Malawi Health SWAp Mid-Term Review

Annexes

NORAD COLLECTED REVIEWS 22/2008

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MALAWI HEALTH SWAP MID-TERM REVIEW

FULL ANNEXES TO SUMMARY REPORT

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MALAWI HEALTH SWAP MID-TERM REVIEW

TERMS OF REFERENCE
INCEPTION PLAN FRAMEWORK

July 2007

Mid Term Review (MTR) of the programme of Work for the Malawi Health Sector: Specific Terms of Reference for the Team Leader

Background

The Government of Malawi in collaboration with Development Partners finalised the six-year Programme of Work for the Health Sector in 2004. The basis for this plan was the Essential Health Package (EHP) which entails a minimum package of services to be provided free of charge at point of delivery to all Malawians.

The POW has been implemented at the national and district level since October 2004 with financial and technical support from the Government of Malawi and Development Partners.

The agreement to finance and support the programme of work was formalised in a memorandum of understanding using a SWAp (Sector Wide Approach). This has provided a common framework for health sector planning, budgeting, financing, financial management and reporting and monitoring and evaluation as well as agreement on both yearly and midterm reviews. In line with this provision, a Mid Term Review (MTR) of the Health Sector Programme of Work (POW) is being proposed. This review will incorporate key health sector and other relevant reports from other sectors from the financial years 2004/2005-2006/2007. The Mid Term Review will be the primary focus of the Joint Health Sector Annual Review meeting in September 2007.

Aim of the Mid Term Review:

The overall aim of the review is to assess the progress made in reaching the purpose of PoW, i.e. ensuring increased availability of quality EHP services as well as increased Utilization of EHP and Other Health Services

Specifically, the MTR is expected to:
1. Assess progress in meeting POW output targets and trends towards meeting health outcome targets as stipulated in the SWAp ME&R framework
2. Assess progress and achievements in the implementation of the pillars of the POW and related health sector policies and strategic plans in the delivery of the Essential Health Package
3. Identify resource and capacity needs as well as constraints in implementation of POW
4. Review financing modalities, harmonisation, alignment and the systems that have been developed to coordinate and implement the SWAp POW.
5. To identify and propose relevant policies that would accelerate achievement of POW goals and objectives.

Key areas for the Review:

1. **Progress in achieving the pillars of the POW and related health sector strategic plans in delivery of the EHP in the context of wider government reforms and other influencing factors beyond the health sector.**

   1.1. To review the relevance of each pillar of the POW in relation to achievement of health sector goals and objectives
   1.2. To assess progress towards setting up systems and structures necessary for implementing the POW/EHP
   1.3. To review the working relationship with other ministries/Institutions to ensure effective implementation of the POW [Including the following; Ministry of Finance, Department of Human Resource Management & Development (DHMRD), Ministry of Local Government, Office of the Director of Public Procurement (ODPP and NAC)]
   1.4. To assess contribution of Public Private Partnerships in achieving POW outputs

2. **Progress in meeting output targets**

   2.1. To assess progress made against midyear and Annual review milestones
   2.2. To assess progress made against SWAp Monitoring Evaluation & Research framework targets during the first three years of the POW implementation (to the extent possible).
   2.3. To assess performance of individual districts against selected indicators.
   2.4. To assess whether progress in POW pillars is leading to more equitable local health services meeting the needs of the poor and vulnerable population

3. **Resource and capacity needs as well as constraints in implementing the POW**

   3.1. *To re-assess the cost of the POW implementation in the light of current disease burden, type and volume of intervention and macro economy
   3.2. To assess the level, appropriateness and sustainability of health care financing
   3.3. To project resources available from Government of Malawi (GoM) and Development Partners (DPs) for the remaining phase of the POW and to recommend strategies to close the financial gap
   3.4. To assess the capacity of the MOH and DPs to implement the POW taking into account any ongoing work.

4. **Financing modalities and harmonisation and alignment within the SWAP framework**

   4.1. To assess the effectiveness of the financial modalities of each partner (GoM, Pool and Discrete donors) to the health budget during the first three years of the POW implementation

   4.2. To assess the level of partners' harmonisation and alignment of operational requirements in line with the Health SWAp MOU

   4.3. To assess the extent to which DPs, MoH and GoM have harmonised their Planning, Monitoring and Evaluation activities in line with the Health SWAp MOU.

4.4. To assess the extent of harmonisation of M&E activities with other frameworks such as MDGs, MGDS, NAC's M&E and MOLG's M&E.

4.5. To assess the effectiveness of the SWAp Governance structures and review process in promoting harmonization, coordination and collaboration and reducing level of effort amongst all stakeholders (ie Health sector review group constituencies)

5. Policies for accelerating achievement of POW goals and objectives

5.1. To assess the relevance of current policies in achieving the POW goals and objectives view of the above

5.2. To recommend areas for future policy formulation

Structure of the Review

The Mid Term Review is the responsibility of Ministry of Health with support from all partners supporting the implementation of the Programme of Work. It should be seen as an integral part of the health sector SWAP process. The overall responsibility of the process will be with the Secretary for Health.

The SWAp secretariat shall coordinate the MTR process supported by the Health Management Information Systems (HMIS) Unit. The Steering committee for the MTR will be the Monitoring and Evaluation and Research Technical Working Group within the SWAP Governance framework. The review shall be carried out by the external consultants who will be supported by the relevant department personnel. The consultants may need to be teamed up with individuals identified from among the Health Sector Review Group constituents.

The draft Mid Term Review Report will be presented for discussion at the 2007 Joint Annual Review conference. The final report shall be presented circulated to the senior management committee and all constituents of the Health Sector Review Group.

Proposed Methodology for the Review

The evaluation team will:

1. Review appropriate documents & reports including but not limited to the following:

    a. The Health SWAp MOU
    b. Health SWAp Midyear Review Reports
    c. Health SWAp Annual Review Report
    d. Health Sector Annual Reports
    e. HMIS Bulletins
    f. The POW and EHP Documents (2004-2010)
    g. Minutes of Technical Working Group meetings
    h. The Health SWAp Monitoring &Evaluation & Research Framework

and Indicator matrix
i. Annual Implementation plans (and also DIPs, ZIPs, CHIPs and HIPs)
j. Copies of Service level Agreements
k. Financing Agreements for sub-vented Institutions
l. Expenditure Reports
m. Audit Reports
n. DHS 2000 and 2004
o. National Health Accounts
p. Multi Indicator Cluster Survey (MICS)
q. Welfare Monitoring Survey Report
r. Road Map for Reduction of MM
s. National HIV/AIDS Strategic Framework
t. Country wide Situation Analysis report on HIV/AIDS services
u. HRH Strategic Framework
v. MGDS
w. Food Security Monitoring Report (MVAC)
x. Relevant Policy/Guidelines documents

2. Consult all major stakeholders at different levels of the health sector including the following:
    a. Meetings with Head of Departments, Units within the MoH and other relevant GoM Ministries, Health Professionals Regulatory bodies and Departments such as MoF, MoLG among others
    b. Visits to selected Zonal, District Health and District Assembly Offices as well as a sample of health facilities as may be necessary.
    c. Meetings with other Health SWAp Partners including CHAM Secretariat, Development Partners and Non Governmental Organizations
    d. Meetings with Chairpersons of Various Technical Working Groups of the Health SWAp and attend ongoing /specially convened TWG meetings.

Outputs

The main output of the review shall be:
a) an executive summary of not more than 10 pages
b) a draft main report with evidence based recommendations.

The team leader shall submit the draft report to the MOH and HSRG by 10th of September 2007.

Team Composition

A core team of consultants will be required in the following areas.

The team should be comprised of experts in
1. A team leader who will be an expert in Public Health Policy, Health Planning ,M& E and SWAps
2. HR/institutional development expert
3. Pharmaceuticals (systems in particular) expert
4. Public Health experts to review the delivery of the EHP.(x2) This will include review of equipment and infrastructure.

5. A health economist/ Financing expert with strong public health backgrounds and understanding of health equity issues and have worked within a SWAp environment.
6. Procurement specialist
7. Financial management specialist.

Duration of the assignment

The review team will be expected to carry out the review in August and September 2007, and have a draft report ready for presentation by the Team Leader at the Joint Annual Review meeting to be held at the end of September 2007.

Specific Tasks for Team Leader

The Team Leader will take overall responsibility for the fulfilment of the Terms of Reference by the Mid Term Review Team and team members will report to the TL. The Team Leader will ensure that specific tasks of all other team members are clarified and that team members perform their expected roles in accordance with the ToRs. The Team Leader will propose the layout of the MTR final report, propose a programme of work to accomplish the task, and will produce the MTR final report in accordance with the TOR. The Team Leader will ensure that all the Consultants work as a team and interface with each other to produce the consolidated draft report by 10th September 2007.

The Team Leader will be available to present the findings and recommendations of the Mid Term Review Team during the Annual Review of the health SWAp to be held 25—28th September 2007.

The Team Leader will coordinate the finalisation of the Mid Term Review report based on comments and inputs from the Mid Term Review Steering Group and Annual Review.

Reporting

The Team Leader will liaise directly with the Director SWAp Secretariat. The Steering Group for the Mid term Review will be a Task Force chaired by the Director SWAp under the Monitoring and Evaluation and Research Technical Working Group within the SWAP Governance framework.

The Team Leader contract will be issued by DFID. The main point of contact for contractual issues will be Comfort Khembo (DFID, Health and HIV and AIDS Programme Manager).

Terms of Reference for each key area of the POW

Human Resource

1. To review the appropriateness of the staffing norms in the POW by level of service delivery
2. To appraise the current staffing level and relate them to the human resource requirements for the sector.
3. To appraise the equity in human resources distribution including hard to reach areas.
4. To examine the package of incentives.
5. To examine the progress and institutionalisation of the training and deployment policies.
6. To comment on the support to training institutions and progress made in meeting targets or potentially meeting targets.
7. To propose projection of human resource needs for the remaining period of the POW based on HR strategic plan.
8. To review progress in setting up of HRHMIS.
9. To assess progress made in achieving targets of the 6 year training plan and Emergency Human Resource Programme (EHRP)

Pharmaceuticals Technical

1. Review the progress in forecasting, procurement and distribution and supply of drugs for the financial year
2. Review the integration of supply system
3. Review reports on drug availability at all levels of health care
4. Validate the quantification date and methods and whether projections are valid.
5. Review the quantification to date and the supply chain manager
6. Review the implementation of the CMS improvement plan.
7. Assess the adequacy of the proposed minimum set of pharmaceuticals, supplies and sundries for the delivery of the minimum health care package by levels

Health Infrastructure and equipment

1. Review the progress in the implementation of the Capital investment plan.
2. Appraise any guidelines related to infrastructure development and equipment.
3. Propose recommendations for the remaining period of POW and beyond, particularly the requirements for upgrading of Health Centres and new construction.

Delivery of Essential Health Package (EHP)

1. Review the progress made in the implementation of the EHP to date.
    a. At district level (inputs, process and output)
    b. At national level (performance of technical programmes in carrying out their core functions).
    c. At community level
2. Critically assess the content of the plans of the disease technical programmes in support of the EHP.

3. Review the progress, challenges/constraints in strengthening the partnership with the private sector (CHAM, BLM etc,)
4. To assess the extent for which Service Level Agreements are contributing to access of EHP by the rural poor
5. Assess if financing patterns correspond with delivery of EHP package

Financing

1. Review the initial finance estimates of the POW including costs and resources available
2. Project costs and resources available from all sources for the remaining phase of POW and recommend strategies to close the gap,
3. Critically assess the flow of funds from sources to service delivery points, and propose ways of improving the transfer of funds.
4. Review financing implications for service level agreements

Financial Management

1. Review the financial management systems at headquarters and district levels
2. Review progress on the financial management improvement plan
3. Assess level of implementation of recommendations from the audit. (in relation to the improvement plan.

Procurement

1. Review progress on the institutionalisation of the procurement function at district central hospital and MoH headquarters. (The functioning of IPC's).
2. Review progress of the Procurement improvement plan in relation to recommendations of the procurement audit.
3. Review progress in the implementation of the procurement plans

Planning and Monitoring

1. Review the implementation of the integrated supervision check list at district level.
2. Review existing data sources (household surveys, DHS etc) in terms of data collection on utilisation, consumer satisfaction for users/non users of health services and propose strategies for next POW period
3. Review the appropriateness of the SWAp Monitoring indicators and the targets with particular reference to increasing the amount of segregated data (by gender, socioeconomic groups)
4. Review the progress made with HMIS, its use and appropriateness and relevance in terms of numbers and choice of indicators given the workload at each level of service delivery.
5. Identify and assess the appropriateness of the mechanisms and tools put in place to improve the planning capacity for the delivery of health services in the Districts and Central Hospitals
6. Review progress in the setting up and functioning of zonal offices.
7. Review the applicability of the provisions in the SWAP MOU and other instruments.

