager, National Malaria Control Programme (NMCP)
25	Dr. Daniel Asare	Regional Hospital Medical Director – Eastern Region
26	Mr. Daniel Degbotse	M & E Specialist - MOH
27	Mr. Ransford Akorli	Deputy Chief Accountant - GHS
28	Dr. Kyei-Farried	Deputy Director, Disease Control
29	Mrs. Ramatu Ude Umanta	Ag. Director, Finance Division - GHS
30	Mr. Bernard Asamany	Ag. Deputy Director, Procurement and Logistics - GHS

Following this meeting further corrections were made into the documents and another team was put together to work on finalizing the document. This meeting took place from 12th- 14th December 2011 at the ERATA Hotel in Accra. Present at this meeting were:

Table 2: Participants at Document Finalization Meeting

No	Names	Designation
1	Dr. Anthony Ofosu	Ag. Deputy Director, IME/PPME
2	Dr Kyei Faried	Deputy Director Disease Control
3	Dr Patrick Aboagye	Deputy Director Reproductive and Child Health
4	Mr Isaac Akumah	Health Services Administrator- PPMED
5	Ms Eunice Sackey	Program Officer Reproductive and Child Health
6	Mr Ekow Biney	Institutional Care Division
7	Dr Alex Nazzer	Public Health Specialist - PPMED
8	Mr. Daniel Darko	Head, Centre for Health Information Management
9	Dr. Rhehab Chimzizi	TB CARE I Project Country Manager, MSH

2. SITUATIONAL ANALYSIS

Monitoring and Evaluation within the GHS depends largely upon monthly routine service data generated from all districts and sub-districts. In Ghana, almost all the yearly health sector reviews and the aide memoires have called for an improvement in the existing health information system for better decision-making and supporting the health system to deliver on key interventions and to achieve set objectives within the PoW and the MDGs.

Apart from these routine data, the health sector also collaborates with stakeholders such as the Ghana Statistical Service (GSS) and research institutions to undertake periodic health surveys and sentinel studies including the Demographic and Household Survey (DHS) and the Multi-indicator Cluster Survey (MICS). Such surveys provide the health sector with additional information for monitoring and evaluation that contributes to policy-making and re-strategizing.

The Health Sector, in an attempt to improve access to an integrated service data developed and successfully deployed the DHIMS software in 2008 within the health sector. This was to help district, regional and national managers to improve on the collation and analyses of routine service data.

Service registers are provided at service delivery points in all health facilities to accumulate client demographic and healthcare information. This information constitutes the primary data sources for monitoring and evaluation within the service. Standard forms are used to manually summarize data from these service registers monthly for transmission to the District level. At the District level, the DHIMS is used to collate and analyze the data and it also provides the platform for sending this data to the Regional level.

2.1 SWOT Analysis of the GHS Monitoring and Evaluation System

2.1.1. Strengths

♠ *Planning of the M&E process*

- M&E plans included in majority of service delivery activities and POW
- M&E being done for service delivery at all levels

♠ *Implementation of M&E plans and activities*

- Data collation and analysis usually takes place at all levels
- Reduced vertical data reporting system and multiple databases
- Standardized data entry forms available
- Specialized programmes have designated budget for M&E

- DHIMS is used at all levels in the health sector.

♠ *Evaluation of POW and Sector Performance via M&E activities*

- National Division PPME tasked with coordinating M&E in the health sector
- Bi-Annual Health Summit of stakeholders' that evaluates health sector performance
- An annual Independent Review of sector performance
- Outcomes of performance reviews jointly addressed
- Joint monitoring visits among MOH and its agencies institutionalized.

♠ *Dissemination of Information*

- Results of M&E activities at all levels collated and published periodically.
- Periodic Performance Reviews and data validation meetings organized at all levels in the health sector
- Reports of Independent reviews widely disseminated.

2.1.2. Weaknesses

♠ *Workforce gap*

- *Inadequate* understanding of M&E procedures and processes
- Inadequate M&E skills and capacity to conduct M&E activities.

♠ *Resource Management gap*

- Occasional stock-outs of data *collection tools*
- Data collection tools not regularly updated.
- Inadequate linkage between input, output and outcomes within sector/programme budget
- Inadequate guidance and processes for setting targets.
- Weak process indicators
- Inadequate tracking of resources
- No Standard Operating Procedures documented for data management
- Inadequate documentation on existing M&E processes
- The incomplete use of the DHIMS software by districts to collate and report on routine service data
- Very low coverage of private facilities service data

♠ *Leadership and Governance gap*

- M&E is not given the needed attention at all levels.

- Inadequate monitoring of M&E plans at all levels
- Very little commitment to M&E processes
- Weak process monitoring.
- M&E not included in planning at all levels
- Lack of a platform to link service parameters to governance parameters
- Lack of two-way accountability at all levels
- No sector goals for M&E system
- Weak feedback mechanisms and use of data to revise planning and implementation activities

2.1.3. Opportunities

- ♠ Health Training Institutions available to deepen understanding on M & E
- ♠ Global interest for results tracking and data management.
- ♠ Increasing availability of ICT solutions.

2.1.4. Threats

- ♠ Political influence and government's priorities
- ♠ Global economic instability
- ♠ Donor driven parallel M&E systems

To address these gaps strategies will be developed to address issues relating to Health Workforce, resource management and Leadership and governance.

3. PROGRAM DESCRIPTION AND FRAMEWORK

HO1: Bridging *equity gaps* in access to health care and nutrition services, and ensure sustainable financing arrangements that protect the poor								
Strategies		**Priority action**		**Activity**	**Division Responsible**	**Output Indicator**	**Outcome Indictor**	**Impact Indicator**
1.1	Strengthen district health system with a particular emphasis on primary health care	1.1.1	Improve coverage of PHC services at sub-district level through community health systems	Review of the CHPS strategy	PPMED-GHS	Number of new functional zones	Percentage of OPD cases seen and treated by CHOs. Outpatients visits per capita	Cases of vaccine preventable diseases seen.
				New functional CHPS zones operationalised	District Health Management Teams / Regional Health Management Teams			
				Provide accommodation, transportation and service delivery kits	District Health Management Teams / Regional Health Management Teams	Number of functional CHPS zones with Service delivery kits available.		
		1.1.2	Leadership capacity development of district and sub-district teams	Train sub-district teams to support approved service providers in the sub-district	HRD-GHS	Number of sub-district teams trained under LDP	Proportion of	Maternal Mortality ratio

				Strengthen DHMTs and develop the District Health Departments to operate in accordance with LI 1961	HRD-GHS	Number of DHMTs trained under LDP	funds obtained from non-traditional(GOG) sources	
1.2	Develop sustainable financing strategies that protect the poor and vulnerable	1.2.1	Develop comprehensive health financing framework	Develop a national health financing strategy	Office of DG	Team in place; Documents for financing strategy prepared.	Percentage of OPD visits by insured clients. Percentage of indigents registered under the NHIA	
				Update and institutionalize National Health Accounts	GHS-DG	Team in place; Number of fieldwork and analysis on NHA undertaken by team		
				Provide leadership and support for the review and passage of the NHIS bill, including definition of the "indigent"	GHS- DG	Number of people captured under revised definition of poor and indigent		

HO1: Bridging equity gaps in access to health care and nutrition services, and ensure sustainable financing arrangements that protect the poor								
Strategies		**Priority action**		**Activity**	**Division Responsible**	**Output Indicators**	**Outcome Indicators**	**Impact Indicators**
1.3	Increase availability and efficiency of human resources	1.3.1	Revise and implement the Human Resource Strategy	Develop a new HR strategy	HRD-GHS	New strategy document available	Nurse per capita ratio. Doctor per capita ratio Medical Assistant per capita ratio Midwife per capita ratio	
				Review establishments, staffing norms and develop and implement deployment plan	HRD-GHS			
				Agree and implement incentive package to public health sector workers in under-served areas	HRD-GHS	Number of staff in deprived areas benefitting from Incentive package agreed upon.	Proportion of doctors working in deprived areas.	Infant mortality rate Under five mortality rate Maternal mortality ratio
						Number of resident community nurses(CHO)		
HO2: Strengthen governance and improve the efficiency and effectiveness of the health								

system								
Strategies		**Priority action**		**Activity**	**Division Responsible**	**Output Indicators**	**Outcome Indicators**	**Impact Indicators**
2.1	Develop capacity to enhance the performance of the national health system	2.1.1	Leadership and management development at all levels	Design and implement in-service training programme in leadership and management for all managers in the health sector	HRD -GHS	Number of senior managers (National, Regional and District) trained in Leadership and management	Number of functional management teams in place	
		2.1.2	Performance contracting	Review and refine the system for performance contracting within the sector.	DG-GHS	New performance contract form finalized	Percentage of managers who assess the performance of their staff using the contract at midyear.	
				Training on new performance contract forms				
				Performance contract too be signed between managers and staff		Proportion of senior members in the service who have signed performance contracts by first quarter.		
		2.1.3	Enforce adherence to sound public financial management practices	Review and implement public financial management strengthening plan	Finance/Internal Audit	Completed plan. Functional audit response team in place	Number of financial issues from GHS brought before the Public	

				Build Capacity for resource tracking		Number of staff trained in resource tracking	Accounts Committee Percentage Distribution of funds by levels within the health sector. Percentage of funds used for intended activities,	

HO2: Strengthen governance and improve the efficiency and effectiveness of the health system								
Strategies		**Priority action**		**Activity**	**Division Responsible**	**Output Indicators**	**Outcome Indicators**	**Impact Indicators**
2.3	Strengthen inter-sectoral collaboration and public-private partnerships	2.3.1	Improve partnership for health by engaging the private sector.	Implement the private sector policy	GHS-DG	Number of PPP meetings held	Number of private public partnerships (MOUs) established within the service.	
				Establish advisory committee on PPP	PPMED-GHS	Advisory committee in place		
			Promote inter-sectoral coordination	GHS to be part of the development of District Assemblies composite planning	District Health Management Teams.	Number of meetings held with DA. Number of social services sub-committee meetings attended by DDHS. District plans with priority Health component included	Percentage of Priority health projects jointly implemented.	Infant mortality rate Maternal mortality ratio
				Strengthen	FHD	Number of meetings held with the	Nutritional status indicators(	

				Collaboration on school health education activities at all levels(healthy lifestyles)		SHEP coordinators Number of joint visits undertaken	Wasting, stunting, underweight and obesity)	
				Collaborate with National Commission for Civic Education to engage in mass public education campaigns to promote healthy lifestyles in the population -Material production -Advocacy for use of materials -Support campaigns	GHS- ICD/FHD Health Promotion unit	Number and types of health education materials produced for NCCE. Number of advocacy and training sessions held between GHS and NCCE. Number of Joint mass campaigns undertaken	Public awareness indicators. Behaviour change indicators	
HO2: Strengthen governance and improve the efficiency and effectiveness of the health system								
Strategies		**Priority action**		**Activity**	**Division Responsible**	**Output Indicators**	**Outcome Indicators**	**Impact Indicators**
2.4	Strengthen systems that use evidence for policy formulation	2.4.1	Develop a monitoring and evaluation plan	Prepare and implement a national M& E framework for the Ghana Health Service.	PPME-GHS	GHS M&E plan developed. Number of ME Reports	Improved performance – using the relevant indicators -quality	Infant mortality rate Under- five mortality rate

						Number of ME Feedback	-coverage -Case fatality -evidence based decisions	Maternal Mortality ratio
				Establish district league table and reward system	Regional Health Management Teams	Number of Regions with District league table and reward system in place	Dropout rates(Immunization drop-out rate Cure rate/case detection rate Workload indicators(Number of children immunized/each community health nurse)	
		2.4.2	Implement and coordinate a national research agenda	Allocate dedicated recurrent budget to health research	DG	Percentage of Item 3 GOG/SBS in ring-fenced budget allocated to research. Proportion of research agenda budget that funds are provided for.	. Number of research publications. Proportion of research recommendations carried to policy	

						Number of approved research grants.		
				Disseminate the national health research agenda	HRU	Number of Research agenda dissemination fora.	Proportion of research proposals submitted to the Ethics review board that is aligned with the national research agenda.	
				Conduct operational research /clinical trials.	HRU	Number of reports available	Number of policy decisions taken based on research findings	
			Strengthen health information management	Implement the DHIMS II	PPME	Number of districts/ Headquarters divisions trained in the use of DHIMSII	Percentage of districts using DHIMS II. Percentage of Divisions, Programmes and departments sourcing data from DHIMSII Morbidity and mortality indicators.	