Decentralisation

1. Appraise the appropriateness of the proposed changes made in the organisational structure of health care delivery in the districts in light of the objectives of Government Decentralisation Policy and POW including the restructuring of the Local Government systems.
2. Examine to what extent inter sectoral collaboration at the district level has facilitated timely and orderly implementation of the POW

INCEPTION PLAN MATRIX

Information required	Responsibility	Questions	
Objective 1: Progress in meeting output targets and trends towards meeting outcome targets			
1.1 To what degree have output targets expected to be met by this time actually been achieved	EHP consultant M&E consultant	• What progress has been made against mid-year and annual review milestones? • What progress has been made against SWAp Monitoring and Evaluation & Research framework targets during the first three years of the POW implementation • To what degree does achievement of POW indicators have a real impact on progress towards achieving the MOH's mission?	•
1.2 What are trends towards meeting outcome targets?	EHP consultant M&E consultant	• How well is progress towards meeting output milestones leading the POW to achieve its outcome and impact indicators? • To what degree is progress in POW pillars leading to more equitable local health services that meet the needs of poor and vulnerable populations? •	•
1.3 How equitable is performance across districts in meeting selected targets?	EHP M&E	• Look at selected indicators, how well do districts compare with each other in terms of performance? • What are the factors leading to strong and weak performance? • How equitable is performance of the health sector in terms of reach into all communities in Malawi? • How equitable is the performance of the health sector in terms of reaching those most in need, in particular women and children?	•
1.4. What progress is being made in improving performance of national technical programmes?	EHP SRH Team	• How well have national technical programmes performed in carrying out their core functions? • How relevant and effective are the disease technical programme plans, in terms of achieving EHP targets? • How well are national technical programmes being implemented throughout the different levels of service delivery?	•
Objective 2: Progress in achieving the pillars of the POW and other health sector strategic plans in delivery of the EHP			
2.1. How relevant is each POW pillar in relation to achieving health sector goals and objectives?	M&E consultant	• Can health sector goals and objectives be easily mapped into the different pillars? • Are there gaps between those interventions emphasised through the pillars and POW when compared to overall health sector objectives to be achieved? • What other pillars or interventions would be required to ensure all objectives are met?	•
2.2. How well have those systems and procedures necessary to supporting the POW been set up and are operating?	M&E consultant	*M&E Systems* • What are the basic elements of the current M&E system and how well are they integrated ? Do they meet international standards for a robust HMIS?) • How well is the integrated supervision list working at district level? • How valid and reliable is data collected through existing data sources? • How well are the specific HR needs for the HMIS met – and are there steps that can be taken to improve this? • What progress has been made in institutionalising the HMIS at each level of service delivery?	•

		• How appropriate has the choice of indicators, and number of indicators been within the HMIS, given the workload required at each level of service delivery? • How well do the disease specific programmes integrate with the HMIS?	
	M&E Consultant	*Planning Systems* • How is this data being used effectively for planning and monitoring purposes? • How appropriate are the SWAp monitoring indicators and the targets therein, especially in light of increasing segregation of the data (by gender, socio-economic groups etc.)? • What are, and how appropriate are, the mechanisms and tools put in place to improve the planning capacity in Districts and Central Hospitals? • How well do annual plans, annual budgets and annual reviews link internally and to the PoW.	
	Pharmaceutical consultant	*Drug Supply systems* • How well is forecasting, procurement, distribution and supply of drugs operating? What are the strengths and weaknesses of the current system? • How well have the systems been integrated? • How reliable are drug supplies to all levels in the health system? What have been the factors behind stock outs? • To what degree are pharmaceutical supply projections valid? • How well has overall supply chain management worked to date, and in particular quantification. • What progress is being made in implementing the Central Medical Stores improvement plan? • How likely is the proposed minimum set of pharmaceuticals, supplies and sundries going to be sufficient for the delivery of the minimum EHP at all levels?	
	Procurement consultant	*Procurement and Logistics systems* • What progress has been made in institutionalising the procurement function at district central hospital and MOH headquarters? • What is the broad estimate of proportion of procurement using government systems vs parallel systems? • How well is the Procurement Improvement plan achieving the actions recommended in the procurement audit? o What improvements have been made since the procurement audit, and what are the major areas that still need strengthening? • What are the strengths and weaknesses to current procurement plans in terms of how well understood they are, levels of authority and fit with national procurement policies? • Are there relevant procurement reforms going on at central government and if so is the health sector linking in with these? • How well are the bilateral/multilateral partners organized to support procurement	

		reforms across government?	
2.3. To what degree are relationships with key MOH government partners helping or hindering effective implementation of the POW?	Institutional Development	• What are the key relationships between line ministries and other governmental bodies (NAC, ODPP etc?) • How functional are the Service Level Agreements with each of these partners? • What are opportunities and constraints to operationalising fully the SLAs? • How could relationships be further strengthened? • Where SLAs do not exist, how are relationships mediated and how well are they functioning?	•
2.4. To what degree has the decentralisation process helped or hindered the effective implementation of the POW?	Institutional Development	• How appropriate have been the proposed changes made in health care delivery in districts? • To what extent has inter-sectoral collaboration at the district level facilitated timely and orderly implementation of the POW? • How far has progress been made in setting up zonal offices to support the decentralisation process in the health sector?	•
2.5.How effective are public private partnerships in supporting achievement of the POW outputs and outcomes?	Institutional Development	• What are the main private partnerships engaged in by the MOH? • According to CHAM, BLM and MOH, what have been the strengths and weaknesses of the parternships? • How could these partnerships be further strengthened to ensure full implementation of national strategies and programmes?	•
Objective 3: Identify resource and capacity needs as well as constraints in implementation of the POW			
3. 1 What have been the financial needs, as well as constraints in implementing the POW?	Financial management consultant 1 Financial management consultant 2	*Finance and Accounts* • Review the initial finance estimates of the POW including costs and resources available • Project costs and resources available from all sources (GOM and DPs) for the remaining phase of the POW and recommend strategies to close the gap • Critically assess the flow of funds from sources to service delivery points, and propose ways of improving the transfer of funds • Review financing implications of service level agreements *Financial Management* • Review the financial management systems at headquarters and district levels • Review progress on the financial management improvement plan • Assess the level of implementation of recommendations from the audit, in relation to the improvement plan	•
3.2. What have been the human resource needs and constraints in implementing the POW?	Human resource consultant 1	*Human resource numbers* • How appropriate are staffing norms in the POW by level of service delivery? • How well do current staffing levels fit with the human resource requirements in the health sector?	

		• How equitably are human resources distributed throughout the country, and in particular in hard to reach areas? • What is the projected human resource need for the remaining period of the POW, when considered against the HR strategic plan? • What progress has been made in setting up the HRHMIS for tracking HR for health? *Human resource training and incentives* • How appropriate and effective is the package of incentives provided to health workers? • How well are training and deployment policies being institutionalised throughout the health sector? • How appropriate and effective is the support being given to training institutions? • How well is training of health workers progressing towards meeting targets? • How likely is it that targets will be achieved for the 6 year training plan and the Emergency Human Resource Programme?	
3.3. What have been the infrastructure and equipment needs and constraints in implementing the POW?	Infrastructure and Equipment Consultant	• What progress has been made on the Capital Investment Plan? • How appropriate, effective and efficient have the guidelines for infrastructure and equipment been to date? • What are the requirements for upgrading Health centres, or constructing new health centres, for the remaining period of the POW? • What other infrastructure and equipment requirements are there for the remaining period of time?	
Objective 4: Assess financing modalities and harmonisation and alignment within the SWAp			
4.1. How effective have the financial modalities of each partner (GOM, Pool and Discrete) been for supporting POW implementation?	Health financing consultant	• What have been the relative and absolute strengths and weaknesses of the different modalities? • How could current modalities be improved and streamlined to ensure greater effectiveness? • What is the broad balance between aid instruments in use? • What is the broad estimate of on/off budget sector financing? •	
4.2. How appropriate and sustainable is the current level of health care financing?	Health financing consultant	• In light of the Malawi's macro-economy and projected performance, is current and project health expenditure appropriate and sustainable? • What needs to change or improve to increase both approrpriateness and sustainability? • Is there one unified budget covering the whole of the sector spending ? • Is there one unified budget covering the EHP /POW spending?	
4.3. To what degree are partners' operational requirements aligned and harmonised as per the Health SWAp MOU?	Governance consultant	• Are operational requirements fitting with MOU agreements? If not, where is there not a good fit and why?	
4.4. To what extent have DPs, MOH and GOM harmonised their planning, monitoring and evaluation activities as	Governance consultant	• Are all activities planned and funded by different stakeholders captured within the POW and monitoring reports? • Are sector partners using the POW monitoring reports for their reporting needs or are they	

per the Health SWAp MOU?		carrying out additional monitoring excercises ? • Where is there divergence from the POW and why?	
4.5. To what extent have M&E activities been harmonised with other frameworks, such as the MDGs, MGDS, NAC's M&E and MOLG's M&E?	Governance consultant M&E consultant	• Do the POW indicators reflect MDG targets and are results reported on effectively? • Are POW indicators reflected in the MGDS? How are they captured in GOM reporting? • How aligned is the HMIS with NAC's M&E requirements? What improvements could be made? • How aligned is the HMIS with the MOLG's M&E? What improvements could be made?	
4.6. How effective are the Health SWAp Governance structures, partnerships and review processes in promoting harmonisation, coordination and collaboration, and in reducing transaction costs across all stakeholders.	Governance consultant	• How applicable have the Health SWAp MOU provisions been in practice? • Is there clarity regarding the roles, responsibilities and comparative advantage of the various governance structures (clarity both amongst members of these structures and when viewed by the GoMalawi departments and other stakeholders)? • What are the strengths and weaknesses of current governance structures? • Is there clarity regarding the roles, responsibilities and comparative advantage of the various partnership fora (clarity both amongst partners and when viewed by the GoMalawi departments and other stakeholders)? • What are the strengths and weaknesses of the various coordination mechanisms? • How well have different stakeholders harmonised their health SWAp review processes to date? • How well is the health SWAP integrated with coordination mechanisms for HIV?	
Objective 5: To identify and propose relevant policies for accelerating achievement of POW goals and objectives			
5.1. How relevant are current policies for achieving POW goals and objectives?	Whole team	• Based on findings from the analysis provided to the above questions, are the policies/strategies ?currently in place appropriate and effective for achieving the POW? • What are the key bottlenecks and gaps in policy?	
5.2. What should be considered for future policy formulation?	Whole team	• What recommendations would the team make to solve bottlenecks and fill in gaps in policies as they now stand?	

ANNEX 2 DOCUMENTS REVIEWED

Addai E and Gaere L. (2001) Capacity-building and systems development for Sector Wide Approaches (SWAps): the experience of the Ghana Health Sector
Ager et al (2003). Review of the Organisational Structure of the Central MOHP in the light of the transition to a developed health system and related reforms.
Babu, S. (2006). Tracking of Human Resources for Health in Malawi (draft), Unpublished document.
Caffrey, M. and G. Frelick (2006). Health Workforce "Innovative Approaches and Promising Practices" Study. Attracting and Retaining Nurse Tutors in Malawi, Capacity Project.
Department of Planning (2004). A joint programme of work for a health sector wide approach (SWAp) [2004-2010]. Lilongwe, Ministry of Health.
Dickinson C, Martinez J and Whitaker D (2006) The Global Fund operating in a SWAp through a common fund: issues and lessons from Mozambique. HLSP
Dzilankhulani AM (2007) Development and Reconstitution of Technical Working Groups and their Links to Support the Malawi Partnership Forum - DRAFT. National AIDS Commission
Foster, M. (2000) Experience with implementing Sector Wide Approaches: A Background working paper for DFID White Paper
Gilks, C. and et al (2006). Report of the Malawi ART Programme External Review Team 4th - 15th September 2006, Ministry of Health.
Government of Malawi (2004) Memorandum of Understanding Concerning the Health Sector Wide Approach in Malawi, Between the Govt of Malawi and Health Sector Collaborating Partners
Government of Malawi (2004) Annexes/Operational Guidelines for Government and Collaborating Partners Ref: MOU
Government of Malawi (2006) Welfare Monitoring Survey
Government of Malawi (2007) Public Expenditure Report, Chapter 5, Health.
Health Donor Review Group (2007) Minutes of HDG Meeting, 1 August 2007
Health Management Information Unit (2004) HMIS Bulletin 2003-2004
Health Management Information Unit (2005) HMIS Bulletin 2004 – 2005
Health Management Information Unit (2007) Progress Made by HMIU on AIP
Health Sector Review Group (2005) TORs for the HSRG
Health Sector Review Group (2007) Minutes of the HSRG, various meetings July 2005 – July 2007
Health Services Commission (2006). Report on the tracer study.
Health Systems Resource Centre (2001) Development of Administrative and Financial Management Capacity for Sector Wide Approaches (SWAps): Experience of the Bangladesh Health Sector
High Level Forum, Aid Effectiveness (2005) Paris Declaration on Aid Effectiveness.
Hutton G (2004) Case Study of a 'successful' sector wide approach – Uganda health sector SWAp
Kachiza, C. and V. Shaw (2004). Lilongwe District Health Office Facility Survey.
Koot, J. and T. Martineau (2004). Institutional Appraisal (of the College of Medicine, University of Malawi).
KPMG (2006) MOH Health SWAp, Management Report for Year ended June 2005
Malawi Vulnerability Assessment Committee (2005) Food Security Monitoring Report, June 2005
Malawi National Statistics Officer (2005) Malawi Demographic and Health Survey, 2004
Martineau, T., U. Lehmann, et al. (2006). Factors affecting retention of different groups of rural health workers in Malawi and Eastern Cape Province, South Africa. Liverpool, Liverpool School of Tropical Medicine.
Ministry of Health, Malawi Health SWAp Donor Group, et al. (2007). Human resources/ capacity development within the health sector. Needs assessment study. Final report - June 2007.
Ministry of Health (undated) The Malawi Essential Health Package, Annex 1: Details of Interventions
Ministry of Health (2004). Human resources in the health sector: toward a solution.
Ministry of Health (2004b) A Joint Programme of Work for a Health Sector Wide Approach 2004 – 2010
Ministry of Health (2004) Hospital Autonomy Programme, Lilongwe District Health Office, Facility Survey
Ministry of Health (2004) Extent of Bypassing Health Facilities, Lilongwe District Health Office
Ministry of Health (2004) Extent of Bypassing Health Facilities, Blantyre District Health Office
Ministry of Health (2005) Health Sector Annual Implementation Plan 2005-06
Ministry of Health (2005) District Implementation Plans, various 2005-06
Ministry of Health (2005) Report of the Annual Review of the Health Sector, Oct 2004 – June 2005
Ministry of Health (2005) Road Map for Accelerating the reduction of Maternal and Neonatal Mortality and Morbidity in Malawi, October 2005
Ministry of Health (2006) Health Sector Annual Implementation Plan 2006-07
Ministry of Health (2006) District Implementation Plans various 2006-07
Ministry of Health (2006) Operationalisation of Zonal Health Support Offices, meeting minutes 03/2006

Ministry of Health (2006 Financial Performance of the DHOs for the Half Year Ended 31st Dec. 2005
Ministry of Health (2006). National Health Sector Deployment Policy (Draft).
Ministry of Health (2006) Report of the Mid-Year Review of the Health Sector, July 05 – Dec 05
Ministry of Health (2006). Report of the annual review of the health sector 2005-2006 Financial Year.
Ministry of Health (2006) Essential Health Care Package Capital Investment Plan.
Ministry of Health (2006) Physical Assets Management, Annual Report 2005-06
Ministry of Health (2006) Description of Medical Equipment, Spare Parts and Service Contracts to be Procured in the 2006/07 Financial Year
Ministry of Health (2006) MOH Financial Management Report, Quarter ended Sept 2006.
Ministry of Health (2006) Draft Procurement Plan for Health SWAp for 2006/07 Financial Year
Ministry of Health (2007) Implementation of recommendations from procurement audit
Ministry of Health (2007). Draft Human Resources Development (HRD) Policy For The Public Health Sector (August 2007).
Ministry of Health (2007). Draft human resources for health strategic plan: 2007-2010 (April 2007).
Ministry of Health (2007). Human Resources Development (HRD) Policy For The Public Health Sector.
Ministry of Health (2007). Mid-year report for the work of the health sector. July to December 2006.
Ministry of Health (2007). Report for the Joint Mid-Year Review of The Health Sector, 2006-2007.
Ministry of Health (2007) MOH Financial Management Report (FMR) quarter ended 31st Dec.2006
Ministry of Health (2007) Health SWAp Consolidated Statement of Receipts and Payments, Year Ended 30th June 2006
Ministry of Health (2007) Action Plan for Procurement Improvement, 25 January 2007
Ministry of Health (2007) Framework for Service Level Agreements
Ministry of Health (2007) Monitoring, Evaluation and Research Framework for the Sector Wide Approach
Ministry of Health (2007) CABS Indicators, February 2007
Ministry of Health (2007) National Policy for Control of Acute Respiratory Infections in Malawi
Ministry of Health (2007) Guide for the Management of Malaria, updated July 2007
Ministry of Health (2007 Malawi Policy on Tuberculosis Control in Prisons
Ministry of Health and Population (1999). Malawi National Health Plan 1999-2004: Volume 3 - Health Sector Human Resources Plan. Lilongwe, Government of Malawi.
MoHP (2002). EHP cost model.
Ministry of Health and Population (2002) SWAp Design Mission (May – November, 2002) and SWAp Implementation Plan (Jan. 2003 – June 2006), Final Draft Report
Ministry of Health and Population (2003) Final Report on a Consultancy to Study the Structure and Potential for Community Participation in Health Care Decision Making at Sub-District Level in Malawi, June 2003, Justin Nyondo
Neupane R and Njie H (2007) Zambian Health Sector Support: Synthesis Report
Palmer, D. (2006). "Tackling Malawi's Human Resources Crisis." Reproductive Health Matters **14**(27): 27.
Pavignani E. (2001) Swamped in a SWAp? Experience- inspired remarks about Sector Wide Approaches
Picazo, O. and T. Martineau (2005). Human Resources and Financing for Health in Malawi: Issues and Options. Unpublished, World Bank.
Planning Department, M. (2002). A 6-Year Emergency Pre-Service Training Plan.
Sangala, WOO (2006) Major Accomplishments, Challenges and Experiences in the Implementation of the Health SWAp in 2005/06.
Seloilwe et al (2005). Kamuzu College of Nursing External Evaluation report. 1-10 August, 2005.
Senior Management Committee (2006) TORs for the Senior Management Committee
Senior Management Committee (2006) SMC Minutes, various: Dec. 2004 – Oct. 2006
SGS Nederland (2006) Procurement Audit, Health SWAp: July 2004 – December 2005
TWG FMP (2006) Issues from meeting held on 6th December 2006
TWG FMP (2007) TWG FMP Minutes, various March 2005 – February 2007
TWG FMP (2007 Report from SWAp Secretariat
TWG I&E (2006) Report to Senior Management Committee, July 2006
TWG I&E (2006) TORs for the TWG on Infrastructure and Equipment
TWG ME&R (2005) Draft TORs for M&E Working Group
TWG ME&R (2007) Minutes of ME&R TWG, various March 2005 – February 2007
TWG ME&R (2005) Minutes of the fourth meeting of the Equity and Access to Health Care sub-group, 6th September 2005
TWG NTP (2007) NTP Technical Working Group TORs 2007
TWG NTP (2007) Bi-annual meeting report, April 20, 2007.
TWG General 92007) Committee Progress
UNFPA (2005) Sector Wide Approaches: A resource book for UNFPA and its partners. HLSP

Vujicic, M. and P. Zurn (2006). "The dynamics of the health labour market." Int J Health Plann Manage **21**(2): 101-15.
Walford, V. (2003) Defining and Evaluating sector wide approaches. HLSP
WHO (2005). Malawi College of Health Sciences. External Evaluation Report: 1-5 August 2005**:** 11pp.
WHO (2006) Inequities in health and health care in Malawi: Trends and Policy Implications
World Bank (2006). Human Resources For HEALTH: AFRICA Concept Note.

ANNEX 3: PEOPLE INTERVIEWED

Ministry of Health: Central Level

Hon. Marjorie Ngaunje, M.P.	Minister of Health
Mr.Chris Kang'ombe	Secretary for Health
Mr. Elias Lodzeni	Director of Finance and Administration
Mr. Gerald Kachepa	Director of Finance
Mr. P. Shema	Controller of Accounting
Mr. Nick Hall	TA, Senior Financial Management Specialist
Mr. Saidi SB Kaluwa	TA, Senior Financial Management Specialist
Mr. Raymond Chirwa	Internal Audit Department, MOH
Dr Habib Samanje	Director, Preventive Health Services
Mr. Patrick Zimpita	Director, Planning
Mr. Chris Moyo	Deputy Director, Planning (HMIU)
Mr Seshu Babu	TA, HMIU
Dr Mathias Joshua	Acting Director, Clinical Services
Mrs. Sheila Bandazi	Acting Director, Nursing Services
Dr. Ann Phoya	Director, SWAp Secretariat
Dr. Haldon Njiko	Deputy Director, SWAp Secretariat
Ms Trish Araru	TA, SWAp Secretariat
Ms. Cynthia Eldridge	TA, Department of Planning,
Mr. Edwin Wochi	CHRMO
Mr Kawamba,	Assistant Human Resource Management Officer, HR Unit
Ian Chingwale,	TA HRD, HR Unit
Mr Patrick Boko	HR Unit
Charles Matsiko	TA, HR planning
Harold Kachandi	TA, HR management
Mr. Chadza	Chief Systems Analyst
Mr. Medson Kasambara	Chief Procurement Officer
Mr. Brighton Nsiku	Principle Procurement Officer
Dr Chisale Mhango	Director, Reproductive Health Unit
Ms Fannie Kachale	Deputy Program Manager, Reproductive Health Unit
Dr Bailah Leigh	Technical Adviser on Maternal and Newborn Health, RHU
Mrs. Doreen Ali	Programme Manager, National Malaria Control Programme
Dr Felix Salaniponi	Director, TB Control Programme
Dr Edwin Libamba	HIV / AIDS Unit, MOH
Dr Ben Chilima	Deputy Director, Community Health Sciences Unit
Mr Geofrey Chirwa	Data Manager, Expanded Programme on Immunisation,
Mrs Maganga	Programme Officer, Child Lung Health Programme
Mrs Kandoole	Head, Epidemiology Unit, CHSU
Mrs Ngulube	Principal Nutritionist, Nutrition Unit, MOH
Mr Meja	Programme Manager, Skin and Leprosy
Mr Sapa	Executive Secretary, Health Services Commission
Mrs Stella Sagawa	Chair, Health Services Commission
Mr. S.P. Chembe	Deputy Secretary, Health Service Commission

Malawi Government Partners, Lilongwe

Mr. Randson P. Mwadiwa,	Secretary to the Treasury, Ministry of Finance
Mr. R. A. Kampanje	Accountant General, Ministry of Finance
Dr. Naomi Ngwira	Director, Aid and Debt, Ministry of Finance
Dr. Alfred Nyasulu	Deputy Director, Aid and Debt, Ministry of Finance
Mr. B.Y. Mganga	Chief Accountant (Project Manager IFMIS), Ministry of Finance
Mr. R.A. Perekamoyo,	Assistant Budget Director, Ministry of Finance
Mrs. Fiona Kalemba,	Assistant Parliamentary Draughtsman, Min. of Justice
Mr, Willie Samute	PS for Public Sector Reform, OPC
Mr. Ligomeka	Director of Local Government Services, MOLG
Dr Bizwick Mwale	Executive Director, National Aids Commission
Mr. Zimba-Bondo	Director, Management Services, DHRMD
Mrs E Makhole	Assistant Director Management Services, DHRMD

Health Partners, Lilongwe

Mr Francis Gondwe	Executive Director, Christian Health Association of Malawi
Ms.Desire Mhango	Director Health Programmes, CHAM
Mr. P. Kumzinda	Director of Finance and Administration, CHAM
Mr. Thomas Blessings Dokotala	Financial Advisor, CHAM
Dr M. Moeti	WHO Country Representative
Dr E. Limbambala	WHO, HIV AIDS Country Officer,
Dr E Z Asbu	WHO. Country Officer Health Systems,
Mrs T. G. Mwale	WHO, National Programme Officer for SRH,
Mr W. Dodoli	WHO, National Programme Officer Malaria Control
Dr Susan Kambale	WHO. IMCI programme Officer,
Ms. Aida Girma	UNICEF Representative, Malawi
Mr. Juan Ortiz	UNICEF
Mr. Eliab Somé	UNICEF
Mr Ketema Bizuneh	UNICEF, Child Health Programme Manager
Ms Dorothy Lazaro	UNFPA
Mr Sam Tabrizi	UNDP, Capacity Development Unit Manager,
Ms S Hollander	UNDP, Programme Analyst, Capacity Development,
Mrs F Kachimera	UNDP
Ms Alisa Cameroon	USAID Health Coordinator
Ms Lily Banda	USAID
Ms Martha Kwataine	Malawi Health Equity Network
Mr. Charles Kaunda	African Development Bank/MOH
Dr. Julia Kemp	DFID, Health and HIV Advisor
Ms. Comfort Khembo	DFID, Deputy Health Advisor
Ms. Sarah Mtonya	DFID, HIV Programme Officer
Mr. Matt Gordon	DFID, Health and Governance Advisor
Paula Ghrist	Director, Local Fund Agent, Global Fund
Dr. Albert Chirwa	World Bank, Health and HIV Coordinator
Mr Dieter Kohler	GTZ Health
Michael Niechzial	GTZ Consultant

Training Institutions

Prof Robin Broadhead	Principal, Malawi College of Medicine, Blantyre
Prof Bowie	Department of Community Health, College of Medicine
Mr. Jamali Kanonji	Senior Accountant, College of Medicine
Mr. Samson Kalulu	Asst. Finance Officer, College of Medicine
Mr. Godfrey Chisoni	Project Accountant, College of Medicine
Mr Fleming	Principal, Ekwendeni College of Nursing
Ms Diana Jere	Principal, Kamuzu College of Nursing
Mr Masache	Director, Malawi College of Health Sciences
Mr Edward Ngaye	Registrar, Malawi College of Health Sciences
Mr Bisalomu Mchazime	Asst. Registrar, Malawi College of Health Sciences
Mr Akadu	Principal, Nkoma College of Nursing

Zonal and Central Hospital Interviews

Dr. Andrew Gonani	Zonal Supervisor, Northern Zone
Mr. Longwe	Asst. Zonal Officer, Northern Zone
Ms. Chiziza	Asst. Zonal Officer, Northern Zone
Dr Esther Ratsma	Zonal Health Officer, Head of Southern Zonal Support Team
Mr G. M. Chamatambe	Zonal Technical Assistant
Mr M. Msadala	Assistant Zonal Health Supervisor (Technical)
Mr, Malumbo Gondwe	Programme Officer (M&E) Central East Zone, Salima
Mr Edwin Bakali	Acting Director, Zomba Central Hospital
Mr Makata	Chief, Health services Administration, Zomba Central Hospital
Mr. MSS Kandoje	Accountant, Zomba Central Hospital
Ms M. Galilaya	Matron, Zomba Central Hospital
Dr Joseph Msosa	Specialist Ophthalmologist, Kamuzu Central Hospital
Ms.Rose Kolola Dzimadzi	Director, Mzuzu Central Hospital
Dr. Khosa	Medical Officer, Mzuzu Central Hospital
Mr. Harry Selemani	Asst. Statistician, Mzuzu Central Hospital