							Percentage of districts with evidence of analysis and giving feedback to reporting level	
HO3: Improve access to quality maternal, neonatal, child and adolescent services								
Strategies		**Priority actions**		**Activities**	**Division Responsible**	**Output Indicators**	**Outcome Indicators**	**Impact Indicators**
3.1	Reduce the major causes contributing to maternal and neonatal deaths	3.1.1	Implement the MDG Acceleration Framework Country Action Plan for improved maternal and newborn care	Increase access to modern FP services	FHD	Number of facilities offering FP services	Modern Contraceptive prevalence rate Couple year protection	Institutional Maternal mortality ratio
				Increase coverage of skilled delivery	FHD	Number of midwives per expected deliveries.	Percentage of ANC Registrants	
						Average number of ANC visits per registrants	Percentage of ANC clients making 4+visits	
						Total Deliveries.	Proportion of registrants receiving IPT1, IPT 2and IPT3	
						Total stillbirths Total Live Births	Tetanus toxoid coverage rate	

							Proportion of stillbirths to total deliveries Proportion of deliveries by skilled attendants. Proportion of institutional maternal deaths audited.	
				Finalize and implement recommendations of the report on EmONC assessment	FHD	National and Regional EmONC Reports	Percentage of Health Centres providing BEmONC Percentage of District Hospitals providing CEmONC	Institutional maternal mortality ratio
				Strengthen implementation of Life Saving Skills at district and sub-district level and build Regional Resource Teams	FHD	Percentage of district and sub-district staff trained in LSS; Proportion of Regions with resource teams	Total number of vacuum deliveries performed Total number of manual removals of placenta done.	

HO 3: Improve access to quality maternal, neonatal, child and adolescent services								
Strategies		**Priority actions**		**Activities**	**Division Responsible**	**Output Indicators**	**Outcome Indicators**	**Impact Indicators**
3.1 (cont)	Reduce the major causes contributing to maternal and neonatal deaths		Implement the MDG Acceleration Framework Country Action Plan for improved maternal and newborn care	Evaluate the implementation of the free maternal delivery	FHD	Free maternal delivery evaluation report available and disseminated		
				Raise awareness on socio-cultural barriers to access to maternal and newborn care	GHS	Improved awareness		
				Improve access to safe blood for expectant mothers and newborns	ICD	Number of New blood storage facilities provided in health facilities	Proportion of requested blood for pregnant women that are made available Total transfusion volume	Institutional Maternal Mortality Ratio.
3.2	Reduce the major causes contributing to child morbidity and deaths	3.2.1	Implement the Child Health Policy and Strategy	Increase the uptake of EPI services	PHD	Number of EPI outreach points	Measles coverage for under one year Percentage of children immunized by age one for Penta 3.	Institutional Infant mortality rate

							Percentage of children immunized by age one for Polio 3 ——— Percentage of children immunized by age one for BCG	Infant mortality rate(DHS)
				Train health workers in IMNCI the use of ORS and Zinc to manage diarrhoea	FHD	Number of Health workers trained in IMNCI.	Proportion of facilities with functional ORT corners. ——— Diarrhoea case fatality rate	
				Train relevant Community Health Workers (CHWs) on integrated Community Case Management of Diarrhoea/Pneumonia/Malaria	FHD	Number of CHW Trained and implementing CCM Number of districts trained in Community Case Management for major childhood killers	Percentage of districts implementing community case management for childhood killers	

				Scale up school health programmes	FHD	Number of Schools inspected	Number of children referred. Nutritional status of children	Child mortality rate
3.3	Improve adolescent health	3.3.1	Implement adolescent health policy and strategy	Implement priority activities under adolescent health strategy	FHD- Adolescent Health	Number of Priority activities implemented	Percentage of pregnant women attending antenatal who are adolescents	
3.4	Improve nutritional status of women and children	3.4.1	Develop and implement National Nutrition Policy and Strategy	Develop National Nutritional policy and strategy	FHD- Nutrition	Documents finalized and disseminated	Proportion of districts with nutrition priority interventions reflecting in their action plans	
				Scale-up essential nutrition actions for women and children	FHD-Nutrition	Essential nutrition actions scaled up to cover 3 regions	Percentage of under five who are under weight presenting at facility and outreach.	Malnutrition rates(DHS)

HO 4: Intensify prevention and control of communicable and non-communicable diseases and promote healthy lifestyles								
Strategies		**Priority Action**		**Activity**	**Division Responsible**	**Output Indicator**	**Outcome Indicator**	**Impact Indicator**
4.1	Improve upon prevention, detection and case management of communicable diseases.	4.1.1	Prevention and control of communicable diseases	Perform routine immunization as well as Implement supplementary immunization activities. Provide immunization for selected epidemic prone diseases.	PHD-EPI	Number of routine EPI outreach points Number of new vaccines introduced	Non-AFP Polio rate. Immunization coverage Percentage Fully immunized Drop-out rate Left out rate Vaccine wastage rate AEFI	Vaccine preventable morbidities and mortalities
		4.1.2	Prevention, detection and management of HIV/AIDS, TB and Malaria	Implement national strategic plans to reduce new HIV infections	PHD-NACP	Number of people tested and counseled for HIV. Number/Percentage tested HIV positive Number/Percentage of eligible HIV clients on ARV	.Number /Percentage of cases alive and on ART. Number /Proportion of children born to HIV positive mothers put on ART who are negative after 18months,	Percentage of young women and men aged 15-24 who are HIV infected. Survival rate of cases put on ART. ART Resistance level

						Number of HIV positive pregnant women put on ART.		
				Implement national strategic plans to increase TB case notification and treatment success rate	PHD -NTP	Number of new and relapse cases. Number/ Percentage of new and previously treated TB patients confirmed MDR-TB. Number/ Percentage of total TB cases who are health workers	-TB case notification rate – TB treatment success rate Case Fatality rate for Tuberculosis	Incidence and mortality rate(WHO Annual report)
				Expand coverage of ITN/Ms	PHD-NMCP	Number of ITN hanged	Percentage children under five years who sleep under ITNs. Percentage of pregnant	

							women who sleep under ITNs Number/Percentage of Households with hanged nets	
				Implement national strategic plans to reduce malaria case fatality among pregnant women and children	PHD-NMCP	Number of prescribers trained in the new malaria treatment protocols	Percentage of patients treated with ACT	Maternal mortality ratio Under five mortality rate
		4.1.3	Prevention, detection and management of diseases of epidemic potential and those targeted for eradication	Maintain status and validate eradication of guinea worm and polio	PHD-NMCP	Number of cases of guinea worm reported.) Number of cases of wild polio confirmed.	Non-Polio AFP rate. Percentage of guinea worm cases contained	
				Increase activities for the control of onchocerciasis, lymphatic filariasis,schistosomiasis, Buruli and elimination of yaws and leprosy	PHD-NTDs	Number of reported cases of NTD. Coverage of mass treatment	Prevalence rate of the NTDs	

						for Oncho, shisto, LF and soil helminthes. Fly infectivity rate for		
				Early detection and rapid response to epidemic prone diseases	PHD-DCD/DS	Number of epidemic prone diseases confirmed.	Case fatality rate of diseases	
4.2	Improve prevention, detection and management of non communicable diseases	4.2.1	Implement Regenerative Health and Nutrition Programme	Establish network of stakeholders and train them to implement RHNP Promote healthy lifestyle awareness among the general population	FHD-Health Promotion Unit	Number of stakeholders trained and able to carry out their roles in the national strategy. Number and types of RHNP programmes held	Number of stakeholders with defined workplace arrangements for promoting RHNP. Measure of awareness	Practice of Healthy lifestyle(DHS)
		4.2.2	Scale up detection and management of non-communicable diseases	Establish National NCD Steering committee and define its terms of reference.	PHD-NCD	Committee established and active Minutes ,reports and guidelines		

				Expand screening programmes for selected non-communicable diseases: hypertension, diabetes, sickle cell and selected cancers.	PHD-NCD ICD	Number of persons screened and treated for selected NCDs	Proportion of Institutional deaths Attributable to NCDs	
				Increase effective clinical management of NCDs	ICD	Number of facilities with Essential equipment Number of hospital teams trained to manage non-communicable diseases. Number of facilities that have institutionalized collecting of data on risk determinant for NCDs from OPD clients(eg BP, BMI)	Percentage of OPD cases that is due to NCDs Case fatality rate For NCDs	Prevalence of NCDs

HO5 Improve institutional care, including mental health service delivery								
Strategies		**Priority actions**		**Activities**	**Division Responsible**	**Output Indicator**	**Outcome Indicator**	**Impact Indicator**
5.1	Increase access to Mental Health Services	5.1.1	Ensure the passage and operationalization of the Mental Health Act	Advocate for the passage of the Mental Health Bill	ICD-Mental Health	Mental Health Act available and operational	Decentralized mental health services. Number of treatment centers for mental Health. Availability of resource-human financial and medication Number of human rights-abuses(chaining and mechanical restraints) reported	
				Develop community mental health strategy	ICD-Mental Health	Community mental health strategy developed		
		5.1.2	Establish mental health services in all health facilities	Establish community and facility-based mental health services	ICD/Mental Health	Proportion of District Hospitals with mental health units	Registered cases.	

						Number of community mental health nursed deployed in the communities	KABP(General public and clients)	
				Disseminate and train health care providers on the guidelines and protocols for mental health services	ICD- Mental Health	Number of mental health providers trained on guidelines and protocols for mental health services	. Knowledge score	
				Increase public awareness and mobilize communities in support of mental health patients	ICD-Mental Health	Number of community volunteers working in mental health	KABP(General public and clients)	
				Intensify research, surveillance, monitoring and evaluation of psychiatric conditions - Establish Benchmarks for monitoring mental health service	ICD-Mental Health	Number of health research on mental health conducted. Early Detection rate.		

5.2	Enforce standards, guidelines and protocols to improve the quality of institutional care	5.2.1	Ensure availability and use of standards and protocols	Review and develop standard protocols and guidelines for institutional care including referrals	ICD	Number of health institutions with Standard protocols and guidelines for institutional care. Proportion of guidelines with checklist and job aids	Client satisfaction Provider satisfaction. Treatment outcome measures e.g. Disability prevention, Case fatality rate.	
			Ensure the availability of equipment and infrastructure	Develop and implement medical equipment replacement plan	HASS	Equipment replacement plan in place and implemented	Availability measure	
HO5 Improve institutional care, including mental health service delivery								
Strategies		**Priority actions**		**Activities**	**Division Responsible**	**Output Indicator**	**Outcome Indicator**	**Impact Indicator**

5.3	Strengthen the system capacity for emergency response	5.3.1	Develop and strengthen framework for emergency response	Develop and disseminate national strategies and guidelines for response to accidents and medical emergencies	ICD	Number of facilities with emergency response set up	Proportion of facilities meeting the minimum acceptable standards	
				Promote local initiatives to further expand emergency transport for pregnant women, children and others	ICD/FHD	Number of districts with Local initiatives for emergency transport in place around the country	Case fatality rate	Maternal mortality ratio(Institutional)
		5.3.2	Strengthen capacity of Accident & Emergency departments of health facilities	Train emergency medical teams for district, regional and tertiary hospitals	ICD	Number of Regional Hospitals with trained Emergency medical teams.		

DRAFT

4. INSTITUTIONAL ARRANGEMENT

4.1. MANDATE OF THE GHANA HEALTH SERVICE

The mandate of the GHS is to implement services, monitor and evaluate those services, and report to the MoH. The PPME division of GHS provides the leadership role through the coordination of all monitoring and evaluative activities in the Service. The main focus of the PPMED is to monitor the implementation of key policies and allocate resources to other divisions within the GHS.

GHS has also been given the mandate to collect health service data from private, mission, and quasi-government facilities. To facilitate this, an elaborate system for gathering service data and other information is operational within the Service. GHS also uses the DHIMS as its central software for collecting data from the districts. There are however, other parallel data collection systems, largely driven by the Global initiatives.

Data is gathered from the community, sub-district, district, regional, and national levels through the DHIMS. The DHIMS is a Microsoft Access based software used at the District, Regional and National levels to collate, transmit and analyze health data. Each health facility and administrative unit gathers such information as required and transmits the information to the succeeding level of the health delivery system. The DHIMs collects data and information on both program and service utilization transmitted through the various levels to the Center for Health Information Management (CHIM). The data collected from these levels provide the basis for monitoring performance in the Service. This also feeds into the sector wide performance review process which is organized annually. Web-based software for data collection, analysis and reporting DHIMS2 has been developed and deployed.