Mr. Jim Mutafya	Procurement Officer, Mzuzu Central Hospital
Mr. Kitson V K Musani	Principle Accountant, Mzuzu Central Hospital
Mr. Sifu Nyasulu	Hospital Administrator, Mzuzu Central Hospital
Various staff	Mzuzu Central Hospital (Maternity, Pharmacy, etc)
Dr George Mwale,	Director and team, Queen Elizabeth Central Hospital, Blantyre
Tom Chisale,	Chief Hospital Administrator; Queen Elizabeth Central Hospital
Stephen Polela,	Sr Asst HRMO, Queen Elizabeth Central Hospital
Mr. Thomas Makiwa	Principal Accountant, Queen Elizabeth Central Hospital

Central and Regional Medical Stores

Mr. I Zingano	Director, Central Medical Stores
Mr. M Juma	Procurement and Stores Manager, Glocum
Ms Christine Phiri	Northern Regional Medical Stores
Mr. Nyirinidi	Northern Regional Medical Stores

District Level Interviews

Dr A Maida	District Health Officer, Lilongwe District Health Office
Mr C A P Kalemba	District Commissioner, Lilongwe District Assembly
Mr Kambiya	Clinical Officer in Charge, Kabudula Rural Hospital, Lilongwe
Mrs Violet Kamfose	Acting DHO, Dowa District Hospital
Dr. Moses Ngwira	Deputy DHO, Dowa
Mr. Charles Chapalata	Accountant, Dowa District Hospital
Mr. Chavinda	DHO, Rumphi District
Mr. Kasonda	District Health Office Administrator, Rumphi District
Mr. Andrew Musomali	District Commissioner, Rumphi District Assembly
Mr. Andrew Mhcago	Director of Finance, Rumphi District
Mr. Musanyaibere	In-Charge Bolero Health Centre, Rumphi District
Mr. Mkandawya	Medical Assistant, Bolero Health Centre, Rumphi
Mr. Musiska	Asst. Environmental Health Officer, Bolero Health Centre
Mr. Chalusa	In-charge, Mzuzu Health Centre
Mrs. Towela Maud Kumwenda	Nursing In-Charge, Nhkata Bay Hospital
Mr. Darwin Mungoli	Hospital Administrator, Nhkata Bay, Hospital
Mr. Helton Walutundu Gondwe	Asst. Procurement Officer, Nhkata Bay, Hospital
Mr. Benson Mbale	Asst Accountant, Nhkata Bay, Hospital
Mr. Stanley Fusani	Acting Accountant, DHMT Zomba
Mrs. Mary Kamuyanja	Senior Accounts Assistant, DHMT, Zomba
Mr Solomon Mpawa	Clinical Officer I/C, Matawale Urban Health centre, Zomba
Ms Flora Mphaya	Reg Nurse Midwife, Matawale Urban Health centre, Zomba
Mr D. Newa	Senior Clinical Officer, Matawale Urban Health centre, Zomba
Mr Mvula	Environmental Health Officer, Ntchisi District Hospital
Mr Sekani Meja	Medical Assistant, Chinkhwili Health Centre, Dowa
Mr. Lomosi	In-Charge, Mponela Rural Hospital
Mrs. Caroline Banda	Accounts Assistant, Mponela Rural Hospital
Village Health Committee	Mwandauka Village, Mponela Rural Hospital
Safe Motherhood Committee	Mwandauka Village, Mponela Rural Hospital
Dr Theonest Bugingo	Medical officer, Mtengowanthenga Community Hospital (SLA Dowa DHO)
Sr. Rose Guevarra	Adminstrator, Mtengowanthenga Community Hospital
Sr. Teresita Cheung	Acting Hospital in Charge, Mtengowanthenga Community Hospital
Agnes Mpamang'ombe	Matron, Mtengowanthenga Community Hospital
Annie Mwanza	Chief Community Health Nurse, Mtengowanthenga Hospital
Mr. Charles Makanga	District Commissioner, Blantyre District Assembly
Mrs. M.Kabambe	Director of Finance, Blantyre District Assembly
Dr Chimota Phiri	District Medical Officer, Blantyre DHMT
Mr A. Mhangu	Chief Clinical Superintendent, Blantyre DHMT
Mrs Mhome	Administrator, Blantyre DHMT
Mr Kalimbuma	Deputy Administrator, Blantyre DHMT
Mr Malauzi	Deputy Accountant, Blantyre DHMT
Mrs Sandramu	Human Resource Management Officer, Blantyre DHMT
Mr. Albert Mbowe	DHO, Kasungu District
Mr. Kambeni	Hospital Administrator, Kasungu District
Mrs. Ngwata	Hospital Accountant, Kasungu District
Mrs. Kapenda	Catering and Supplies Officer, Kasungu District Hospital

Meetings Attended

Human Resources TWG
Monitoring, Evaluation and Research TWG
Financial Management and Procurement TWG
Drugs and Medical Supplies TWG
Health Donor Group

ANNEX 4 – ESSENTIAL HEALTH PACKAGE

MALAWI HEALTH SWAP MID-TERM REVIEW

ESSENTIAL HEALTH PACKAGE REPORT

Authors: Dr. Hatib Njie and Dr. Ken Maleta

November 2007

1. INTRODUCTION AND BACKGROUND

The overall aim of the Mid-Term Review is *"to assess the progress made in reaching the purpose of the POW, i.e. ensuring the availability of quality EHP services as well as increased utilization of EHP and other health services".*

This section of the report addresses Objective 1 and contributes to Objective 5 of the Terms of Reference (TOR) for the external review.

The Joint Program of Work (POW) 2004-2010 is the first joint health development framework within which the nascent Malawi health SWAp operates. It was developed through a highly consultative process involving all major stakeholders including the various Directorates of Central MOH, the District Health Teams, other health related sectors of Government, Collaborating Partners (CPs), NGOs – notably the Christian Health Association of Malawi (CHAM), which provides nearly 26% of health services in Malawi (CHAM cites 37%-40%), and health related civil society organizations.

The POW was formulated on the foundation laid during the implementation of the 4th NHP and is the contribution of the health sector to the achievement of the goals and objectives of the Malawi PRSP 2002, its successor, the Malawi Growth and Development Strategy (MGDS) and the MDGs.

Although Malawi has made significant progress in addressing its high burden of disease, its health indicators remain at unacceptable levels, with some vital indicators such as Life Expectancy and Maternal Mortality Ratio actually worsening over the past decade or so. In view of the prevailing constraints such as gross under funding of the sector; the severe human resources crisis that resulted in the closure of many rural health facilities; frequent stock-out of basic essential drugs and the generally dilapidated, inequitably distributed and under-equipped rural health facilities, a conscious decision was taken by the Malawi Government and its collaborating partners to adopt the delivery of an Essential Health Package (EHP) as the main vehicle for achieving the mission and goal of the Ministry of Health. Effective delivery of this prioritized and limited package was to be the core business of the MOH over the 6-year plan period covering 2004 to 2010.

On the basis of available local and international data, the major causes of morbidity and mortality were defined and those conditions and diseases that contribute most to the heavy burden of ill health and premature death were selected for priority attention. A second level of prioritization was undertaken through the selection of a limited set of core interventions for each of the 11 selected conditions. These sets of evidence-based and cost effective interventions constitute the Malawi EHP. The POW also elaborated the 6 Pillars that would support the effective delivery of the EHP, including a comprehensive SWAp Monitoring Framework to track progress on a biannual basis, with a midterm review and an end evaluation

Consensus on the content of the EHP and its Pillars was achieved only after nearly two years of extensive consultations before the costing was undertaken. The POW is being implemented under a SWAp which is in turn guided by a Memorandum of Understanding signed between the Government of Malawi MOH and most of the key health CPs - UK DFID, the Norwegian Government and the World Bank being the being the founding CP signatories. The EHP and its pillars are listed below.

COMPONENTS OF THE EHP AND ITS PILLARS

Essential Health Package

Vaccine Preventable Diseases
Acute Respiratory Tract Infections
Diarrhoea, including Cholera
Adverse Maternal and Newborn outcomes, including Family Planning
Malaria
Tuberculosis
HIV/AIDS & STI
Schistosomiasis
Malnutrition, including Micronutrients
Eye, Ear and Skin infections
Common injuries, accidents and trauma

The Pillars

Human Resources Development
Pharmaceuticals & Medical Supplies
Essential/Basic Health Equipment
Infrastructure Development
Routine Operations at service delivery leve
Central Operations, including policy & systems development

The Malawi health SWAp operates under both pooling and discrete funding modalities. The total cost of the POW (EHP and the 6 Pillars) was calculated at US$1.5 Billion (US$22.p.c./p.a) over 6 years but this was subsequently reduced to US$735 Million by the MOH "after a reality check of absorptive capacity" and limited resources. This amounts to US$17 per capita per annum compared to the US$34 p.c. estimated in the report of the Commission on Macroeconomics and Health[1] for delivery of an EHP excluding ACT and ART.

Delivery of the EHP was to be at the District Health System level, inclusive of the District hospital and community levels and was to be undertaken through a public-private mix, principally with CHAM, and with other private not-for-profit service providers. The highest level of priority has been explicitly accorded to the mothers, children under-5 and to the poor who live mostly in the rural areas.

2. METHODOLOGY

The approach used for this section is as per the methodology described in the TORs. Briefly this included document review, site visits to the various service delivery levels and interviews with key informants. The Review Team met most mornings under the leadership of the Team leader to coordinate the activities of the various sub-groups, assess progress and review the plans of work and logistics for the following days.

A parallel UNFPA funded in-depth study of the Reproductive Health component of the EHP was also in progress and the Leader of the MTR Review Team and one of the

[1] Economics and Health: Investing on health for economic development; WHO-CMH, 2001

external consultants assigned to the EHP component of the review had a useful working meeting with three members of the UNFPA study team including its Leader. Preliminary findings were exchanged and possible inputs into the MTR Review report were graciously provided to us.

The main preliminary findings of the MTR were presented (and comments received) at de-briefing sessions with the Senior Management of MOH chaired by the Secretary for Health, and separately to the Minister of Health, representatives of the Health Donor Group and senior managers of MOH.

3. MAIN FINDINGS AND DISCUSSION of the overall EHP

3.1 The content and selected interventions of the EHP are appropriate and in line with current recommended practice. The package addresses the main conditions that contribute the bulk of Malawi's burden of disease and premature death, as well as to the major problems of significant public health importance to Malawi.

3.2 The absence of community water supply and sanitation from the EHP would appear to be an anomaly in a country heavily burdened by malaria and diarrhoeal diseases. It was however, a considered decision reached after extensive discussion based on the premise that the related interventions were not under the mandate of the MOH and that the associated supportive activities are already an integral part of the work schedule of HSAs; and that liaison with other extension workers is part of the HSA's schedule of duties and training curriculum. Safe water and environmental sanitation are also important elements of the sector's IEC activities[1].

3.3 The flexibility that is inbuilt in the annual District Implementation Plan (DIP) development process allows districts to accord higher levels of priority to specific components and interventions of the EHP, and/or inclusion of district specific essential non-EHP conditions that are of major concern to any particular district.

3.4 Concern was also expressed within central MOH about the lack of attention given in the EHP to other serious emerging conditions, especially non-communicable diseases (NCD) such as cardiovascular diseases, hypertension, diabetes, mental health and cancer; while Government expenditure on treatment overseas (particularly for cancer) was becoming a substantial expenditure item for the MOH with only a limited number of Malawians able to benefit from this facility. Data on NCDs in Malawi is scarce; though hospital data suggests an increasing trend in incidence and fatality rates from NCD.

3.5 The EHP has already undergone significant changes as a result of review or development of new strategic plans of the central programmes. The changes relate mostly to introduction of new treatment regimens, e.g. artemisinin combination therapy or ACT as first line treatment of simple malaria, adoption of the policy on ITNs being free of cost to high risk groups; ART at no direct cost to eligible patients; etc. These changes are however within the framework of the original POW, their significant additional cost implications notwithstanding.

With many of the challenges to scaling up the EHP not yet overcome, it may be too early to consider expanding it at this stage. Home-based care, including palliative care for AIDS patients is already within theEHP, as are breast, cervical and prostate cancers within the RH program. Increasing emphasis on promotion of healthy life styles and possible strengthening of the palliative care component of the current

[1] EHP Annex 3 – Report on Feb 2002 Discussions on the EHP, MOH

EHP to include cancers could be an appropriate interim response. Meanwhile, the evidence base that will guide decision making on whether or not to include NCD in the Malawi EHP, including the cost-effectiveness of any accompanying interventions, can be built up.

3.6 The **Annual Implementation Plans** (AIPs) have in general focussed on the priority interventions of the EHP components, but with some programmes continue to include interventions that had NOT been identified as being among the "evidence based and most effective interventions". While many of these may undoubtedly contribute to achieving program targets, the practice goes contrary to the intent of the EHP, favouring dilution rather than concentration of resources on the identified priorities. There appears to be a need for closer scrutiny of submissions for inclusion in the consolidated AIP budget.

An illustrative example relates to the RHU – here it is clearly evident that maternal mortality reduction through improved access to and use of quality EmOC services is the priority focus of the RHU; yet scarce human/and or financial resources are being spent of activities such as Youth friendly services; Harmful Practices; and Genital cancers; that are not within Malawi's "cost-effective interventions" while the bulk of the allocation for EmOC remains tied up within the yet to be completed process of releasing the ADB 2 funds.

3.7 There is strong evidence of increasing flow of resources (human, financial, and material) to the districts, with resulting restoration of zeal and commitment of service providers. Service utilization rates have consequently increased significantly with encouraging signs of improvement in some of the SWAp output indicators.

3.8 In spite of the program of sensitization for launching the POW, interviews during the field visits indicated that the level of knowledge and understanding of the EHP and the health SWAp were observed to decline rapidly as one moves from the centre to the periphery. Greater attention should be given to continuous sensitization of health personnel and the community alike, especially on the principles of integration of delivery, continuous availability of the EHP interventions to all Malawians; equity and targeted approach to reaching the poorest and most vulnerable.

3.9 There is evidence of increasing inequity in both health status and effective access to essential health care, with the overwhelming rural poor bearing the bulk of ill health and premature deaths[1].

3.10 The concept of integrated delivery of the EHP is still more theory than reality in all the facilities we visited, and programmes such as under-5 clinics, EPI, maternal care services mostly operate as discrete services on specific scheduled days and times. While this may in part be due to the HRH crisis, the supervision and support mechanisms still favour vertical service delivery. DHMT should be encouraged to move away from the practice of operating on the basis of intervention specific district coordinators (E.g. EPI, IMCI, FP, Safe Motherhood, STI, PMTCT, etc). DHMTs and Zonal Support Offices should consider providing the necessary technical assistance for the progressive integration of services at heath centre and rural hospital levels.

3.11 Public-private-mix through Service Level Agreements (SLAs) is one of the main strategies for achieving the equity objectives of the POW. A worrying level of persistence of the "us and them" attitude to the partnership was observed during the

[1] Equity in Health and Health care in Malawi: analysis of trends, Zere et al; BMC Public Health, 15 May, 2007

field visit interviews. This was exemplified by the reported delays in commencing the investment plans of the CHAM partners; the slow pace of increasing the number and scope of services under the SLA; and even more serious is the reported lengthy delays (of 7 months or more in some instances) in settling invoices from the CHAM partners. Central MOH and the SWAp sector review group will need to keep a close eye on the evolution of the SLA arrangements.

3.12 **The 6 Pillars** of the POW that are to support the effective delivery of the EHP are discussed under separate sections of this report.

3.13 Despite the many initiatives already in place to mitigate the effects of the HRH crisis, HRH constraints seem likely to remain the most critical limiting factor to attaining the targets of the POW. Many of the districts are implementing diverse schemes to mitigate the shortage of trained staff; these include providing incentives for individuals from better staffed facilities going as "relief" to hard to reach health centres for periods of 4 weeks at a time on a voluntary rotational basis. This way many of the health centres that had been closed are now operating. Similarly, the "locum" scheme which allows staff to work additional shifts with pay within their duty station has reduced the manning of wards and labour rooms either by untrained staff or restriction of service. Consideration should be given to providing a special fund that will enable Districts to engage additional trained staff on contractual basis for deployment to targeted under-served areas of the country. This could cover the remaining period of the POW so as to allow for their replacement through regular employment as the HRH plan bears fruit.

3.14 Current problems with the procurement and supply chain management system threaten to arrest the momentum that the POW and SWAp have generated. Stock-outs of critical essential supplies (e.g. Ergometrine, hydralazine, BCG vaccine, ITNs, STI medicines, etc.) were being widely reported during the period of this MTR. The review team notes that steps are being taken to address these constraints.

3.15 The refurbishment, upgrading and/or erection of new health facilities are rapidly transforming the working environment to the benefit of both patients and health workers. Similarly for utilities, basic equipment, transport and communications. The capital investment plan should give top priority for construction of new Health Centres to the most under served areas, in pursuit of the POW's equity objectives.

3.16 Also widely appreciated by all the districts and health facilities visited as part of this review is the assurance of increased and regular funding for "Other Recurrent Transactions" or (ORT). This discretionary facility has allowed for much needed minor civil works, provision of uniforms, protective gear, expendable supplies for maintaining health facilities, infection prevention activities, locum and relief schemes described above, supportive supervision, community maternal death audits, etc.

The section that follows will review each of the components of the EHP in turn.

4. PROGRESS IN DELIVERY OF THE ESSENTIAL HEALTH CARE PACKAGE

Progress made on the SWAp PoW Monitoring and Evaluation Research Indicator Matrix [4] is appended at the end of the section.

[4] Progress Made on SWAp PoW ME&R Indicator Matrix. Ministry of Health (September 2007).

Vaccine preventable diseases (VPD)

VPD covers those conditions that may be avoided through child immunisation, i.e. measles, polio, diphtheria, pertussis, tetanus, tuberculosis, hepatitis B and Haemophilus influenza type B (HIB). The goal of the Expanded Programme on Immunisation (EPI) is to increase access to immunisation services, provide effective and potent vaccines and increase demand for the services in order to reduce infant morbidity and mortality rates due to childhood vaccine preventable diseases.

Progress made towards achieving output targets

The EPI programme's target was to achieve a 95% DPT+HepB+Hib national immunisation coverage with at least all districts achieving coverage rate of > 82%; a measles immunisation coverage of 85% and a dropout rate of less than 10% by 2007[5]. Figure 1 below illustrates the progress in vaccination coverage. In general, there has been a steady increase in coverage rates over the past three years for most antigens, but the coverage remains short of the targets and the drop out rate remains above 10%. The number of pregnant women receiving at least two doses of TTV has also declined steadily since 2003 and is estimated at 61% as of June 2007. The proportion of fully immunised children shows improvement from population based figures (MDHS and MICS) to 71% coverage in MICS 2006 compared to 64% as per MDHS 2004. However these figures fall short of those recorded in 1992 (82%) and 2000 (70%). The long term trend in EPI coverage is worrying with apparent decline; but over the past three years there seems to be a reversal in the trends which is encouraging. However, at the time of the review there were significant stock outs of vaccines at the central level (no BCG and DPT in central stores) due to procurement problems which if not corrected could seriously compromise the performance of the programme.

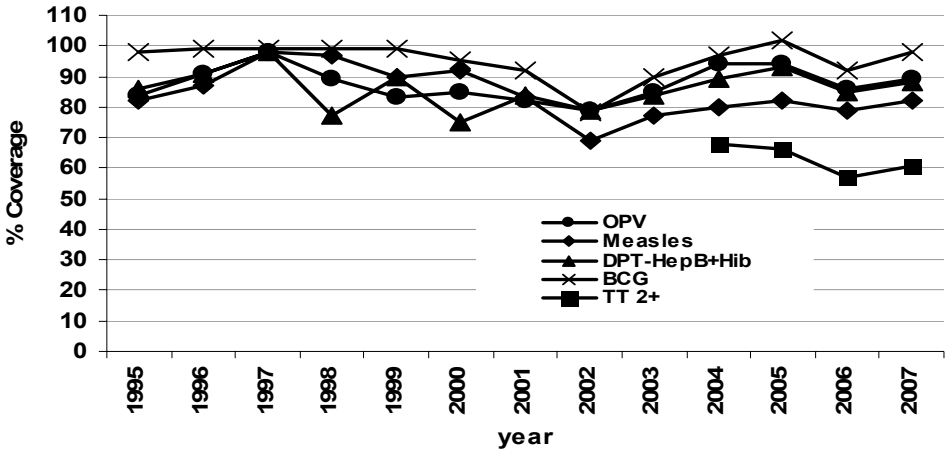
The quality of surveillance has been maintained for Acute Flaccid Paralysis (AFP) and as of end of 2006 the reported detection rate of Non polio AFP was 1.7 per 100, 000 versus a target of 2 per 100,000. However there has been persistent sub optimal performance for some districts for both AFP detection and stool adequacy rates. Stool adequacy for Northern Region is reported to be very poor.

For neonatal tetanus (NNT), Malawi achieved NNT elimination status in 2002 and this has been maintained. Estimated incidence rate as of end 2006 was 0.01 per1, 000 live births. However, active surveillance/search visits for EPI target diseases were not conducted as planned due to problems with disbursement of funds from WHO country Office

Trends in paediatric Hib meningitis have shown a significant decrease from an annual incidence of above 30 cases per 100,000 population to less than 5 per 100,000 population by 2005 since the introduction of the pentavalent (DPT+HepB+Hib) vaccine (QECH sentinel surveillance data). Comparatively, there has been no change in incidence of pneumococcal meningitis. The decline in incidence is observed in both urban and rural areas.

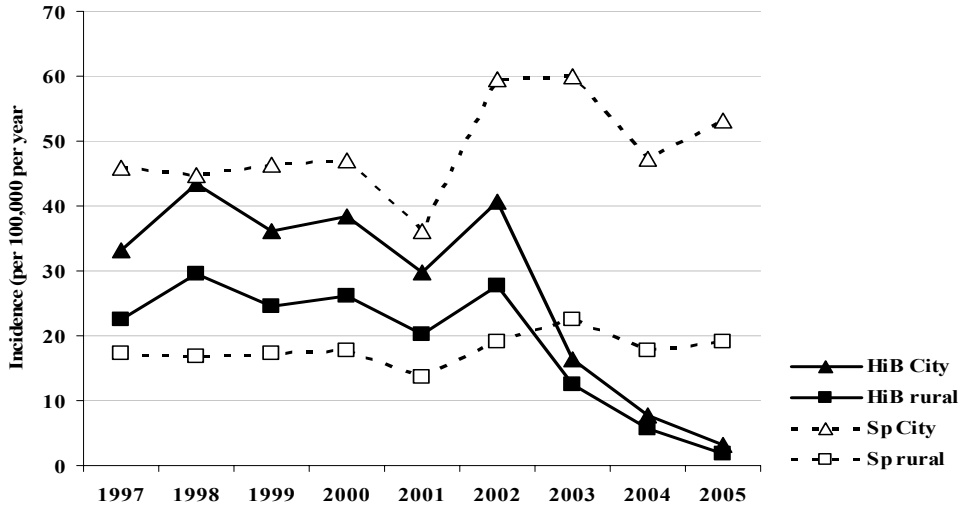
[5] Comprehensive EPI Multiyear Plan 2006 – 2010. Expanded Programme on Immunisation. Ministry of Health (2005).

Figure 1. Progress in immunisation coverage



Data from Ministry of Health, Exapnded Programme on Imminsation

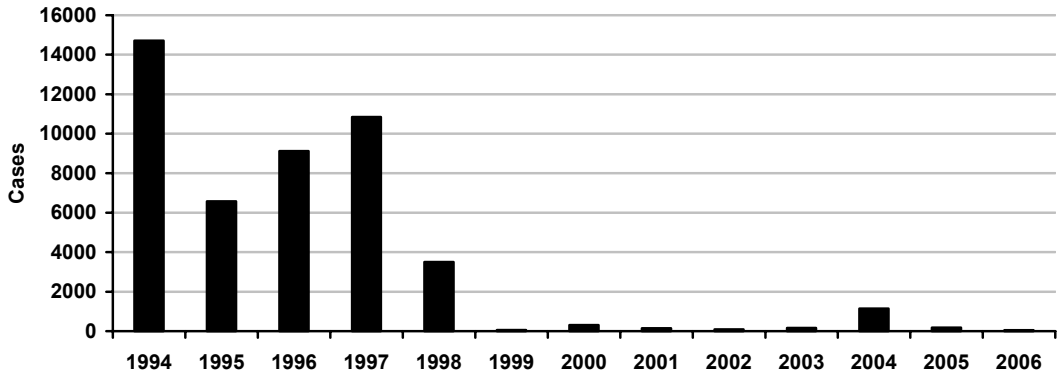
Figure 2. Trends in paediatric Haemophilus Influenza B Meningitis



Data from QECH Hib sentinel surveillance

While nationally coverage rates are generally sustained above 80% for most antigens, there are regional differences and very few districts have achieved the target set for measles vaccination. However the number of reported cases of measles has fallen sharply from 1994 to date as illustrated in figure 3 below.

Figure 3. Reported Measles cases *(Exapnded Programme on Immunisation data)*



To offset the regional differences, the EPI programme started implementing the Reaching Every District (RED) approach. The programme is targeted towards districts with DPT+HepB+Hib3 and measles coverage below 80%. The programme started in Chitipa, Mzimba, Kasungu, Ntchisi, Nkhotakota, Salima, Lilongwe, and Chiradzulu targeting DHMTs and health centre staff. The programme has since expanded to Nkhatabay, Mchinji, Dedza, Mangochi, Phalombe, Thyolo, Blantyre and Chikwawa. 1500 health workers have been trained in the RED approach and training materials for Mid Level Management (MLM) have been adapted and initial training of trainers courses have been run for 6 districts. These approaches will help reach groups of people residing in hard to reach areas and some religious groups for example Zion and Apostolic sects which do not allow their members to have vaccination, and refugees and migrants in some parts of the country. The presence of such groups may be the explanation for some of the low coverage observed in some districts[6]. Additionally, trainings are planned for cold chain technicians and replacement of some obsolete equipment is planned for next year. Funds for these activities have already been sourced and are pending disbursement.

Performance of the technical programme.

The EPI programme has developed a strategic plan called Comprehensive EPI Multi Year Plan (cMYP) for the years 2006 to 2010[7]. The plans are in line with the POW and directly address the bottlenecks and challenges identified through mid year and annual reviews. If these plans are implemented they are likely to sustain the relatively high immunisation coverage rates and impact on morbidity and mortality attributable to vaccine preventable diseases and in the long run impact on infant mortality and contribute towards the achievement of the MOH's goals. The plans include detailed financial gap analyses anticipated and how to address them.