MONITORING AND EVALUATION FRAMEWORK OF GHANA HEALTH SERVICE

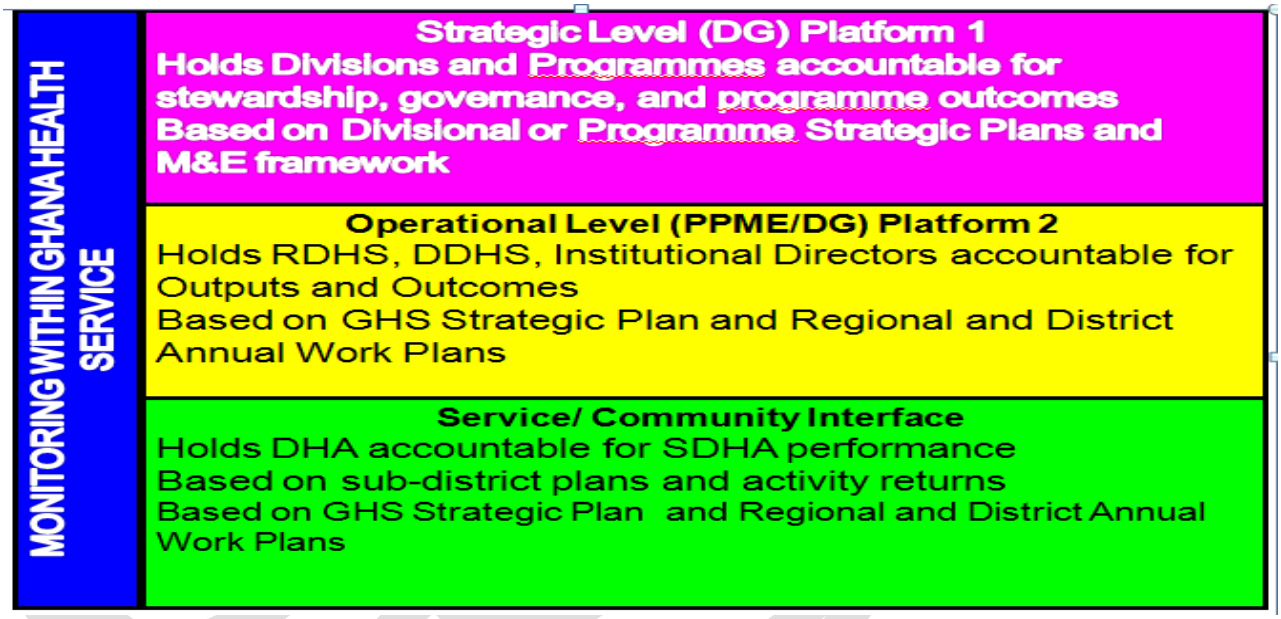
LOGICAL FRAMEWORK

		Verifiable indicators	**Means of verification**	**Assumptions**
HEALTH SECTOR GOAL	To improve access to quality health care	Maternal Mortality ratio Under-five mortality rate Neonatal mortality rate. Life expectancy	GDHS MICS	An assumption is made that improvement in access to quality health care will reduce mortality
PURPOSE1	Bridge equity gaps in access to health care and ensure sustainable financing arrangements that protect the poor	Number of CHPS zones made functional Percentage of OPD cases seen and treated by CHOs. Outpatients visits per capita	Routine Service reports	Provision of close to clients service delivery using CHPS will address the geographical accessibility as well bridge equity gaps in access
PURPOSE2	Strengthen governance and improve	Number of senior managers (National, Regional and District) trained in Leadership and	Training reports Annual BMC reports	The training being given to managers will provide them with the skills to manage the

	the efficiency and effectiveness of the health system	management Number of functional management teams in place		service better at whatever level they might be.
PURPOSE 3	Improve access to quality maternal, neonatal, child and adolescent health and nutrition services	Institutional Maternal Mortality Ratio. Skilled delivery coverage Measles vaccination coverage. Institutional Infant mortality rate Infant mortality Rate Percentage of children under five years who are stunted	Routine Service reports DHS	
PURPOSE 4	Intensify prevention and control of communicable and non-communicable diseases and promote healthy lifestyles Intensify prevention and control of	Percentage of young women and men aged 15-24 who are HIV infected. Malaria under five case fatality rate TB case notification rate Prevalence of NCDs	HIV Sentinel Surveillance Reports Routine service reports Special Survey	

	communicable and non-communicable diseases and promote healthy lifestyles			
PURPOSE 5	Improve institutional care, including mental health service delivery	Number of treatment centers for mental Health. Number of district Hospitals with mental health units Bed occupancy rare Average length of stay Bed turn over rate	BMC reports BMC reports Routine service reports	

Fig 1.Levels of Monitoring in Ghana Health Service



4.2. M&E MANDATE AND FUNCTIONS OF DIVISIONS

Monitoring and Evaluation within the Divisions and Programs, is designed to provide managers and stakeholders with the information necessary to guide the implementation of their action plans. It is therefore mandatory for all Districts, Regions, Programs and Divisions to include monitoring and evaluation activities in their respective action plans.

The Divisions within the Ghana Health Service are:

- Policy Planning Monitoring and Evaluation (PPMED)
- Public Health (PHD)
- Institutional Care (ICD)
- Family Health (FHD)
- Finance (FD)
- Internal Audit (IA)
- Health Administration and Support Services (HASS)
- Stores and Supplies Drugs Management (SSDM)
- Human Resource Division (HRD)
- Health, Research and Development (HRDD)
- Office of the Director General

Table 3: MONITORING AND EVALUATION CALENDAR

Activities	Time Frame												Actors
	1st Quarter			2nd Quarter			3rd Quarter			4th Quarter			
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Sub-district data validation meetings													Sub-district Teams
District data validation meetings													DHMT
Regional data validation meetings													RHMT
Supervision and Monitoring visits													DHMT,RHMT and IME-PPMED
District performance reviews													Sub-District Teams ,DHMT and RHMT
Regional Annual and Half year performance reviews													DHMT, RHMT ,GHS Headquarters, MOH and DPs
National GHS Head-quarters Annual and Half year Performance reviews													Divisions in GHS
Senior Managers Meetings													GHS Headquarters, RHMTs,

Technical Review meetings(TB, HIV, Malaria, RCH)													Specialized programs Programme Managers, RHD, GHS Headquarters
Joint Monitoring Visit													MOH, Agencies of MOH, DPs
Health Summit													MOH, Agencies of MOH, DPs
IME working Group Meeting													MOH, Agencies of MOH, DPs
IALC meetings													
ICC meetings(EPI, FP)													

7. M&E ACTIVITIES

7.1. Roles and Responsibilities within GHS

The Divisions within the Ghana Health Service in implementing their mandate contribute to monitoring and evaluation process

Table 4: **Roles and Responsibilities of Divisions**

Category of service provision	Division	Type of information	Frequency
1. Clinical Care	ICD	▪ Outpatient attendance	Monthly
		▪ Outpatient morbidity	Monthly
		▪ Inpatient admissions	Monthly
		▪ Inpatient deaths	Monthly
		▪ Death Audits	Monthly
		▪ Inpatient morbidity	Monthly
		▪ Inpatient mortality	Monthly
		▪ Differential use of services by patient categories	Monthly
		▪ Statement of In-Patient Admissions, Discharges and Deaths	Monthly
		▪ Bed Occupancy Rates	Monthly
		▪ Surgical Operation Returns	Monthly
		▪ Total number of beds	Monthly
			Monthly
		▪ Bed Turnover Rate	Monthly
		▪ Average length of stay	
		▪ Infection rate for caesarian sections.	Monthly
			Monthly
		▪ Laboratory Reports	Monthly
		▪ Imaging Reports	Monthly
		▪ Technical Support visits	**Then Quarterly; Half year/Annual** **Quarterly**
	FHD	▪ Supervised delivery rate	Monthly;
		▪ Caesarian section rate	Monthly
		▪ Institutional Maternal mortality rate	Monthly
		▪ Midwifery Returns	Monthly
		▪ Stillbirths	
		▪ Proportion of maternal deaths audited	Monthly
		▪ Institutional Infant Mortality rate	

		• Institutional under five mortality rate. • Underweight • Stunting • PMTCT • Exclusive breastfeeding coverage • Assessment of facilities for BFHI activities	Monthly Monthly **Then Quarterly; Half year/Annual**
Public Health	PHD	▪ Immunization (specifically Measles and Penta-3 coverage) ▪ Trend of other communicable and non communicable diseases. ▪ Disease surveillance indicators (Timeliness, completeness, accuracy)	Monthly; Monthly Monthly **Then Quarterly; Half yearly/Annually**
	PHD	▪ Trend on Diseases earmarked for eradication and or elimination. ▪ Technical Support visits	Weekly Quarterly
	FHD	▪ Antenatal coverage ▪ Postnatal coverage ▪ IPT coverage ▪ Family planning coverage ▪ School Health coverage ▪ Nutritional Status of children ▪ Adolescent Health	Monthly, Monthly Monthly Monthly Monthly Monthly Monthly **Then Quarterly; Half yearly/Annual**
Support services	Finance	▪ Trend in government funding for the health sector ▪ Trend in donor support to the health sector ▪ Trend in overall generation of internally generated funds ▪ Trend in funding from the National Health Insurance Scheme ▪ Financial data (revenue and expenditure, Fund flow).	Quarterly/ Half Yearly/ Annually

		▪ Revenue and expenditure data Funds for Monthly Capitations for Primary care (NHIA)	Monthly
	HASS	▪ State of public health facilities ▪ State of Central & Regional Medical Stores ▪ Equipment and logistics situation of the public health facilities ▪ Cost of replacing equipment ▪ Equipment Maintenance in the public health facilities ▪ Planned preventive maintenance activities ▪ Status of projects under implementation in the sector ▪ Number of health facilities by level and location, including CHPS compounds and ownership ▪ Estate management	Quarterly/ Half-yearly/ Annually
	SSDM	▪ Procurement; ▪ Procurement Plan ▪ Logistic Cycle: 1. Accuracy of Logistics Data for Inventory Management (LMIS). 2. Percentage of facilities that received their orders according to schedule (Distribution). 3. Percentages of facilities that completed and submitted LMIS	Quarterly Half -Yearly Annually

		report (LMIS). 4. Percentage of facilities that maintain acceptable storage conditions (Warehousing) 5. Percentage availability of Tracer medicines (Product Availability) 6. Percentage availability of non-medicine consumables (Product Availability) 7. Mean Absolute Percentage Error (MAPE) between forecasted consumption and Actual consumption (Forecasting) 8. Average percentage difference between consumption forecasts and actual consumption (Forecasting) 9. Percentage of stock wasted due to expiration or damage (Warehousing and Inventory management). 10. Average Delivery Time (Distribution) 11. Percentage Procurement spend to total expenditure (Procurement) 12. Average lead time for Procurement Methods (Procurement) • ICT • NCT	

		• RFQ 13. Average lead time from Award of Contract to delivery (Procurement) • ICT • NCT • RFQ 14. Percentage of procurement executed through • ICT • NCT • RFQ 15. Percentage of staff trained in Logistics management (LMIS) 16. Percentage of Procurement and Supply Officers at post. 17. Percentage of procurement executed with PPA approval. 18. Percentage of procurement executed without PPA approval.	
Human Resource	▪ Human resource for service delivery by category(Recruitments, Wastage – Retirement; Death, Vacation of Post) ▪ In-Service Trainings		Quarterly; Half-yearly/ Annually Monthly, Quarterly; Half-yearly; Annually

7.2. SUPPORT FOR M&E PROCESS FOR DIVISIONS AND PROGRAMS

The Centre for Health Information Management (CHIM) should provide the needed data set for the divisions and programs on monthly basis to assist the monitoring and evaluation process of the divisions and programs.

7.3. STAKEHOLDER ANALYSIS

There are several stakeholders collaborating with the GHS providing financial and technical support to the process of policy formulation, planning, and monitoring and evaluating performance. There is a second group of stakeholders who consume healthcare services and/or information for the improvement of personal and/or their community's health and then provide valuable feedback to the service.

Table 7.2 highlights key stake holders in the health sector indicating the roles they play.