However, so far implementation of the plans has not been without problems. Procurement of vaccines remains a problem. Previously, the programme has relied on UNICEF to procure vaccines on their behalf. However, from the year 2007, procurement of vaccines has had to be done through CMS as per SWAp MOU requirements and

[6] World Health Organisation Regional Office for Africa (2003). Implementing RED Approach: A guide for District Health Management Teams.
[7] Ministry of Health (2005).Malawi Comprehensive EPI Multi Year Plan 2006-2010

World Bank conditionalities. Since the change over was initiated late, there has been delays in getting vaccines into the country. At the time of the MTR, the national store did not have any BCG and pentavalent vaccine in stock although almost all the districts had some supplies. Emergency procurement had been arranged and likely the situation will normalise. However such situations expose the programmes ability to sustain high coverage of vaccination. Additionally, despite earlier assumptions on cost of the pentavalent vaccine to which government contributes 20% and GAVI 80%, it has been realised that the initial assumptions may not hold and that has an impact on the cost of the EHP.

Lastly, like all other elements of the EHP, EPI service delivery is dependent on the rest of the pillars of the EHP working and in place. Any major problems in these pillars have a direct impact on the success of the technical plans for delivery of EPI services.

4.1 Acute Diarrhoeal disease

The scope of interventions for acute diarrhoeal disease includes treatment for dehydration, preparation for and treatment for cholera outbreaks and treatment of dysentery.

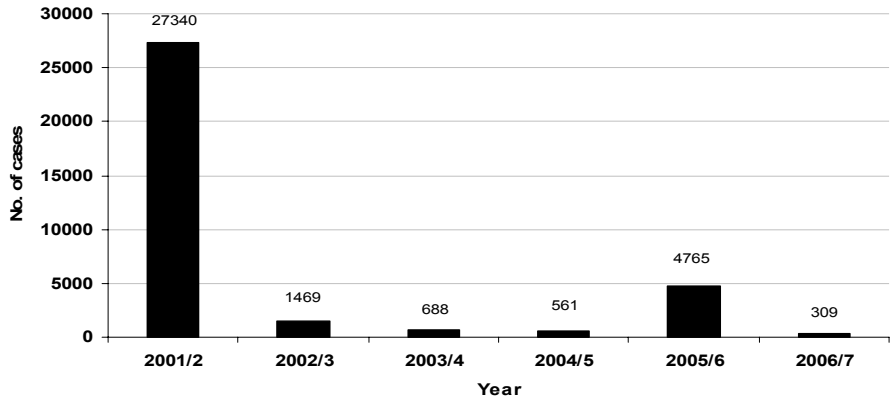
Progress made towards achieving output targets

Standard guidelines and protocols for the management of all the above conditions have been developed and disseminated to all service delivery points. In 2005/6, 162 per 1000 under 5 children visited a health facility for treatment of non-bloody diarrhoea compared to138, 202 and 194 per 1000 children in 2004/5, 2003/4 and 2002/3 respectively[8]. However MDHS 2004 indicates that only a third of cases of acute diarrhoea seek care from health facilities so the disease burden is likely larger than indicated by facility figures. The target coverage set for the EHP is 20% so the present coverage falls short of the target. Out of the 350,621 non-bloody diarrhoea cases that were taken to health facilities for treatment, a total of 1,162 died (i.e. non-bloody diarrhoea death rate of 3.3 per 1000 new cases). There is variation in fatality rates by district and in 2005/6 the highest fatality rates were reported in Mwanza (9.2%) and lowest in Nkhatabay and Ntchisi.

Trends in reported cholera cases are depicted in the figure 4 below. The reported number of cases of cholera has substantially gone down from a high in 2001. The figures for 2007 are incomplete and likely to go up as the rainy season during which most cases are reported is not here yet. Several districts, Karonga, Blantyre, Mangochi, Lilongwe, Machinga, Salima, Chikwawa, and Nsanje have Cholera outbreak every year. In general the northern region has relatively been free of cholera for the past three years but this year Nkhatabay and Nkhotakota already recorded outbreaks which have since been contained. The improvements have been attributed to widespread training of all health workers at all levels and improved supervision, communication and reporting, and intensified resource mobilisation.

[8] Ministry of Health, January 2007. Health Management Information Bulletin. July 20056 – June 2006

Figure 4. Reported Cholera cases 2001 to Mid. 2007



Progress in improving performance of national technical programmes

Systems for epidemic preparedness and monitoring have been put in place. A National task force on epidemic preparedness has been instituted. Districts report weekly to the central level and equipment (emails and faxes) have been provided to all districts to facilitate reporting. Quarterly supervision and data validation workshops are conducted and epidemic preparedness meetings and cholera outbreak post-mortem meetings have improved the monitoring of cholera epidemics.

However, despite such improvements, maintenance of emergency stocks of supplies to respond to epidemics is still dependent on discrete donations from UN agencies and NGOs. This may be a reflection of general supply shortages within the system. A mechanism to build up and maintain an emergency stock of supplies is necessary to be able to respond to epidemics timely. Apart from collecting data from reporting sites, facilities are now generally able to use data collected to plan responses independently while awaiting support from the central level. Human resource constraints at the central level have also hampered summarisation of data collected and linkages between HMIS and IDSR which collects information on cholera outbreaks need to be improved.

4.2 ACUTE RESPIRATORY INFECTIONS (ARI) IN CHILDREN UNDER 5 YEARS OLD.

The EHP intervention for ARI is case management of ARI in under-fives. The intervention includes improved recognition of ARI in the home and initial therapy provided at community level and proceeds through the referral system to include treatment of severe pneumonia at district and central hospital level.

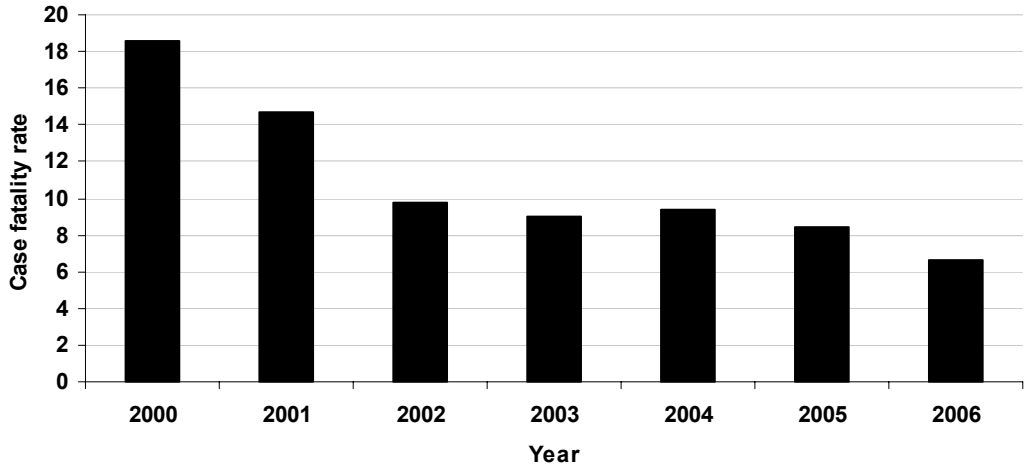
Progress made towards achieving output targets

An ARI policy has been completed and circulated. DIPs now include specific ARI activities as per agreed policy. All district hospital and CHAM paediatric units with service agreements have been equipped with oxygen concentrators for management of

severe pneumonia. All supervision and planned meetings have been conducted as planned. A review of nurses' training curricula was conducted, gaps identified and trainings conducted for nurse tutors. Underperforming districts such as Nsanje have had in service trainings for health workers conducted. A total of 1951 health workers have been trained in case management using the IMCI approach following decentralisation of training.

Progress has been made in reducing pneumonia case fatality rates at facility level. The case fatality rates in facilities implementing standard case management for pneumonia (all district hospitals and CHAM hospitals with service agreements) have steadily declined from 14.7% in 2001 to 6.6% by the end of 2006[9]. The general trend in CFR is illustrated in the figure below.

Figure 5. Trends in ARI case fatality rates *(ARI programme data)*



Reported cases of pneumonia per 1000 population declined from 298 per 1000 to 234 per 1000 in 2004 and 2005 respectively. In 2006, the reported rate was 378 per 1000 population[10]. However, DHS 2004 indicates that only 18% of suspected cases of pneumonia ended up in health facilities therefore the facility figures given above indicate only the tip of the iceberg for pneumonia cases[11]. The range of reported cases varied from a low of 167 in Nsanje to 764 in Nkhatabay. However, it is not possible based on available facility data, to verify whether the observed trends are a reflection of changing health seeking practices and reporting from the facilities or indeed changes in ARI disease burden. The observed reversal in improvements may be a reflection of little progress in interventions at the community level as emphasis seems to have focused thus far on the facility level.

Despite laudable improvement in case management at facility level which has led to improvement in case fatality rates, the progress at community level has lagged. According to the ARI Programme, most of the improvements in case management have been recorded in facilities previously supported by the Child Lung Health Project which hitherto has been restricted to public facilities, excluding CHAM facilities which serve a

[9] ARI programme data
[10] Ministry of Health, January 2007. Health Management Information Bulletin. July 20056 – June 2006
[11] Population based data for the review period is only available from DHS 2004 and MICS 2006.

significant section of the population in Malawi. While efforts are underway to implement similar interventions in those CHAM facilities which have service level agreements with MOH (presently 8 such facilities have already been included out of a planned 18 facilities)[12], it is likely that the majority of the underserved rural population in Malawi which is dependent on CHAM and private facilities still does not have access to improved case management. In any case, the service agreements have been restricted to select interventions in maternal and child health. By excluding other interventions and admission services, the poor who are meant to be beneficiaries of this arrangement, may be having poor access to effective interventions. To offset this, the ARI programme is lobbying for extension of Service Level Agreements to all CHAM facilities to effectively assist the rural masses.

Preliminary evidence suggests that over 50% of deaths at community level from suspected pneumonia occur without any contact with health workers (IMCI survey 2004). The present policy envisages HSAs identifying cases of severe pneumonia and initiating treatment before referral to health facilities. However, not many HSAs have been trained in the new guidelines and drug kits provided through IMCI have neither been provided widely enough nor consistently replenished to benefit the majority of the rural populations except in districts where the Child Survival and Development strategy[13] is being piloted.

Progress in improving performance of national technical programmes

The national technical programme has devised a policy document. The policy is linked to the proposed Accelerated Child Survival and Development strategy which is in final stages of development and of which IMCI at facility and community level is a part. Technical guidelines and policies are in place and supportive supervision is being provided to service delivery points. Monitoring of effectiveness of current guidelines is being done by assessing treatment failure rates of different treatments used in managing ARI. However there is need to complement this with laboratory studies.

The success of the national programme is also dependent on the success of its community component which is to be implemented through community IMCI. At present this component has not performed as expected and the roll out of interventions has been inadequate with only a few districts having oriented community health workers. The recruitment of HSAs who are the backbone of the community component has started but has been significantly delayed. At present the coverage of HSAs is estimated at only about 1 per 3000 population instead of the suggested 1 per 1000 population (Director, preventive Health Services, Personal communication).

Lastly, the programme depends on the national HMIS for its monitoring and evaluation. Problems have been cited about the quality of the national HMIS which render its usefulness to monitor implementation of the programme questionable. Presently, a parallel system to monitor performance is being implemented but this, just like the main interventions, only goes as far as the health facility level. To have the desired impact, the

[12] ARI Programme briefing.
[13] Ministry of Health (2007). National Strategic Plan for Accelerated Child Survival and Development in Malawi. Scaling up high impact interventions in the context of the Essential Health Care Package, 2006 - 2011

programme needs to know what is happening at the community level. Improvements in the HMIS are mandatory for the programme to monitor its performance effectively.

4.3 Nutritional deficiencies

The interventions to address nutritional deficiencies originally included growth monitoring and specific micronutrient supplementation. For severely malnourished children, inpatient rehabilitation is included in the EHP. Subsequently, community therapeutic care (CTC) and supplementary feeding for undernourished children have been added. The management of nutritional disorders has been integrated within normal clinical practice at facility level and IMCI at community level.

Progress made towards achieving output targets

Community Therapeutic Care (CTC) has been introduced and trainings conducted in most districts. To date about 50% of the districts are now running CTC programmes in 119 treatment centres using Ready to Use therapeutic foods (RUTF). This has led to improvements in outcomes for severely malnourished children and plans are underway to roll out implementation to all districts in a stepped up approach. However, support for nutrition rehabilitation units by clinicians remains very weak and may contribute to poor outcomes within these units.

Guidelines for therapeutic feeding, supplementary feeding, and interim guidelines for the management of acute malnutrition in adults and adolescence have been developed and disseminated widely. However, clear policies on HIV and infant feeding in terms of replacement feeding and nutrition management of HIV/AIDS have neither been clearly articulated nor included in the EHP.

With micronutrient supplementation, coverage for vitamin A supplementation was estimated at 92% in under-five children and 74% amongst post natal mothers at the end of 2006. About 97% of targeted children between the ages of 12 to 59 months were dewormed during the November 2006 Child Health Days campaign[14]. However, HMIS data for 2006 – 2006 indicates that just over a third (21%) of the eligible underfive year old children in the country received the expected dose of vitamin A[15]. Performance of districts was generally good with coverage rates over 80% in most cases but some districts especially in the northern region (Karonga and Nkhatabay) did not achieve good coverage. The reach of the interventions was improved through use of all health facilities as distribution points and in some cases door to door campaigns were conducted to reach as many targeted recipients as possible.