TABLE 5. STAKE HOLDERS IN THE HEALTH SECTOR

Stakeholders	**Roles and responsibilities**
Local community	Demand accountability, assist in community surveillance, community mobilization and other infrastructure support, etc.
District Assembly	Policy formulation, development planning and financial, infrastructure and equipment support
Ghana Health Service Council	Policy formulation and coordination. Provides authorization and guidance for the Director General of the Service
Regional Coordinating Council	Policy formulation, coordination of planning and development, resource mobilization
Ministries, Departments and Agencies in the health sector	Policy formulation and coordination & collaboration
Parliament/ Select Committee on Health	Supports planning, monitoring and evaluation of health programs, resource mobilization & allocation, advocacy
Political Parties	Policy formulation and monitoring Governments performance, advocacy, lobbying

Development Partners	Provides technical assistance, financial support
Civil Societies	Advocacy for health, community and resource mobilization community empowerment through education, demand accountability
Academia	Support research, training, policy formulation and technical assistance
Faith based organization	Support service delivery,
Private providers	Support service delivery

7.4. M&E CONDITIONS AND CAPACITIES

7.4.1. CAPACITY FOR MONITORING AND EVALUATION

Traditionally, the GHS utilizes medium term plans (POW) drawn from the HSMTDP. Annual POW is also developed to guide the activities of the Service for each year. GHS has personnel at all levels involved in the M&E process. However, the workload especially at sub-district, district and regional levels overwhelms staff strength and capacities at these levels. The National level has an M&E unit within the PPMED but no similar arrangement exists to support M&E activities at the Regional and District levels. The M&E roles at these levels tend to form part of the shared responsibility of the District and Regional Health Management Teams.

At the Regional level and within the Headquarters Divisions, staff have varying competency in M&E. The Global Fund Programmes have a relatively more elaborate set-up, which is well resourced for M&E.

Training and capacity development in data management and other computer programmes, M&E and report writing skills for M&E officers is therefore very relevant in all the Divisions. This would necessitate building capacity for M&E functions within the Regional Health Management Team. Capacity should also be built within the District Health Management Teams to carry out M&E activities.

Following on these, financial support will be required to resource the PPMED to undertake regional monitoring and to equip the national, regional and all districts with much needed ICT infrastructure, internet access and anti-virus software to facilitate the full adoption of the DHIMS 2 software.

7.4.2. TECHNICAL ASSISTANCE

GHS has completed the process of adopting the DHIMS 2 as the main software for data collection and analysis; however some technical assistance is still required to address post implementation challenges. There has been some contact with the University of Oslo to this effect and as a result a memorandum of understanding has been signed to facilitate the provision of Technical Assistance to continue the further improvement in DHIMS2 after it has been rolled out.

GHS will also require some technical assistance to evaluate the HSMTDP implementation at the end of 2013 to determine the scope of the Service activities and how these have contributed to the overall reduction in morbidity and mortality in the Ghanaian population.

7.4.3. STORAGE OF INFORMATION

The kind of service data and information generated and stored varies among the different levels within the Service. The category of M&E information that is stored also depends on the level of the management centre managing the data as well as the sub-level at which the specific activity generating the data is being carried out. This in turn is dictated by the information and data requirements at that particular level.

Although the data collection process is well developed within the GHS, there is a challenge in using this data to adequately inform management decisions, especially at the facility and district level. It is therefore imperative that the Service intensify its efforts in creating the environment and platform to strengthen the use of data to make evidence-based decisions. Training on the use of data to generate information for evidence based decision making should be prioritized.

The type and category of Service information stored at the National level is determined by a set of sector-wide indicators. These sector-wide indicators also enable relevant information gathered from all budget management centers (BMC) to be transmitted to the district, regional, and national levels monthly. However, the mode of data transmission varies with internet accessibility and availability at the various levels. Some of the data are delivered via the internet and others by courier. This manual collection and

transmission of data by courier has adversely affected data completeness, quality, and timeliness. It is hoped that the current HSMTDP will adequately address these challenges. The development and deployment of web-based software (DHIMS2) that would replace the existing data collecting software will enable collection of real-time data from the districts and improve timeliness.

7.4.4. EQUIPMENT AND LOGISTICS

To gain from the efficiency of real-time data collection requires that computers be placed within the consulting rooms of hospitals, and mobile devices like phones set-up within the smaller health facilities and for other public health programmes. These systems will require internet access for efficient data transmission. Currently there is dire need for computers and accessories at all levels but more especially at the facilities and District Health Directorates. For most districts there is a reliance largely on internet access via USB modems available on various mobile phone networks, raising issues with connectivity and reliability.

Following these, there is recognition of the need to support facilities and districts with computers and reliable internet access. There will also be the need to support and resource the ICT department to maintain the existing computers and accessories in the Service. Additionally the GHS needs to make investments in infrastructure and personnel to strengthen the capacity at its Center for Health Information Management (CHIM) to be able to maintain and run the proposed web-based data collection, analysis and reporting tool.

The M&E unit of the PPMED should be provided with dedicated funds and vehicles to facilitate regular field and technical support visits to all management centers that will need their services.

8. THE MONITORING AND EVALUATION PROCESS

8.1 COLLECTION, COLLATION AND ANALYSIS OF DATA

GHS should collect and collate routine data monthly from the districts. Send Reports from CHPS zones, health centers and hospitals as well as private facilities to the districts monthly using the prescribed reporting forms. Ghana Health Service has been given the mandate by the Ministry of Health to collect health service data from all facilities in the district, including Private and CHAG facilities. This can be sent as a hard copy or electronic using the DHIMS2. District validation teams should validate the reports before it is entered into the DHIMS2. The Districts should then enter the data into DHIMS2 to make it available to the Regional level. Each unit at the district level should be responsible for entering data from their service area. District Health Information Officers will enter the data that do not have officers assigned. The Regional reports from their respective districts will be available to the National Level through the DHIMS2.

To augment the routine data collected, the health sector will work with some of its stakeholders to undertake joint periodic health surveys such as the Demographic and Household Survey (DHS) and the Multi-indicator Cluster Survey (MICS). These surveys will generate additional indicators for monitoring and evaluation.

8.2. REVIEW PROCESS IN THE GHANA HEALTH SERVICE

The annual review process should begin at the level of the Budget and Management Centres. The process should involve an internal review of the BMC performance based on their annual plans and specific activities and achievements. These should be reviewed against the targets set over the review period. Review of performance should include trend analyses of performance over a minimum period of three years. Five years trend analysis will be preferred.

The first level of data collation and analysis should be completed at the District level. This provides a synthesis of all reports from the sub-districts, district hospitals and District Health Directorates, CHAG facilities, NGOs and private health facilities. These reports must include the various activities undertaken in collaboration with the District Assemblies and other decentralized agencies. The District Performance Review should involve all stakeholders in health working at the district level. This forum affords each stakeholder including the private health care providers the opportunity to present an account of their

performance and to highlight their key challenges for discussion. This review should culminate in a final district report based on the guidelines provided by the PPMED which should be submitted to the regional level.

The second level of collation and analysis should take place at the Regional level. This must be preceded by the regional performance hearing sessions, involving all District Health Directorates, district and regional hospitals, training institutions, CHAG facilities, Regional Health Directorates and other stakeholders at the regional level. National teams attending these reviews should include health information officers, policy-makers, clinical and public health specialists, health and development partners These reviews should culminate in a final regional report based on the guidelines provided by the PPMED. The report should be sent to the National level PPMED

At the National level, the first Senior Managers' Meeting (SMM 1) should be organized within the first quarter of the succeeding year and focused to reviewing Regional and National Performances through a series of regional and divisional presentations. This will form the basis for preparing the GHS Annual Report. The National level Performance Sessions should be attended by the GHS Council.

The GHS will make presentations on the performance of the year-under-review at the MoH- Inter-agency review and at the Health Summit. There will be an annual independent performance review of the entire Health Sector by an independent team of consultants. This independent review should also include a review of the performance of the M&E System of the GHS.

8.3. USE OF DATA FOR DECISION-MAKING

Good data is essential in planning and ensures proper accountability and reporting. Quality data forms the essence and foundation of decision-making process and it is imperative for all decision-makers to make use of the relevant data at all levels. However, data utilization in the Service is often hindered by weak organizational structures and a myriad of challenges both inherent and external. This includes a lack of data utilization mores among decision-makers, low motivation, inadequate trained staff, lack of technical skills and technology, particularly, at the lower levels, and poorly-funded M&E activities.

.The Data Utilization Manual developed by the PPMED-GHS will be used to provide the necessary skills for decision-makers to enable optimal data use at all levels.

8.4. PLAN FOR EVALUTAION

Evaluation is at the heart of the decision-making process and determines the value of an intervention or programme, to inform its adoption, rejection or revision. Evaluation makes use of assessment data in addition to many other data sources and measures how well activities have met expected objectives. The evaluation process provides valuable information for management and draws lessons for future actions.

At the end of the implementation of the HSMDP, the Ghana Health Service together with other agencies of the Ministry of Health will be involved at all levels to evaluate the performance of the sector.

The following steps can be used at all levels in the service to evaluate programme implementation within the GHS

- Identify and engage stakeholders
- Involve partners to work on the Logic Model for the evaluation
- Define the outcome objectives and impact objectives
- Gather credible data/evidence
- Organize and interpret results and draw conclusions
- Prepare and disseminate reports

The reports received from all beneficiaries and districts should be prepared, analyzed and a progress report produced and disseminated. The information generated will be used for re-planning and advocacy and also shared with all beneficiaries, districts and other partners.

9. QUALITY ASSURANCE

9.1. Ensuring Data Quality

Data veracity, put in a nutshell, its completeness, consistency, accuracy, integrity is pivotal to effective planning, implementation and improvement of health services as well as programme evaluation. Authentic data informs enhanced patient care, better use of health insurance, more appropriate and better defined priorities of the service.

Poor data quality is common in the health sector. The trail of upward reporting to each level is beset with an array of data quality issues that range from inadequate documentation and storage, poor analysis and improper interpretation, poor presentation and non dissemination in many cases. The lack of integrity of data generated from the lower levels may well be in part the direct consequence of its low utilization in decision-making in the service. These have been identified by a number of health sector assessments in Ghana[1]. It becomes tempting to blame the original source of data for any and all errors that appear downstream. However, any efforts to improve data quality will only be meaningful when these are part of an overarching quality culture that must emanate from the apex of an organization.[2]

Currently, existing GHS data quality audit activities conducted have been collected into a useful data repository and these have been used to develop tools and training modules to ensure correct and consistent data at every level in the Service. These activities are among the nascent scheme the GHS is effecting to build a rigorous data quality assurance system within the Service.

9.2. Improving the quality of data collection

Enhancing data quality and integrity begins with standardizing the source documents designed for data collection and then effectively integrating the myriad of disparate data sources. This also requires the regular review of source documents by schedule and providing training on how to use the data collection tools.

A regular schedule will be prepared to review and update the standardized data collection tools. Subsequent training using the data collection tools will also be standardized with

[1] Agana et al., 2009; Institutional Care Division (ICD), Rapid Assessment Report on Clinical Information, 2007; and Data Quality Audit for Malaria in Ghana by JSI 2009)

compulsory participation of all service providers and supervisors. These activities will be further augmented by institutions through monthly data validation sessions at all service delivery points before data reports are signed, stamped and forwarded by the officer designated for the purpose.

Where data is submitted upwards and to succeeding levels in hard copy, a hard copy of the original will be kept in the submitting institution's file. This will be well-labelled (dated, stamped, named, batched) and stored in an orderly fashion for easy retrieval. Where the data are transmitted electronically using external storage devices (pen/flash drive, CD-Rom, external hard drive) the copy of the original should be filed properly in clearly identifiable folders with regular backup. Where data is transmitted by email, the original email should not be deleted.

9.3. Standard Operating Procedures

GHS has developed a set of Standard Operating Procedures (SOPs) to guide data management. These SOPs for improving data quality are a set of written instructions that document the routine or repetitive activities to be followed by the various levels data collection and aggregation in the GHS. It will detail regularly recurring work processes that are to be conducted for data collection, data processing, use and transmission. The SOP will also facilitate the way activities are performed to enhance compliance and maintain consistency with technical and quality guidelines for quality data. Training will be organized at all levels in the service in the use of the SOPs for data management.

9.4. Improving Timeliness, Completeness and Accuracy of Transmitted data

Data must be collected, collated, analyzed and delivered within an agreed period. To ensure adherence to deadlines, a data collation and validation team should be responsible for data management and submission at each level.

Timeline for data submission within the service is as shown in the Table below

TABLE 6: TIMELINES FOR DATASUBMISSION BY LEVEL

Reporting Level	Receiving Level	Frequency	Deadline
Facilities/Sub districts to Districts	District	monthly	5th of the following month
District to Regions	Regions	monthly	15th of the following month

Regions to GHS Headquarters	GHS Headquarters	monthly	25th of the following month
GHS Headquarters to MOH	MOH	Quarterly	Two month after the quarter

Transmitted data must be complete. The reported data must include inputs from all reporting units, all required fields must have valid data, and the document must be signed stamped and dated by the officer responsible.
All data submitted must be consistent with what is on the original file at all times. The deployment of the internet based DHIMS2 will contribute significantly to improving the timeliness of reporting...

9.5. Data Quality Audit

GHS has initiated its process of periodic audit of reported data at point of data collection or aggregation. The audit teams must be made up of personnel from a higher level (e.g. national to regional; regional to district, district to facilities). These teams should make scheduled visits to data aggregation levels or facilities and audit their reported data. This exercise will provide the platform for a more robust and rigorous data management system that would identify strengths and gaps in data.

This exercise will also include a data verification process to track published data to the highest level while checking on all the dimensions of data quality (consistency, accuracy, completeness and timeliness). The data verification process should include the examination of all source documents to examine the various dimensions of data quality.

In addition the data quality audit process will be a capacity-building activity and will offer technical assistance to develop action plans that will address the gaps identified in the data management system. The provision of technical assistance to improve the generation of quality data at the level of data collection has the added advantage to enhance use of data in decision-making.

9.6. Feedback Processes

Immediate feedback should consist of a quick eyeballing looking at completeness (all relevant fields completed, availability of signature, date and stamp), timeliness and

accuracy of the report and submit a quick report to the sender. This immediate feedback to the sender offers the opportunity for quick updates for completeness and correction of minor errors and it serves as a capacity building activity.

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Written feedback should be based on more in-depth analysis of data from various sources. This technique of feedback unearths data inconsistencies, enables analysis and comparison of trends and performance with peers. The process should look at the standards, the performance of the various districts and facilities and the gaps that are to be filled.

A technical data quality team preparing the feedback reports is to pay attention to quality issues including data completeness and correctness

Regular feedback on all reports submitted will be encouraged at performance review meetings. These should give opportunity to carry out peer comparison, receive explanations and opportunities for learning.

9.7. Documentation

Any feedback given, whether in relation to completeness, accuracy, timeliness or consistency should be filed. In addition, any suggestions made to guide the resolution of observed gaps in the report should be documented and filed.

Data already submitted should only be changed when there is enough documentation on the reasons for change and the updates transmitted to all levels at the same time. This documentation should be appropriately filed.

10. REPORTS

10.1. REPORTING MILESTONES

All Districts, regions and divisions are expected to provide quarterly updates on their routine activities and any new initiatives planned for the year. The half-year and annual reports will also be expected to be produced by all Divisions, Regions, Districts and Hospitals.

10.2. PROGRAMMES/PROJECT MONITORING

Regions and Divisions implementing programs and/or projects are to provide quarterly updates using the project/programs monitoring matrix. The required information includes budget execution regarding the project or program, and the status of implementation.

10.3. FINANCIAL REPORTS

All BMCs in the GHS are to submit monthly and quarterly updates on their revenue and expenditure depending on the type of financial data and the reporting level - as indicated in the table below. Receipts from donors are reported as schedules in the consolidated financial reports for the period under review.

TABLE: FINANCIAL REPORTING FRAMEWORK - CONSOLIDATED FINANCIAL REPORT

Type of Report	Recipients	Frequency	Deadline
Consolidated GOG Expenditure Budget status Report	Partners, MOFEP, CAGD	quarterly / annually	3 months after period
Consolidate Donor Expenditure Budget status Report	"	quarterly / annually	3 months after period
Consolidated IGF Expenditure Budget Status Report	"	quarterly / annually	3 months after period
Consolidated IGF Revenue Budget Status Report	"	quarterly / annually	3 months after period

Consolidated Balance Sheet	"	quarterly / annually	3 months after period
Consolidated Revenue and Expenditure Statement	"	quarterly / annually	3 months after period
Cash Flow Statement	"	quarterly / annually	3 months after period
Consolidated Programme Financial Reports	"	quarterly / annually	3 months after period

10.4. FINANCIAL AUDIT REPORTS

10.5. GHANA HEALTH SERVICE REPORT

An annual progress report indicating the extent to which goals and objective of the POW are being achieved should be prepared every year by Districts, Regions, Programmes, Divisions and National. The report will rely on the various reviews carried out in the service. Half year reports should also be written by the various levels to track the performance against set targets.

11. GOALS AND OBJECTIVES OF THE MONITORING AND EVALUATION SYSTEM WITHIN THE GHANA HEALTH SERVICE

The overall goal of the Ghana Health Service M&E system is to support the Ghana Health Service to achieve the impact and outcomes articulated in the Health Sector Medium Term Development Plan, as well as the programme works developed from it. This will be done by collecting, analyzing and disseminating data to:

1. Enhance understanding the of the trends in the various service outcomes
2. Monitor progress with implementation of planned activities and interventions.
3. Assess the effectiveness of the health interventions at national and sub-national levels.
4. Monitor funds provided for service activities
    1. Inflows
    2. Expenditure
    3. Budget
5. Identify gaps and emerging needs.
6. Guide the selection and application of solutions to address identified gaps and emerging needs.
7. Ensure accountability to stakeholders including.

11.1. STRATEGIES TO ADDRESS MONITORING AND EVALUATION GAPS

Work force gap

a. Build and continue to improve human capacity for M&E at all levels
b. Increase human resource for M&E activities
c. Put in place continuous in-service training in M&E for all staff

1. Resource Management Gap

a. Develop and ensure adequate deployment of data collection tools to improve data management
b. Revise and update data collection tools to improve data quality
c. Revise and align inputs, outputs and outcomes within sector PoW
d. Encourage joint target-setting
e. Collate, harmonize and document existing M&E processes
f. Expedite documentation and circulation of Standard Operating Procedures (SOP)
g. Improve and support ICT infrastructure base at all levels

2. Leadership and Governance gap

a. Make M&E a priority in PoW

b. Advocate to increase budget allocation to create a more robust M&E system both internally and externally

c. Establish two-way feedback mechanisms to identify gaps requiring revision, greater coordination and alignment of process indicators.

12. M&E ACTIVITIES, TIMELINES AND BUDGET

TABLE 8: M&E Activities and Timelines

Description of Major activities	Key Deliverables	Timeframe				Comments
		2010	2011	2012	2013	
1.RESOURCE MANAGEMENT GAP						
a. Improve Data Management						
Development and Deployment of DHIMS2(Web based data collection software)	DHIMS2 Developed and deployed with URL made available to all data managers		X	X		
District and Regional Data Validation meetings	District Regional Data validation teams meetings held in all districts and regions		X	X	X	Organized Monthly – National teams will visit few regional validation meetings
Print and distribute primary data capture forms/registers to both private and public health facilities in the Districts.	Registers and data capture tools available at all facilities/districts in Ghana both private and public		X	X	X	
Joint Monitoring(Managerial) Visits to Regions and District	Joint monitoring visits held.		X	X	X	Will be done twice in a year

Technical Monitoring visits to Regions and Districts	Technical Monitoring visits held.		X	X	X	Will be done twice in a year
b. Improve ICT infrastructure						
Procure office/ICT equipment (desk top, lap tops, printers scanners, accessories, smart phones and internet modems	ICT equipment procured for regions and CHIM (Servers, computers, printers smartphones and USB modems.		X	X	X	
Host and maintain Server for DHIMS2	Server for DHIMS hosted and accessible for data entry, analysis and reporting.		X	X	X	
1. HEALTH WORKFORCE GAP						
a. Develop Human Capacity for M&E						
Train National ,Regional and District Teams on Monitoring and Evaluation	National, Regional and District Teams trained in Monitoring an evaluation		X	X	X	Will aim to build capacity over the four years of the HSMTDP implementation
Train National, Regional and District Teams on Data Quality Audit	National, Regional and District Teams trained in data quality audit		X	X	X	
Train District and Regional Teams on SOPs on data management and Data Utilization.	Regional and District Teams trained		x	x	x	

Develop pre-service training modules for health service data management for health training schools	Pre-service modules developed in use in the health training institutions		X	X	X	
2. LEADERSHIP AND GOVERNANCE GAP						
1. Improve the use of Data for decision making						
Annual Regional performance reviews	District and Regional Annual reviews held		X	X	X	
Senior Managers Meetings	Senior Managers Meetings Held		X	X	X	
GHS Headquarters Annual review meeting	GHS Headquarters annual review meeting held		X	X	X	

TABLE 9: BUDGET FOR THE MONITORING AND EVALUATION PLAN

Number	Programme Description	Description of Item or activity	2011		2012		2013		Total Cost $
			Detail Descriptions	Cost $	Detail Descriptions	Cost $	Detail Descriptions	Cost $	
A	**Improve Data Management**								-
	Development and Deployment of DHIMS2 (Web based data collection software)	DHIMS2 Developed and deployed with URL made available to all data managers	Development of DHIMS2 and training	900,000	Training of managers on DHIMS2	460,000	Improvement in DHIMS2 software	80,000	1,440,000 -
	District and Regional Data Validation meetings	District Regional Data validation teams meetings held in all districts and regions	Organized Monthly – National teams will visit few regional validation meetings	120,000	Organized Monthly – National teams will visit few regional validation meetings	120,000	Organized Monthly – National teams will visit few regional validation meetings	120,000	360,000 -
	Print and distribute primary data capture forms/registers to both private and public health facilities in the Districts.	Registers and data capture tools available at all facilities/districts in Ghana both private and public	Printing of registers and data collection tools(once a year)	200,000	Printing of registers and data collection tools(once a year)	250,000	Printing of registers and data collection tools(once a year)	300,000	750,000 -
	Joint Monitoring(Managerial) Visits to Regions and District	Joint monitoring visits held.	Will be done twice in a year	100,000	Will be done twice in a year	100,000	Will be done twice in a year	100,000	300,000 -
	Technical Monitoring visits to Regions and Districts	Technical Monitoring visits held.	Will be done twice in a year	13,000	Will be done twice in a year	13,000	Will be done twice in a year	13,000	- 39,000
B	**Improve ICT infrastructure**								-

	Procure Office equipment (desk top, lap tops, printers scanners, accessories and internet modems	ICT equipment procured for regions and CHIM (Servers, computers, printers and USB modems.	Aim to equip all districts with ICT equipment	350,000	Aim to provide servers for all Regions and strengthen CHIM	1,000,000	New districts equipped	75,000	1,425,000
	Host and maintain Server for DHIMS2	Server for DHIMS hosted and accessible for data entry, analysis and reporting.	Payment will be annually	40,000	Payment will be annually	40,000	Payment will be annually	40,000	120,000
Workforce Gap									
	Develop Human Capacity for M&E								
	Train National, Regional and District Teams on Monitoring and Evaluation	National, Regional and District Teams trained in Monitoring an evaluation	Will aim to build capacity over the four years of the HSMTDP implementation	350,00	Will aim to build capacity over the four years of the HSMTDP implementation	200,000	Will aim to build capacity over the four years of the HSMTDP implementation	100,00	650,000
	Train National, Regional and District Teams on Data Quality Audit	National, Regional and District Teams trained in data quality audit	Training of Regional Teams to train district teams	350,000	Training of Regional Teams to train district teams	350,000	Training of new districts	120,000	670,000
	Train District and Regional Teams on SOPs on data management and Data Utilization.	Regional and District Teams trained	SOPs will be developed District/regional teams trained						
	Develop pre-service training modules for health service data management for health training schools	Pre-service modules developed in use in the health training institutions	Modules will be developed	15,000	Training of tutors of schools	250,000			265,000
Leadership And Governance Gap									-
	Improve the use of Data for decision making								-
	Annual Regional performance reviews	District and Regional Annual reviews held	Held once a year in all the Regions	800,000	Held once a year in all the Regions	850,000	Held once a year in all the Regions	900,000	2,550,000

	Senior Managers Meetings	Senior Managers Meetings Held	Held four times in the year	50,000		50,000		60,000	160,000
	GHS Headquarters Annual review meeting	GHS Headquarters annual review meeting held	Held once a year	4,000	Held once a year	4,000	Held once a year	5,000	13,000 -
	Half Year Review performance review meetings held at the Regional Level	Half year review meetings held	Held by all Regions once a year	500,000	Held by all Regions once a year	500,000	Held by all Regions once a year	600,000	1,600,000
Improving Data Quality									
	Standard Operation Procedure Manual Development	Develop SOP data collection	Technical meetings to develop SOP, Stakeholder interactions on document	62,000					
		Train staff in the use of SOP	Regional TOT Training on SOPs	10,000	District trainings on SOPS	120,000			130,000
		Review SOP Document annually			Review of SOP	20,000	Review and reprinting	150,000	170,000
	Data validation routines	Set up data validation team at each level of data management	Meeting with Regional Data validation Teams	13,000	Formation of District Data validation Teams	210,00			223,000
		Develop work plan for data validation	Technical meetings to develop data validation work plan	2,000					2,000
		Hold data validation meetings	Regional and National Data validation meetings held quarterly	76,000	Regional and National Data validation meetings held quarterly	80,000	Regional and National Data validation meetings held quarterly	85,000	241,000
	Data Transmission	Procure data transmission equipments e.g., external storage device, back-up	Procure modems for all districts	10,200					10,200

		system, modems, routers							
		Establish data transmission mechanism e.g. Internet connectivity for CHIM	Payment of bills once a year	3,000	Payment of bills once a year	3,000	Payment of bills once a year	3,000	9,000
	GRAND TOTAL			**3,968,0000**		**4,620,000**		**2,751,000**	**11,339,000**

APPENDIX 1.