Exclusive breastfeeding rates continue to improve and the number of hospitals certified as baby friendly is also increasing. The numbers of underweight and stunted children have not shown much improvement from population studies. MDHS 2004 estimated prevalence of wasting, underweight and stunting at 5%, 22% and 48% respectively and indicate no significant changes over the previous decade. Figures from under-five clinics suggest declining levels of underweight among children attending under-five clinics from

[14] Ministry of Health (2007). Vitamin A Supplementation and deworming report for Child Health Days 20th to 24th November

[15] Ministry of Health (January 2007). Health Management Information Bulletin. July 2005 – June 2006.

a high of 21% in 2003/4 to 7.9% by December 2006 (HMIS). However, during the same period the number of children attending under-five clinics has also declined by about a third which renders interpretation of observed rates difficult. Regional differences are also apparent in rates of underweight with districts such as Mwanza recording high rates.

Delivery of nutrition interventions is integrated within the IMCI approach which potentially should improve reach of the interventions to most sections of the population. However, problems in institutional structures for delivery of the IMCI approach including persistent shortages of supplies and equipment, weak human resource base and poor coverage of community health workers are likely to result in inequitable distribution of interventions.

Performance of national technical programme.
Technical guidelines and protocols for the management of nutritional disorders have been developed and disseminated but there are still some areas that need clear policies especially in areas of HIV and nutrition and other micronutrient deficiency interventions e.g. zinc supplementation which are presently not included among the EHP interventions. Additionally, the technical programme lacks a clear strategic document to complement the POW in achieving its targets. Presently, annual implementation plans are not informed by the original EHP document which does not capture some of the changes that have been included in the course of the implementation of the POW. This has implications in mobilising resources for nutrition programmes both at national and district implementation levels. It is not envisaged that these changes should be included in the present EHP, but it is important to acknowledge them while concentrating those interventions which were prioritised at the beginning.

While integration with other programmes has been achieved e.g. with IMCI, the lack of a clear health sector nutrition strategic document means that specific nutrition interventions in these multisectoral approaches have not been clearly articulated; this may result in not achieving the stated goals of the technical programme. Additionally while most of the targets set in the technical programme documents are supported by evidence based interventions which have been included in the programme, some targets such as reduction of stunting levels by 50% in 5 years are not supported by planned evidence based interventions and appear overly ambitious and need revisiting.

The present plans are likely to impact especially at facility level but not at community level where most nutritional problems are found. Implementation of nutritional activities at this level is dependent on functional community structures which presently are not in place. General weakness of the health system in terms of supplies and equipment, procurement and human resources are likely to affect impact. Furthermore limited capacity of the national technical programme in terms of human resource capacity renders it difficult for the technical unit to adequately plan and monitor interventions (presently only 9 district nutritionists are in place to provide leadership in nutrition at district level). It is however encouraging to note that within the multisectoral national nutrition strategic plans, there are plans to improve the human resource dedicated to nutrition activities at the community level.

Additionally, being a multisectoral problem, impact of health interventions on nutritional problems without attendant improvements in other sectors is likely to have little impact. The cIMCI approach which is multisectoral may address some of these constraints.

4.4 Adverse Maternal and Newborn Outcomes

Achievement of MDGs 4 and 5 is among the key objectives of the POW. While Malawi is well on track for reaching and even surpassing its MDG 4 target of reducing Under-5 Mortality by two thirds of the 1990 level by 2015, prospects for realizing its MDG 5 target of reducing Maternal Mortality Ratio (MMR) by two thirds, between 1990 and 2015, are not so comforting. At 984/100,000 live births (RHU Annual Report for year 2006 - in table of indicators); Malawi's MMR is still among the highest in the world and well above the 620 per 100,000 recorded in the 1992 MDHS. Intensive and sustained effort will be required if MDG 5 is to be realized.

This high level of maternal mortality also impacts negatively on MDG 4, as Neonatal Mortality (NNMR is 31/1000 and IMR is 69/1000 live births[16]) accounts for nearly 45% of all infant deaths in Malawi, well above the 20%-25% generally reported for the country.

In response to this unsatisfactory situation and as a follow-up to the 1994 Cairo ICPD, the Government of Malawi created the Reproductive Unit (RHU) in 1997 with the mandate to coordinate the integration of all RH related activities into a comprehensive a coherent package.

Over the succeeding years the RHU elaborated the first Reproductive Health Policy for Malawi; this was updated in 2002 to be in line with the emerging EHP; developed strategic plans, service standards and guidelines, RH supervisory check lists and its own supplies and logistics management system.

Dissatisfied with the relative lack of progress in realizing any significant and sustained improvements in maternal and neonatal health, the RHU, in collaboration with UNFPA, WHO and UNICEF undertook a nationwide assessment of the availability, access, utilization and quality of Emergency Obstetric Care Services in Malawi. The report of this assessment was published in July 2005[17] and forms the basis of Malawi's Road Map for accelerating the reduction of Maternal and Neonatal Mortality[18], and from which the RH component of AIPs and DIPs now derive.

Progress towards achieving output targets

Undoubtedly, the most defining achievement in RH so far under the POW is the establishment of the evidence on the current status of RH services through the 2005 EmOC assessment and the resulting Road Map. The review team was informed that over 90% of the estimated total budget of the Road Map activities is already secured, with the entire envelope of the new ADB 4 program (in the form of grants) has been earmarked for responding to the findings of the EmOC review. CPs such as DFID, USAID, UNFPA, UNICEF and WHO have come in to assist mitigate the effects of the delayed conclusion of activation of the ADP 2 funds on the EmOC rollout plan. This concrete demonstration of commitment has helped to focus attention on the main

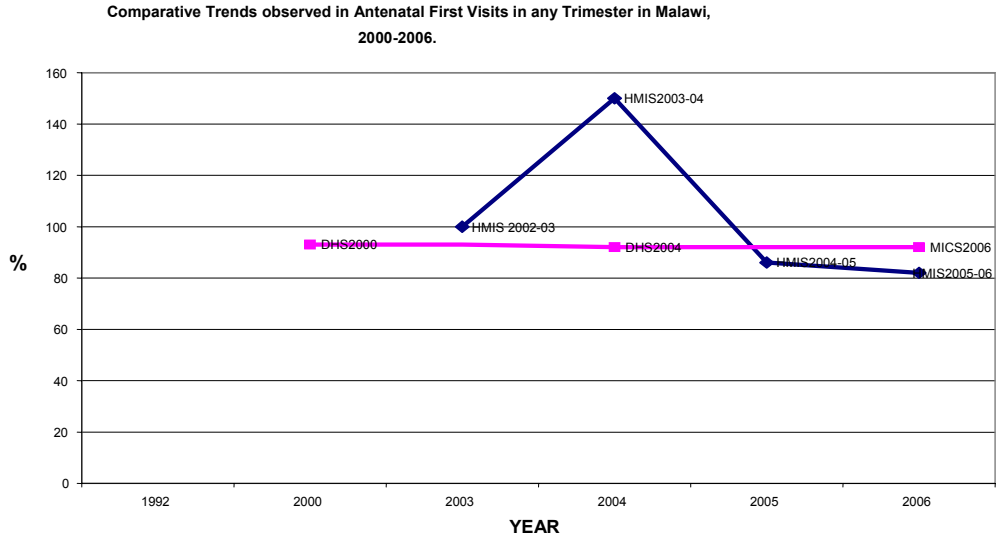
[16] Malawi Multiple Indicator Cluster Survey, 2006
[17] Emergency Obstetric Care in Malawi; report of a nationwide assessment; MOH, July, 2005
[18] Road Map for Accelerating the reduction of maternal and neonatal mortality and morbidity in Malawi; March 2007

constraints to achieving a sustainable reversal of the stagnating or worsening maternal and neonatal survival indicators.

Antenatal Care services have achieved near universal coverage (for at least 1 visit per pregnancy) for over many years now. The national coverage rate for first visit (in any trimester) for 2006-2007 FY was 82% compared to 86% in the first year of implementing the POW. The long-term trend based on successive DHS reports confirms a stable rate of over 90% consistently. Figure 7 compares these trends based on DHS and HMIS data sources. The differences are in part explained by the different denominators used for the two (HMIU have indicated intent to rectify this anomaly in 2007) and from possible under-reporting through the HMIS.

The chart however masks a situation of marked variation between districts, as well as some marked variation in performance in individual districts from year to year. These variations call for more detailed research by the RHU. The average number of visits per pregnancy is a commendable 3. Encouragingly, this national average was attained by 73% of all districts, while none achieved the national norm of 4 visits. Perhaps the RHU should now focus its attention on assuring delivery of quality ANC within these three visits, as there in good evidence that more does not equate to better in this regard[19].

Figure 6. Comparative trends in Antenatal First Visits in any trimester in Malawi, 2000-2006.



Source: HMIS Bulletin, July 2005/June 2006, MOH, Malawi

Delivery conducted by trained personnel is in stark contrast to the situation with ANC as just over half of mothers in Malawi (40%, HMIS Bulletin, 2005-2006 and 54%, MICS 2006) deliver under supervision by trained personnel (i.e. excluding trained TBAs in accordance with the international definition). There is as yet no indication that this

[19] WHO RHR reproductive Health Library / Cochrane Library, 2003 (3)

seemingly intractable problem is being influenced by the SWAp/POW, mainly as a result of the delays in releasing the ADB 2 funds earmarked for improving access to EmOC.

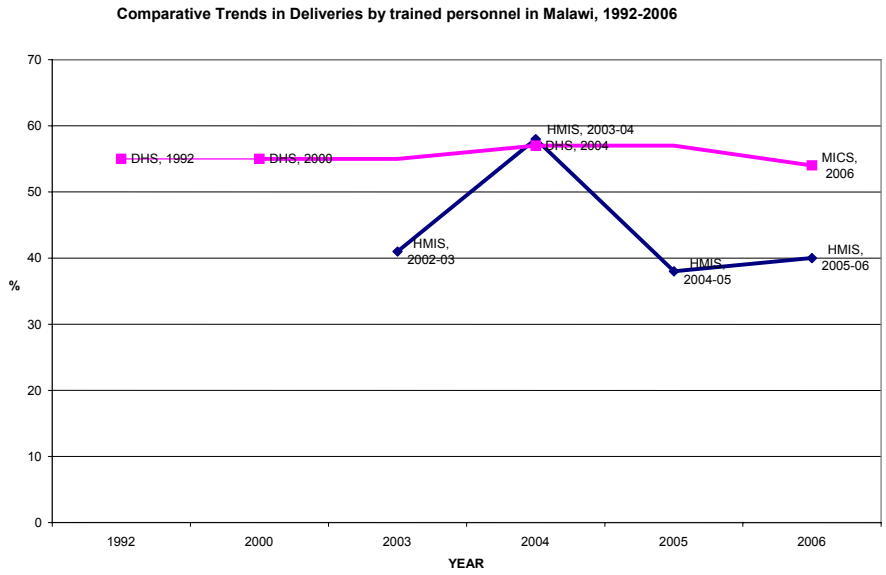
Values for this indicator have hardly changed over the past two decades with the MDHS rates hovering between 54% and 58%, identical to the MICS 2006 rate cited above. Here again, the January 2007 edition of the HMIS Bulletin (Figure 8 below) shows marked variation between districts, ranging from 26% to 66%. For the year under review in the Bulletin, the observation that Lilongwe and Blantyre fell under the 8 worst performing districts and below the national average rate of 40%, would suggest that there is more to institutional delivery than physical and financial accessibility or even technical quality. It has also been suggested the low coverage figures for Lilongwe and Blantyre may be due to non-inclusion of the large number of deliveries conducted in the two central hospitals located in these cities.

Of even greater significance is the EmOC assessment finding that only 2% of health centres (MOH, CHAM and private) met the basic criteria to be designated as appropriate to provide Basic Emergency Obstetric Care. Action taken since the EmOC review has resulted in significant improvement 31% at the time of the MTR (RHU presentation of its Annual Report for 2006/2007) with the additional 29 health centres now fulfilling the criteria for BEmOC; 48 Health Centres having already identified for upgrading to full BEmOC status. It is to be noted that the Malawi package includes care of the newborn which is conspicuously absent from the UN Signal Functions for BEmOC.

(The UN signal functions for basic EmOC are the capacity to: administer parentral antibiotics, administer parentral oxytocics, administer parentral anti-hypertensive drugs for pre-eclampsia and eclampsia, perform manual removal of the placenta, perform manual removal of retained products (e.g. MVA, D&C), and perform assisted vaginal delivery (e.g. assisted breech delivery, vacuum extraction).

The addition of Caesarean section and blood transfusion to the above 6 constitute the 8 signal functions for Comprehensive EmOC).

Figure 7. Comparative trends in deliveries by a trained person in Malawi, 1992 – 2006.



Source: HMIS Bulletin, July 2005/June 2006, MOH, Malawi

Utilization of **Post Natal care** services is at a low level of 19% nationally for first visit within 2 weeks of delivery, with the best performing district for 2006 Chitipa, achieving only 35%. This national average was well below the 34% and 31% recorded for the same period in 2004 by HMIS and DHS respectively. Less than 1% of neonates with complications received appropriate care. This low PNC utilization rate indicates significant missed opportunities for checking the health and welfare of mother and newborn, counselling mothers on infant and young child care, HTC/PMTCT, family planning, EPI, etc.

Use of modern family Planning methods maintained the steady increase recorded in previous MDHS reports, with 33% of currently married women in the age group 15 to 49 years having used modern contraception. Malawi's Total Fertility Rate remains at a high 6 children per woman. This does not contribute to a speedy reduction of maternal mortality and calls for intensified efforts in provision and use of modern methods of contraception.

The Central Program (RHU)
The Reproductive Health Unit has suffered severe under-staffing and long periods of instability resulting of the high turnover rate of technical staff assigned to the unit. It is surprising that they were able to achieve as much as they did during this period.