INDICATORS TARGETS AND MILESTONES FOR MONITORING AND EVALUATION

INDICATOR	2010 Baseline	2011 Target	2012 Target	2013 Target	Data sources	Measurement	Monitoring Frequency	Responsibility
HO1 Bridge equity gaps in access to health care and nutrition services and ensure sustainable financing arrangements that protect the poor								
No. of functional CHPS zones		840	840	900	Routine Date-District/Regional Reports	Number of CHPS zones with CHOs offering home visits and other services (Home visit entails ANC, PNC, Immunization, Growth monitoring, Nutrition	Bi-annual Annual	DDHS/RDHS

INDICATOR	2010 Baseline	2011 Target	2012 Target	2013 Target	Data sources	Measurement	Monitoring Frequency	Responsibility
						counseling and Reproductive health service needs of the household.)		
Proportion of CHPS zones made functional.	30%	50%	60%	70%	Routine Data-District/Regional Reports	**Numerator:** Number of functional CHPS zones **Denominator**: Number of demarcated CHPS zones	Bi-annual/ Annual	DDHS/RDHS
Proportion of Total population living within functional CHPS zones	10.0%	18.0%	25%	50%		The population of the district who are served by community health officers under CHPS **Numerator**: The sum of all the population	Annual	DDHS/RDHS

INDICATOR	2010 Baseline	2011 Target	2012 Target	2013 Target	Data sources	Measurement	Monitoring Frequency	Responsibility
						in the catchment area of all the functional CHPS zones. **Denominator**: Total Population of the District		
Population to doctor ratio	11,500	10,500	9,700	9,500	Human Resource and Development Division Reports[i]	The ratio of the number of people to one public sector doctor **Numerator:** Total population **Denominator:** Number of doctors in the public sector	Annual	RDHS/Director Human Resource and Development Division
Population to medical assistants/phys	48,641	43,340	38,634	30,709	Human Resource and	The ratio of the number of people to one	Annual	Director Human RDHS/Resource and Development

INDICATOR	2010 Baseline	2011 Target	2012 Target	2013 Target	Data sources	Measurement	Monitoring Frequency	Responsibility
ician assistant ratio					Development Division Reports	public sector medical assistant/physician assistant **Numerator:** Total population Denominator: Number of medical assistants /physician assistant in the public sector		Division
Population to nurse (all categories) ratio	1:1,100	1:1,000	1:900	1:800	Human Resource and Development Division Reports	The ratio of the number of people to one public sector nurse (all categories) Numerator: Total Population. Denominator:	Annual	RDHS/Director Human Resource and Development Division

INDICATOR	2010 Baseline	2011 Target	2012 Target	2013 Target	Data sources	Measurement	Monitoring Frequency	Responsibility
						Total number of nurses in the Public Sector		
Population to midwives ratio	8,336	7,431	6,625	5,800	Human Resource and Development Division Reports	The ratio of the number of people to one midwife Numerator: Total Population. Denominator: Total number of midwives	Annual	RDHS/Director Human Resource and Development Division
Percentage of Under five years who are under weight presenting at facility and Outreach	11.32	9.98	8.64	7.3	District and Regional Health Services Reports	Percentage of children under 5 who were found to be underweight (weight for age below -2 Z score) facility and Outreach Numerator: Total number of Children found to be	Annual	Regional Directors of Health Services/DDHS

INDICATOR	2010 Baseline	2011 Target	2012 Target	2013 Target	Data sources	Measurement	Monitoring Frequency	Responsibility
						underweight(< -2 Z score) Denominator: All children under five years who were weighed from facility and Outreach		
Percentage of Under five years who are stunted.	22.64%	19.96%	17.28%	14.6%	Demographic and Health Survey[ii], Multi-indicator cluster surveys, Nutritional Surveys	Percentage of children who were found to be stunted (height for age below -2 Z score) from survey. Numerator: Number of children under five years with height for age below -2 Z score Denominator : Total number of children under five surveyed (Height and	Annual	Regional Directors of Health Services/DDHS

INDICATOR	2010 Baseline	2011 Target	2012 Target	2013 Target	Data sources	Measurement	Monitoring Frequency	Responsibility
						age measured for each of them)		
Percentage of OPD visits by insured clients	58%	60%	75%	85%	Routine Service Data - CHIM	Percentage of patients (both new and old) seen at the OPD who are insured under the NHIS. **Numerator :** Patients (both new and old) seen at the OPD who are insured **Denominator :** Total number of patients(old and new seen at the OPD)	Bi-annual/ Annual	Regional Directors of Health Services/DDHS
Outpatient visits per capita	0.98	0.984	0.988	0.992	Routine Service Data - CHIM	Ratio of the total number of patients seen (both old and new) to the total population. **Numerator:**	Bi-annual/ Annual	Regional Directors of Health Services/DDHS

INDICATOR	2010 Baseline	2011 Target	2012 Target	2013 Target	Data sources	Measurement	Monitoring Frequency	Responsibility
						Total number of patients seen at OPD(both new and old) **Denominator :** Total population		
Percentage of OPD attendances seen and treated by the CHOs.	4.0%	6.05%	15.0%	20.0%	District and Regional Health Services Reports	Percentage of the total OPD attendances that were seen and treated by CHOs. **Numerator:** Total number of OPD clients seen by CHOs **Denominator:** Total number of clients seen at OPD.	Bi-annual/ Annual	Regional Directors of Health Services/DDHS

INDICATOR	2010 Baseline	2011 Target	2012 Target	2013 Target	Data sources	Measurement	Monitoring Frequency	Responsibility
HO2: *improve governance and strengthen efficiency in health service delivery, including medical emergencies*								
Proportion of vehicles from 0-5 years	58%	70%	70%	70%	HASS Reports	Ratio of vehicles which are between 0-5yrs to the total vehicles in the pool. **Numerator:** Number of vehicles between 0-5years **Denominator:** Total number of vehicles in fleet	Annual	RDHS/Deputy Director Transport HASS
Proportion of motorbikes 0-3	70%	70%	70%	70%	HASS Reports	Ratio of motorbikes 0-3 yrs to the	Annual	RDHS/Deputy Director Transport

INDICATOR	2010 Baseline	2011 Target	2012 Target	2013 Target	Data sources	Measurement	Monitoring Frequency	Responsibility
years old						total motorbikes in the pool **Numerator:** Number of motorbikes between 0-3years **Denominator:** Total number of motorbikes in fleet		HASS
Revenue Mobilization								
IGF					Financial Reports			
% of IGF received from clients who are insured					Facility Drug summary Cash Book, Inpatient and outpatient billed revenue ledger	Proportion of IGF out of the total IGF that came from insured clients **Numerator:** IGF from insured clients **Denominator:** Total IGF received	Monthly, Quarterly &Yearly reports	RDHS/Director Finance

INDICATOR	2010 Baseline	2011 Target	2012 Target	2013 Target	Data sources	Measurement	Monitoring Frequency	Responsibility
						(insured and non- insured)		
% of IGF generated from Drugs					Facility summary Cash Book, Inpatient & Outpatient revenue collection books	Proportion of Total IGF that came from the sale of drugs(insured and insured) **Numerator:** Total IGF obtained from drugs(insured and non-insured) **Denominator:** Total IGF received(insured and non-insured)	Monthly, Quarterly &Yearly reports	RDHS/Director Finance
Proportion of District Assembly Common Fund received to the total district Service receipts(GOG and SBS)					Programme activity ledger	The amount of money received from the District Assembly common fund with relations to the total service vote (GOG and SBS) received	Monthly, Quarterly, half yearly & annual reports	RDHS/Director Finance

INDICATOR	2010 Baseline	2011 Target	2012 Target	2013 Target	Data sources	Measurement	Monitoring Frequency	Responsibility
						for the period. **Numerator :** Total amount of money received from District Assembly Common Fund **Denominator:** Total service receipts for the period(GOG and SBS)		
Other Sources E.g. Sponsorship & Donations					E.g. Donations. Facility Cash Books if cash and also value material items & capture in the cash book	Total of all the funds obtained from other sources(District Assembly, NGOs etc)	Monthly, Quarterly &Yearly reports	RDHS/Director Finance
Receipts								

INDICATOR	**2010 Baseline**	**2011 Target**	**2012 Target**	**2013 Target**	**Data sources**	**Measurement**	**Monitoring Frequency**	**Responsibility**
Item 1: Personnel Emolument					CAGD Mechanized Payroll	Total amount received for compensation of staff	Monthly validation of mechanized pay voucher	RDHS/Director Finance
Item 2: Administration-Percentage of item 2 received					CAGD spending Warrant	% of total Item 2 released to total item 2 vote **Numerator:** Total Item 2 received. **Denominator:** Approved Total Item 2 vote	Monthly, Quarterly & annual report	RDHS/Director Finance
Item 3: Service-Percentage of service funds released					CAGD spending Warrant, MOH allocation sheet	% of service funds released to Service vote. **Numerator :** Total service funds received **Denominator** : Approved Total service	Monthly, Quarterly & annual report	RDHS/Director Finance

INDICATOR	2010 Baseline	2011 Target	2012 Target	2013 Target	Data sources	Measurement	Monitoring Frequency	Responsibility
						vote		
Item 4: Investment- Percentage of projects completed					CAGD spending Warrant, MOH allocation sheet	% of projects completed and work certificate presented and paid for. **Numerator:** Total number of projects completed and paid for. **Denominator:** Total number of ongoing projects.	Monthly, Quarterly & annual report	RDHS/Director Finance
Sector Budget Support (SBS)- Percentage of SBS released to total funds received					CAGD spending Warrant, MOH allocation sheet	% of Inflow from SBS in relation to total inflow **Numerator:** Total SBS received. **Denominator:** Total inflow of funds for services(	Monthly, Quarterly & annual report	RDHS/Director Finance

INDICATOR	2010 Baseline	2011 Target	2012 Target	2013 Target	Data sources	Measurement	Monitoring Frequency	Responsibility
						GOG Services(Item 3) + SBS)		
Global Fund(Malaria/TB/HIV)-					Programme activity ledger	Check the time frame of receiving funds and implementation of the programme & available funds	Monthly, Quarterly & annual report	RDHS/Director Finance
Expenditure								
Proportion of Expenditure on drugs					Expenditure Budget Ledger	% of expenditure on drugs in relation to total expenditure **Numerator :** Expenditure on drugs **Denominator:** Total expenditure service and drugs)	Quarterly/ Half yearly & Annual report/validation	RDHS/Director Finance

INDICATOR	**2010 Baseline**	**2011 Target**	**2012 Target**	**2013 Target**	**Data sources**	**Measurement**	**Monitoring Frequency**	**Responsibility**
Percentage of Non-Drugs-consumables to total expenditure					Expenditure Budget Ledger	% of expenditure on non-drug consumables to total expenditure **Numerator :** Expenditure on non drug consumables **Denominator:** Total expenditure	Quarterly /Half yearly & Annual report/validation	RDHS/Director Finance
Item 1: Personal Emoluments					CAGD Pay Vouchers	% of total expenditure for item 1 to total budget on compensation. **Numerator:** Total expenditure for item 1 **Denominator:** Total budget for item 1	Monthly pay vouchers	RDHS/Director Finance

INDICATOR	2010 Baseline	2011 Target	2012 Target	2013 Target	Data sources	Measurement	Monitoring Frequency	Responsibility
Item 2: Administration Expenses					Expenditure Budget Ledger, CAGD Treasury Jacket	% of total expenditure for item 2 to total budget for item 2 **Numerator:** Total expenditure for item 2 **Denominator:** Total budget for item 2	Quarterly /Half yearly & Annual report/validation	RDHS/Director Finance
Item 3: Service Expenses					Expenditure Budget Ledger	Total expenditure for item 3 compared with total budget for item 3 % of total expenditure for item 3 to total budget on item 3. **Numerator:** Total expenditure for item 3 **Denominator:**	Quarterly/ Half yearly & Annual report/validation	RDHS/Director Finance

INDICATOR	**2010 Baseline**	**2011 Target**	**2012 Target**	**2013 Target**	**Data sources**	**Measurement**	**Monitoring Frequency**	**Responsibility**
						Total budget for item 3		
Item 4: Investment Expenses					Approved estimate	Find out % of completion and work certificate	Quarterly/ Half yearly & Annual report/validation	RDHS/Director Finance
Sector Budget Support (SBS)					Expenditure Budget Ledger	Compare total expenditure with budget For SBS. **Numerator:** Total expenditure for SBS **Denominator:** Total budget for SBS	Quarterly /Half yearly & Annual report/validation	RDHS/Director Finance
HO3: *Improve access to quality maternal, neonatal, child and adolescent health*								

INDICATOR	2010 Baseline	2011 Target	2012 Target	2013 Target	Data sources	Measurement	Monitoring Frequency	Responsibility
services.								
ANC Coverage	90%	91%	95%	98%	Routine Service Data - DHIMS	The number of pregnant women who attended ANC compared to the expected pregnancies for the year Numerator: Number of antenatal registrants in the year. Denominator: Number of expected pregnancies (estimated as 4% of the population)	Quarterly/ Bi-annual/ Annual	DDHS/RDHS/Director FHD
Percentage of ANC clients making at least 4 visits.	64.9%	74.6(74.5%)	80.1%	85.7%	Routine Service Data – DHIMS	Percentage of ANC registrants making at least four ANC visits. **Numerator:** Number of registrants	Quarterly/ Bi-annual/ Annual	DDHS/RDHS/Director FHD

INDICATOR	2010 Baseline	2011 Target	2012 Target	2013 Target	Data sources	Measurement	Monitoring Frequency	Responsibility
						who are making at least 4 ANC visits. **Denominator:** Number of antenatal registrants in the year.		
Tetanus Toxoid 2coverage rate	77.5%	78.0	80%	85%	Routine Service Data - DHIMS	Percentage of pregnant women receiving 2nd Tetanus Toxoid immunization during the year. **Numerator:** Number of pregnant women receiving 2 doses of Tetanus Toxoid **Denominator:** Expected pregnancies for the period	Quarterly/ Bi-annual/ Annual	DDHS/RDHS/Director FHD

INDICATOR	2010 Baseline	2011 Target	2012 Target	2013 Target	Data sources	Measurement	Monitoring Frequency	Responsibility
Skilled delivery coverage	44.6%	50.3	55.6	60.2	Routine Service Data - DHIMS–	Percentage of deliveries conducted by a skilled provider **Numerator:** Number of deliveries supervised by doctors or nurses in the year **Denominator:** Number of expected pregnancies (estimated as 4% of the population)	Quarterly/ Bi-annual/ Annual	DDHS/RDHS/Director FHD
% TBA deliveries	30.0%	25.0%	20.%%	15.0%	Routine Service Data - DHIMS	Percentage of deliveries conducted by trained Traditional Birth Attendants. **Numerator:** Number of deliveries	Quarterly/ Bi-annual/ Annual	DDHS/RDHS/Director FHD

INDICATOR	2010 Baseline	2011 Target	2012 Target	2013 Target	Data sources	Measurement	Monitoring Frequency	Responsibility
						conducted by trained traditional birth attendants in the year. **Denominator**: Total deliveries (skilled deliveries + TBA deliveries.		
Institutional maternal mortality ratio (per 100,000)	166	150	120	100	Routine Service Data - DHIMS	Number of maternal deaths for every 100,000 live births during the year. **Numerator:** Institutional Maternal deaths in a year multiplied by 100,000. **Denominator:** Total number of live births in	Quarterly/ Bi-annual/ Annual	DDHS/RDHS/Director FHD

INDICATOR	2010 Baseline	2011 Target	2012 Target	2013 Target	Data sources	Measurement	Monitoring Frequency	Responsibility
						the year.		
Proportion of institutional maternal deaths audited	66.2	100	100	100	Routine Service Data - DHIMS	Proportion of maternal deaths audited. Numerator: Number of maternal deaths audited during the period. Denominator: Total number of maternal deaths recorded during the period.	Quarterly/ Bi-annual/ Annual	
Proportion of still births to total deliveries	2%	1.9%	1.8%	1.5%	Routine Service Data - DHIMS	Proportion of still births out of the total number of births recorded. Numerator: Total number of still births	Quarterly/ Bi-annual/ Annual	DDHS/RDHS/Director FHD

INDICATOR	2010 Baseline	2011 Target	2012 Target	2013 Target	Data sources	Measurement	Monitoring Frequency	Responsibility
						recorded (Facility and trained TBAs stillbirths) during the period. Denominator: Total number of births (live and still) in the year.		
PNC registrants coverage	59.6%	65%	78%	82%	Routine Service Data - DHIMS	Proportion of women receiving at least one postnatal care after delivery. Numerator: Number of postnatal registrants making at least one visit Denominator: Number of expected deliveries	Quarterly/ Bi-annual/ Annual	DDHS/RDHS/Director FHD

INDICATOR	2010 Baseline	2011 Target	2012 Target	2013 Target	Data sources	Measurement	Monitoring Frequency	Responsibility
						(estimated as 4% of the population)		
% of WIFA accepting modern family planning methods	34.7%	35.6%	38%	40%	Routine Service Data - DHIMS	Proportion of women in the fertile age group who receive family planning services during the year. Numerator: Number of women in the fertility age-group (15-49 years) accepting family planning services during the year. Denominator: Number of women in the fertility age	Quarterly/ Bi-annual/ Annual	DDHS/RDHS/Director FHD

INDICATOR	2010 Baseline	2011 Target	2012 Target	2013 Target	Data sources	Measurement	Monitoring Frequency	Responsibility
						group (WIFA). WIFA is estimated as 24% of the population.		
Total Couple Years of Protection (CYP) SHORT TERM LONG TERM	**1,056,715.4** 320,399		1,300,000 360,000	1,400,000 420,000	Routine Service Data - DHIMS	The total estimated number of couples protected by modern contraceptives in a year The total number of contraceptives provided multiplied by the CYP factor	Annual	DDHS/RDHS/Director FHD
Institutional infants mortality rate	1%	1.0%	0.8%	0.8%	Routine Service Data - DHIMS	Proportion of deaths under one year of age out of the total number live births recorded in health	Quarterly/ Bi-annual/ Annual	DDHS/RDHS/Director FHD

INDICATOR	2010 Baseline	2011 Target	2012 Target	2013 Target	Data sources	Measurement	Monitoring Frequency	Responsibility
						facilities. Numerator: Number of children under 1 year old dying in health facilities in the year. Multiplied by 1,000 Denominator: Total number live births in the year		
Institutional under five mortality rate					Routine Service Data - DHIMS	Proportion of deaths under five years of age out of the total number of live births recorded in health facilities. Numerator: Number of children under 5 years old dying in health	Quarterly/ Bi-annual/ Annual	DDHS/RDHS/Director FHD

INDICATOR	2010 Baseline	2011 Target	2012 Target	2013 Target	Data sources	Measurement	Monitoring Frequency	Responsibility
						facilities in the year multiplied by 1,000 Denominator: Total number of live births occurring in health facilities.		
% of children immunized by age 1 -BCG	95	95	95	98	Routine Service Data - DHIMS	Proportion of children under one year receiving BCG vaccine during the year. Numerator: Number of children under 1 year old receiving the BCG vaccine in the year. Denominator: Number of children under 1 year old (estimated as	Quarterly/ Bi-annual/ Annual	DDHS/RDHS/Director FHD

INDICATOR	2010 Baseline	2011 Target	2012 Target	2013 Target	Data sources	Measurement	Monitoring Frequency	Responsibility
						4% of the population).		
% of children immunized by age 1 - Penta 1	93	95	95	98	Routine Service Data – DHIMS	Proportion of children under one year receiving Penta 1 vaccine during the year. Numerator: Number of children under 1 year old receiving the Penta 1 vaccine in the year. Denominator: Number of children under 1 year old (estimated as 4% of the population).	Quarterly/ Bi-annual/ Annual	DDHS/RDHS/Director FHD
% of children immunized by	90	90	90	95	Routine Service	Proportion of children under	Quarterly/ Bi-annual/	

INDICATOR	2010 Baseline	2011 Target	2012 Target	2013 Target	Data sources	Measurement	Monitoring Frequency	Responsibility
age 1 - Penta 3					Data - DHIMS	one year receiving Penta 3 vaccine during the year. Numerator: Number of children under 1 year old receiving the Penta 3 vaccine in the year. Denominator: Number of children under 1 year old (estimated as 4% of the population).	Annual	
% of children immunized by age 1 – Penvar 3	90	90	90	95	Routine Service Data - DHIMS	Proportion of children under one year receiving Conjugated pneumococcal vaccine 3rd	Quarterly/ Bi-annual/ Annual	

INDICATOR	2010 Baseline	2011 Target	2012 Target	2013 Target	Data sources	Measurement	Monitoring Frequency	Responsibility
						dose during the year. Numerator: Number of children under 1 year old receiving the conjugated pneumococcal 3rd dose vaccine in the year. Denominator: Number of children under 1 year old (estimated as 4% of the population).		
% of children immunized by age 1 – Rotarix 3			90	95	Routine Service Data - DHIMS	Proportion of children under one year receiving Rotarix 3 vaccine during the year.	Quarterly/ Bi-annual/ Annual	% of children immunized by age 1 - Penta 3

INDICATOR	2010 Baseline	2011 Target	2012 Target	2013 Target	Data sources	Measurement	Monitoring Frequency	Responsibility
						Numerator: Number of children under 1 year old receiving the Rotarix 3 vaccine in the year. Denominator: Number of children under 1 year old (estimated as 4% of the population).		
% of children immunized by age 1 -OPV1	93	95	95	98	Routine Service Data - DHIMS	Proportion of children under 1 year receiving Oral polio (OPV1) vaccine during the year. Numerator: Number of children under 1 year old receiving the	Quarterly/ Bi-annual/ Annual	DDHS/RDHS/Director FHD

INDICATOR	2010 Baseline	2011 Target	2012 Target	2013 Target	Data sources	Measurement	Monitoring Frequency	Responsibility
						OPV 1 vaccine in the year. Denominator: Number of children under 1 year old (estimated as 4% of the population).		
% of children immunized by age 1 -OPV 3	90	90	90	95	Routine Service Data DHIMS	Proportion of children under 1 year receiving Oral polio (OPV 3) vaccine during the year. Numerator: Number of children under 1 year old receiving the OPV3 vaccine in the year. Denominator: Number of children under	Quarterly/ Bi-annual/ Annual	DDHS/RDHS/Director FHD

INDICATOR	2010 Baseline	2011 Target	2012 Target	2013 Target	Data sources	Measurement	Monitoring Frequency	Responsibility
						1 year old (estimated as 4% of the population).		
% of children immunized by age 1 – Measles	90	90	90	95	Routine Service Data - DHIMS	Proportion of children under 1 year receiving Measles Vaccine during the year. Numerator: Number of children under 1 year receiving the Measles vaccine in the year. Denominator: Number of children under 1 year (estimated as 4% of the	Quarterly/ Bi-annual/ Annual	DDHS/RDHS/Director FHD

INDICATOR	2010 Baseline	2011 Target	2012 Target	2013 Target	Data sources	Measurement	Monitoring Frequency	Responsibility
						population).		
% of children immunized by age 1 -Yellow Fever	90	90	90	95	Routine Service Data - DHIMS	Proportion of children under 1 year receiving Yellow Fever Vaccine during the year. Numerator: Number of children under 1 year receiving the Yellow Fever vaccine in the year. Denominator: Number of children under 1 year (estimated as 4% of the population).	Quarterly/ Bi-annual/ Annual	DDHS/RDHS/Director FHD

INDICATOR	2010 Baseline	2011 Target	2012 Target	2013 Target	Data sources	Measurement	Monitoring Frequency	Responsibility
% of children aged 6 MTHS to 59mths receiving at least one dose of Vitamin A		70%	75%	78%	Routine Service Data - DHIMS	Proportion of children aged 6–59 months who received a high-dose vitamin A supplement within the last 6 months. Numerator: Number of children between 6-59 months who receive Vitamin A supplementation in the last 6 months. Denominator: number of children between 6-59 months.	Quarterly/ Bi-annual/ Annual	DDHS/RDHS/Director FHD
% of clients (15-24 years) who accepted FP service	10%	12%	14%	15%	Routine Service Data - DHIMS	Proportion of women aged 15 to 24 years who receive family	Quarterly/ Bi-annual/ Annual	DDHS/RDHS/Director FHD

INDICATOR	2010 Baseline	2011 Target	2012 Target	2013 Target	Data sources	Measurement	Monitoring Frequency	Responsibility
						planning services during the year. Numerator: Number of women in the age-group 15-24 years) accepting family planning services during the year. Denominator: Number of women in the fertility age group (WIFA). WIFA is estimated as 24% of the population.		
HO4: *Intensify prevention and control of communicable*								

INDICATOR	2010 Baseline	2011 Target	2012 Target	2013 Target	Data sources	Measurement	Monitoring Frequency	Responsibility
and non-communicable diseases and promote healthy lifestyles								
% of OPD cases that is Hypertension.	4.0	4.2	4.5	5.0	Routine Service Data - CHIM	Proportion of Outpatient morbidity cases diagnosed as hypertension out of the total number of cases seen. Numerator: Number of new outpatient cases diagnosed as hypertension. Denominator: Total number of new outpatient cases reported.	Quarterly/ Bi-annual/ Annual	Deputy Director Non-communicable Disease
% of OPD cases that is	0.8	0.9	1.0	1.2	Routine Service	Proportion of Outpatient	Quarterly/ Bi-annual/	Deputy Director Non-communicable

INDICATOR	2010 Baseline	2011 Target	2012 Target	2013 Target	Data sources	Measurement	Monitoring Frequency	Responsibility
Diabetes.					Data - CHIM	morbidity cases diagnosed as diabetes out of the total number of cases seen. Numerator: Number of new outpatient cases diagnosed as diabetes. Denominator: Total number of new outpatient cases reported.	Annual	Disease
% of OPD cases that is Sickle Cell Disease	0.12	0.20	0.3	0.5	Routine Service Data - CHIM	Proportion of Outpatient morbidity cases diagnosed as sickle cell disease out of the total number of cases seen.	Quarterly/ Bi-annual/ Annual	Deputy Director Non-communicable Disease

INDICATOR	2010 Baseline	2011 Target	2012 Target	2013 Target	Data sources	Measurement	Monitoring Frequency	Responsibility
						Numerator: Number of new outpatient cases diagnosed as sickle cell diseases. Denominator: Total number of new outpatient cases reported.		
No. of new HIV positive cases diagnosed		19,402	21,869	18,769	NACP	Number of new HIV positive cases diagnosed in the year	Quarterly/ Bi-annual/ Annual	Programme Manager NACP
Number of HIV+ cases receiving ARV therapy (cumulative)		63,861	78,919		NACP	Number of total HIV positive cases receiving ARV therapy (all cases both new and those already on therapy)	Quarterly/ Bi-annual/ Annual	Programe Manager NACP

INDICATOR	**2010 Baseline**	**2011 Target**	**2012 Target**	**2013 Target**	**Data sources**	**Measurement**	**Monitoring Frequency**	**Responsibility**
No. of guinea worm cases seen	≤20	0	0	0	GWEP/PHD	Number of Guinea Worm cases reported in the year.	Quarterly/ Bi-annual/ Annual	Programme Manager GWEP
Proportion of guinea worm cases contained	100%	100%	100%	100%	GWEP/PHD	Proportion of Guinea worm cases that are contained out of the total number of cases seen. Numerator: Number of Guinea Worm cases contained[3]. Numerator: Numerator: Total number of Guinea Worm cases reported.	Quarterly/ Bi-annual/ Annual	Programme Manager GWEP

[3] Contained means : Seen before worm emergence, worm fully extracted, client had no contact with water source, source of guinea worm treated with abate.(recheck)

INDICATOR	2010 Baseline	2011 Target	2012 Target	2013 Target	Data sources	Measurement	Monitoring Frequency	Responsibility
Non Polio AFP rate.	≥2/100,000	≥2/100,000	≥2/100,000	≥2/100,000	Disease Surveillance /PHD	Number of Acute Flaccid Paralysis [4]	Quarterly/ Bi-annual/ Annual	Director PHD
Proportion of OPD cases that is due malaria(total)	35%	32.5%	30.0%	28.0%	Routine Service Data - CHIM	Proportion of Outpatient morbidity cases diagnosed as malaria (whether laboratory confirmed or not) out of the total number of cases seen. Numerator: Number of new outpatient cases diagnosed as malaria. (also includes malaria in pregnancy) Denominator: Total number	Quarterly/ Bi-annual/ Annual	Programme Manager NMCP

[4] Non-Polio AFP rate is based on calculation that takes into accounts , district population, AFP cases reported, Adequacy and quality of stool specimen and sixty day follow up.(recheck)

INDICATOR	2010 Baseline	2011 Target	2012 Target	2013 Target	Data sources	Measurement	Monitoring Frequency	Responsibility
						of new outpatient cases reported.		
Proportion of OPD cases that is lab confirmed malaria. (microscopy + RDTs)	30%	40%	45%	60%	Routine Service Data - CHIM	Proportion of Outpatient morbidity cases confirmed as malaria (with laboratory confirmation whether by microscopy or RDT) out of the total number of cases seen. Numerator: Number of new Outpatient cases confirmed (whether by microscopy or RDT). Denominator: Total number	Quarterly/ Bi-annual/ Annual	Programme Manager NMCP

INDICATOR	2010 Baseline	2011 Target	2012 Target	2013 Target	Data sources	Measurement	Monitoring Frequency	Responsibility
						of new outpatient cases reported.		
Proportion of admissions due to lab confirmed malaria (all ages)	10.0%	8.0%	9.0%	6.0%	Routine Service Data - CHIM	Proportion of hospital admissions confirmed as malaria (with laboratory confirmation whether by microscopy or RDT) out of the total number of cases admitted. Numerator: Number of inpatient cases confirmed (whether by microscopy or RDT). Denominator: Total number of new	Quarterly/ Bi-annual/ Annual	Programme Manager NMCP

INDICATOR	2010 Baseline	2011 Target	2012 Target	2013 Target	Data sources	Measurement	Monitoring Frequency	Responsibility
						admissions.		
Proportion of deaths due to malaria (all ages)	15.0%	12.0%	10.0%	8.0%	Routine Service Data - CHIM	Proportion of hospital deaths due to malaria) out of the total number of deaths (all causes) recorded. Numerator: Number of inpatient deaths due to Malaria Denominator: Total number of deaths	Quarterly/ Bi-annual/ Annual	Programme Manager NMCP
Malaria case fatality rate (under 5 years)	1.3%	1.2%	1.1%	1.0%	Routine Service Data - CHIM	Proportion of children under five years of age who die of malaria out of the total number of children under five years who admitted with	Quarterly/ Bi-annual/ Annual	Programme Manager NMCP

INDICATOR	2010 Baseline	2011 Target	2012 Target	2013 Target	Data sources	Measurement	Monitoring Frequency	Responsibility
						diagnosis malaria. Numerator: Number of children under five years old dying of malaria. Denominator: Number of children under five years old admitted with a diagnosis of malaria.		
Proportion of pregnant women on IPT-P (at least two doses of SP)	42.5%	45.0%	50.0%	56.0%	Routine Service Data - CHIM	Percentage of ANC registrants receiving at least 2 doses of SP before 36 weeks. Numerator: Number of ANC registrants receiving at least 2 doses of SP before	Quarterly/ Bi-annual/ Annual	Programme Manager NMCP

INDICATOR	2010 Baseline	2011 Target	2012 Target	2013 Target	Data sources	Measurement	Monitoring Frequency	Responsibility
						36 weeks. Denominator: Total number of ANC registrants		
Percentage of Households with at least one net						Percentage of households with at least one LLITN compared to the total number of households Numerator: Total number of households with at least one net. Denominator: Total number of Households		
% of children under 5 using ITN	50%	65%	70%	75%	DHS MICS	Proportion of children under 5 years who sleep under ITN	Five years Three years	Programme Manager NMCP

INDICATOR	**2010 Baseline**	**2011 Target**	**2012 Target**	**2013 Target**	**Data sources**	**Measurement**	**Monitoring Frequency**	**Responsibility**
						Numerator: Number of children under 5 years old sleeping under ITN Denominator: Number of children aged less than 5 years (estimated as 18.5% of population)		
TB case notification rate	55/100,000	58/100,000	62/100,000	75/100,000	NTP/PHD	Proportion of total TB cases out of 100,000 population. Numerator: Total number of new and relapse cases notified in a year	Quarterly/ Bi-annual/ Annual	Program Manager NTP

INDICATOR	2010 Baseline	2011 Target	2012 Target	2013 Target	Data sources	Measurement	Monitoring Frequency	Responsibility
						Denominator: Total population per 100,000		
TB treatment success rate	87%	90%	90%	90%	NTP/PHD	Proportion of Sum of cured and completed TB treatment. Out of those put on treatment Numerator: Total number of TB cases cured and completed treatment Denominator: Total number of patients registered for TB treatment.	Annual	Programme Manager NTP
HO5. : Improve Institutional Care Including								

INDICATOR	2010 Baseline	2011 Target	2012 Target	2013 Target	Data sources	Measurement	Monitoring Frequency	Responsibility
Mental Health Service Delivery.								
Hospital Admission rate	47.9	48.9	49.9	50.8%	Routine Service Data - CHIM	Number of hospital admissions per 1000 population per year. Numerator: Total number of hospital admissions in the year multiplied by 1000. Denominator: Total population.	Quarterly/ Bi-annual/ Annual	Director ICD
Average length of stay (ALOS)	3.9	3.7	3.5	3.2	Routine Service Data - CHIM	Average duration of inpatient hospital stay (mean number of days from admission to	Quarterly/ Bi-annual/ Annual	Director ICD

INDICATOR	2010 Baseline	2011 Target	2012 Target	2013 Target	Data sources	Measurement	Monitoring Frequency	Responsibility
						discharge). Numerator: Number of patient-days. Denominator: Number of inpatient admissions.		
% Bed Occupancy	59.8	61.5	63.2	64.8	Routine Service Data - CHIM	Percentage of beds occupied by patients in a period. Numerator: Number of patient-days multiplied by 100. Denominator: Number of beds multiplied by number of days in the period.	Quarterly/ Bi-annual/ Annual	ICD

INDICATOR	2010 Baseline	2011 Target	2012 Target	2013 Target	Data sources	Measurement	Monitoring Frequency	Responsibility
Turnover per bed	58.8	59.6	60.4	61.1	Routine Service Data - CHIM	Average number of inpatients admitted per each hospital bed in a period. Numerator: Total number of patients admitted. Denominator: Number of hospital beds.	Quarterly/ Bi-annual/ Annual	ICD
Major operations performed					Routine Service Data - CHIM	The number of major surgical operations performed during a period.	Quarterly/ Bi-annual/ Annual	ICD
Minor operations performed					Routine Service Data - CHIM	The number of minor surgical operations performed during a	Quarterly/ Bi-annual/ Annual	ICD

INDICATOR	2010 Baseline	2011 Target	2012 Target	2013 Target	Data sources	Measurement	Monitoring Frequency	Responsibility
						period.		
Proportion of Hospital beds in District/Region allocated to Mental Health clients					Routine Service Data – CHIM	Proportion of hospital beds allocated specifically for admitting mental health patients out of the total number of beds. Numerator: Number of hospital beds allocated specifically for admitting mental health patients Denominator: Total bed complement of the hospital.	Quarterly/ Bi-annual/ Annual	ICD
Professional mental health staff per					Routine Service	Proportion of practicing professional	Quarterly/ Bi-annual/ Annual	ICD

INDICATOR	2010 Baseline	2011 Target	2012 Target	2013 Target	Data sources	Measurement	Monitoring Frequency	Responsibility
population ratio					Data - CHIM	mental health staff compared to the total population being served. Numerator: Number of practicing professional mental health staff. Denominator: Total population in catchment area being served.		

MILESTONES

	2010	2011	2012	2013
SO1: Bridge equity gaps in access to health care and nutrition services and ensure sustainable financing arrangements that protect the poor		840 new functional CHPS zones added		
SO2: Strengthen governance and improve efficiency and effectiveness in health service delivery	EmONC assessment completed and disseminated	50% of district hospitals equipped with Comprehensive EmONC equipment	70% of district hospitals and 50% of health centres equipped with C/BEmONC equipment respectively	90% of district hospitals and 70% of health centres equipped with C/BEmOC equipment respectively
SO3: improve access to quality maternal, neonatal, child and adolescent health services		Increase supervised delivery to 50%	Pneumococcal and rotavirus vaccines successfully introduced	Adolescent health services being provided in 30 district hospitals
SO4: Intensify prevention and control of communicable and non-communicable	National cancer plan developed	Universal coverage of ITN/Ms achieved	Healthy lifestyles integrated into basic school and teacher	85% of children under five years sleeping

diseases and promote healthy lifestyles			training college curricula 50% reduction in Yaws prevalence achieved	under bed nets
SO5: Strengthen institutional care, including mental health service delivery	Referral policy and guidelines developed	Community mental health strategy developed (and in place?)		

[i] Human Resource Strategic Plan – Seek reference

[ii] Demographic and Health Survey-2008 - projections