The RHU falls under the Directorate of Clinical Services and consists of a Deputy Director as head (the official designation for the head of RHU is Deputy Director), supported by 4 technical officers each responsible for defined areas of the programme's activities including maternal and newborn care, family planning, youth friendly SRH services, PMTCT, IEC and monitoring and evaluation, including maternal death audits. Because of the increased demands on the RHU during the intensive period of formulation of the JPOW, and EHP, the unit was reinforced by the addition of 3 long term TAs supported by DFID.

The HPU was thus able to complete basic tools including: the revised SRH Policy, the Road Map that incorporates the POW/EHP, Malawi RH Guidelines, the RH supplies and logistics management system (not being implemented), as well as undertaking the EmOC needs assessment exercise. The services of 2 of the 3 TAs ended in October 2006 at about the same period that the head of the unit left, as well as 2 of the national "counterparts" to the TAs. The RHU remained without a substantive head till the services of a national TA was acquired on contractual basis (with funding from WHO and UNFPA) as Acting Director and head of the unit; a situation that still prevailed during the time of this MTR. The program also has coordinators for each of the main components of its strategic plan at both district and health centre levels.

The mission encountered the frequent observation that the staffing constraints of the RHU were being aggravated by the continued engagement of some members of the unit in hands-on activities at the expense of fulfilling the unit's core functions of policy and strategy development, coordination of support and implementation activities of the many actors in SRH, monitoring progress and maintaining oversight of the program's activities.

Discussions with the Acting Director and senior members of the unit and stakeholders indicate continuing capacity gaps in the unit, particularly in the area of data management that would guide evidence based policy implementation.

A recent positive development is the reactivation of the hitherto dormant central coordination structures such as the transformation of the inactive RH Coordinating Committee into the SRH TWG and its various technical sub-committees. Although these new structures now reportedly meet regularly, the view has been expressed that aspects of their method of work have had the tendency of engaging in micromanagement rather than strategic advisory functions.

The recently approved structure and staff establishment for the RHU is reported not to have addressed the staffing constraints of the RHU; the same staff complement being retained. In view of the central role of maternal and newborn care and family planning in meeting many of the MDG health related targets, there appears to be a strong case for an internal reassessment of the staffing needs of the RHU, in spite of the recently concluded functional assessment of the MOH.

Conclusion
The EmOC assessment report, as well as recent trends in health outcome and impact indicators for maternal and neonatal survival paints a beak picture indeed.

Implementation of plans for strengthening district level MNH interventions with the primary focus on health centre level care has already commenced. The assurance of universal access to quality basic EmOC and the extension of maternal and newborn related services down to community and household levels are also in advanced stages of planning. An effective supportive referral chain for easier access by the rural poor to Comprehensive EmOC services at district and central hospital levels has also been initiated. All these critical interventions should be more speedily rolled out once the ADB funding begins to flow.

Introduction of the Service Level Agreements (SLA) with CHAM and strategies for mitigating the severe constraints imposed on MNH services by the chronic shortage of trained staff, especially those with midwifery skills, are also bearing positive results.

The determined response by the Government of Malawi and its Collaborating partners provide much realistic expectation that Malawi can and should get on track for achieving MDG 5 within the life span of the current POW.

4.5 STI and HIV/AIDS services

At inception of the POW, the main interventions for HIV/AIDS were VCT and condom promotion and distribution, nevirapine for prevention-of-mother-to-child-transmission (PMTCT) as a single mother-child dose given at delivery, management of opportunistic infections, and home based care. For other STIs, diagnosis and treatment was included within standard clinical practice. Anti-retroviral treatment (ART) for AIDS was subsequently included in the EHP as implementation of the POW progressed. The present interventions for HIV thus include HIV testing and counselling (HTC), promotion of blood safety, infection control, PMTCT, control and management of sexually transmitted infections (STI), prevention and treatment of opportunistic infections (including tuberculosis), the provision of antiretroviral drugs to patients with AIDS and Home Based Care (HBC) for AIDS patients. Both STIs and HIV are run in a vertical programme approach within the Reproductive health unit and HIV unit respectively.

In 2004 the MOH developed a 2 year scale up plan[20] for ART. The two year plan was subsequently developed into a 5 year scale up plan[21] and at the same time a similar plans for HTC[22] and PMTCT were also developed.

Progress made towards achieving output targets

National prevalence estimates indicate a stabilising of the prevalence of HIV over the past few years at 14%. Regional variations exist and more worrying is a general trend of declining incidence in urban areas and increase in rural areas which calls for intensifying prevention efforts in these areas. The MDHS2004 finding of low levels of comprehensive knowledge on HIV /AIDS among young people is also especially worrying. Considerable progress has been made in developing and disseminating national guidelines and training materials for the implementation of HTC, PMTCT, HBC, and ART for HIV-related diseases. Implementation of activities in each of these components has largely progressed well except for some problems in PMTCT and HBC which have not progressed as planned. The highlights for progress by end of 2006[23] are indicated below.

HIV Testing and Counselling (HTC).

- Cumulatively 351 static HIV testing sites had been established (57% managed by MoH), 72% of these were located in rural areas.
- 661,400 HIV tests performed (289,000 in males, 372,400 in females) of whom 20% were positive.
- Amongst the test positives, 97% were referred for care and support services
- 6% of tests were in children <15 years (35% of tests in children were positive). Most of these tests in children were done at central and district hospital levels with very few done at peripheral facilities.
- 39% of HTC sites had significant stock-outs of test kits in the year 2006.

Blood Transfusion Services

- 56 sites collected 68,300 units of blood for transfusion. Of these 36% were contributed by the Malawi Blood Transfusion Service (MBTS).
- 7%, 5% and 2% of the screened blood was positive for HIV, Hepatitis B and Syphilis respectively
- 20% of sites had significant stock-outs for HIV test kits
- 27% of sites had significant stock-outs for hepatitis B test kits
- 48% of sites had significant stock-outs for syphilis test kits

ART services

- 141 ART clinics (103 public sector, 38 private sector)
- 85,200 patients ever registered so far
- 46,400 patients newly registered during 2006

[20] Treatment of AIDS: The 2 year plan to scale up antiretroviral therapy in Malawi 2004 – 2005

[21] Treatment of AIDS: The 5 year plan to scale up antiretroviral therapy and good management of HIV related disease to HIV infected patients in Malawi 2006 – 2010.

[22] HIV testing and counselling: The five Year plan to Scale up HIV Testing and Counselling in Malawi. 2006 – 2010.

[23] Ministry of health (July 2007). Report of a countrywide surevy of HIV/AIDS services in Malawi for the year 2006.

- Cumulatively 61,430 alive and on ART versus a target of 60,000 at this time
- 71% and 70% alive on therapy at 12 and 24 months after initiation of ART respectively

HIV TB services
- 26,700 TB cases registered in 2006
- 17,000 tested for HIV (66% of registered TB patients)
- 11,700 HIV positive (66% of those tested)
- 11,500 started on Cotrimoxazole Prophylaxis Thearpy (98% of those testing positive)
- 11 TB sites (25%) with fully integrated routine HIV testing

Prevention of Mother to Child Transmission

PMTCT services have scaled up considerably during 2006: at the national level 26% of pregnant women at ANC have been tested for HIV and maternal doses of NVP dispensed at ANC are equivalent to 14% of all pregnant women estimated to be HIV positive. However, the scale up does not correspond to demand for the service and problems still exist. Effectiveness of PMTCT delivered at maternity sites is affected by the high proportion of home births in Malawi (40%) and sites with routine (documented) ascertainment of HIV status remain few. At the national level, HIV status was ascertained for only an estimated 6% of deliveries and fewer than 10% of HIV positive mother and their babies have received ARV prophylaxis at maternity sites. About 50% of the sites had extended periods of stock outs for nevirapine tablets in 2006 and lack of standardised documentation at clinics make estimation of PMTCT coverage difficult.

HIV in STI Clinics

The integration of HTC into STI clinics is still incomplete and this should be made a priority in 2007 and beyond. Given the lack of reliable routine data on HTC in these services, it is not clear how much the other STI services are used as entry point for other HIV services.

Other STIs

Sentinel surveillance data indicates declining prevalence of syphilis in the past few years and estimated national prevalence is quoted at 1.9%, range 0 to 10.8%[24].

Progress on impact

Cohort analysis indicates relatively good survival on ART program at over 70% at 2 years and the majority (over 95%) of patients on ART are said to be ambulatory thereby able to contribute to personal and national developmental activities. A significant proportion of those accessing ART are health workers who have consequently been able to return to work and contribute to provision of services some of which are to the underserved populations in the country and contributes to alleviating the critical human resource situation in the health sector. That notwithstanding, it has to be acknowledged that ART provision has also impacted service provision by drawing resources from other essential services to HIV/AIDS activities which are naturally resource heavy.

[24] Epidemiology unit data

However, the scale up of the biomedical response (the role of MOH in the national AIV/AIDS response) has concentrated in urban areas while rural the areas where most of the population live, have remained underserved. Additionally, the reach and intensity of interventions for pregnant mothers and children who are the focal beneficiaries of the EHP remains low. Where the poor have access to the urban centres where ART services are provided, transportation and other socioeconomic costs hamper access to these services.

Because the interventions are primarily facility based, there is wide geographical variation in terms of access. Disparities in HTC, PMTCT and ART delivery are emerging with some districts lagging behind and differences in terms of gender and socioeconomic status. Disparity in HTC delivery and uptake has been identified in nine districts in the Southern and Central regions that is correlated to the number of HTC sites per population. Similarly, a disparity in male HIV testing was identified nationally, potentially affecting ART treatment outcomes. For PMTCT, disparity in PMTCT delivery and uptake was identified in six districts in the South and Centre. This disparity, however, is not correlated to the number of sites per rate of pregnancy in these districts[25].

Additionally linkages between the HIV programme and other programmes e.g. TB programme are still weak (only 66% of TB patients are tested for HIV and uptake of ART among HIV positive TB patients remain relatively low). Similarly in terms of impact on morbidity and mortality, outcomes from ART programme appear to be better among private sector employees and those in the public sector (teachers, uniformed forces and health workers) compared to the rest of the population which may imply that the majority of the population who are not in these sectors may be experiencing relatively worse outcomes[26].

Performance of national technical programme

The national programme has over a short period of time scaled up HIV/AIDS interventions to commendable levels despite problems in some areas. This it has achieved by operating in a vertical manner and this may have been necessary at the start up. For reasons of sustainability stronger linkages with other directorates such as clinical (for ART services), nursing (for HBC), RHU for PMTCT, preventive (for HTC, Infection prevention and IEC) are necessary. Additionally, the scale up in the first few years has benefited from substantial input from technical assistants within the national technical program but doubts arise as to whether the TAs have built enough capacity for local staff to continue the work.

To improve access, training which had previously been centralised has been devolved to District health offices and use of lower cadre of health staff for delivery of services is being considered. Despite this, progress still remains low. Additionally linkages with other programmes such TB, other STIs, Skin and Essential Medical Laboratory services remain weak.

Clearly laid out strategic plans and guidelines have aided the programmes to mobilise resources but where these have been less clear progress has been hampered. The high

[25] National AIDS Commission, HIV /AIDS Impact Assessment Triangulation Report, June 2007
[26] National AIDS Commission, HIV /AIDS Impact Assessment Triangulation Report, June 2007

number of non-institutional deliveries means that innovative approaches using community based health workers may be required to achieve required gains in PMTCT delivery. Additionally, service delivery has not thus far corresponded to disease burden for HIV such that the scale up of interventions in HIV/AIDS need to correspond to disease burden and refocusing of efforts according to geographical and socioeconomic disease burden may be necessary.

Other STI's have been fully integrated in clinical service delivery and guidelines and protocols have been developed and disseminated. However, general constraints affecting all clinical service delivery also affect services for STIs. The national technical programme responsible for STIs which is based in the RHU seems not to have taken advantage of the improved resource base for HIV/AIDS to improve service delivery for other STIs. Presently screening for STIs at ANC still remains extremely low and the laboratory infrastructure has not benefited nor developed at the same pace as the delivery of the facility based HIV interventions.

Lastly, the core function of the HIV unit within MOH needs to be articulated. Presently it combines both policy formulation and some implementation of activities. While this may have been necessary at the beginning, the role of the unit in implementation of services needs to reconsidered to a more supportive than active role. It is expected that this will be reflected in the restructured MOH.

4.6 Malaria

Malaria remains the most common cause of illness and death in children under-5 and the most common reason for OPD consultation (40%) in Malawi. Malaria is reported to be the reason for loss of work amounting to 25 days per adult per year, with 28% of disposable income of the rural poor being spent on its treatment. When it is considered that 50% of the population do not seek care for Malaria in the formal health sector and that of these only 17% use the appropriate drug[27], this constitutes a significant drain on the economy and to Malawi's overall poverty reduction efforts.

The National Malaria Control Program (NMCP) elaborated its current Strategic Plan for 2005-2010 – *Scaling up Malaria Interventions, 2005* based on the malaria control policy and the SWAp POW. The mission of the program remains the attainment of a status where malaria is no longer of public health significance in Malawi, and the Goal being that of ensuring prompt an effective management of malaria at all levels of the health care delivery system.

The main interventions of the program are: prompt and effective case management; malaria prevention; including environmental and vector control measures, intermittent preventive treatment (IPT) for pregnant women and personal protection through the use of insecticide treated nets (ITN), and disease surveillance, epidemic preparedness and response. The last intervention in not included in the EHP.

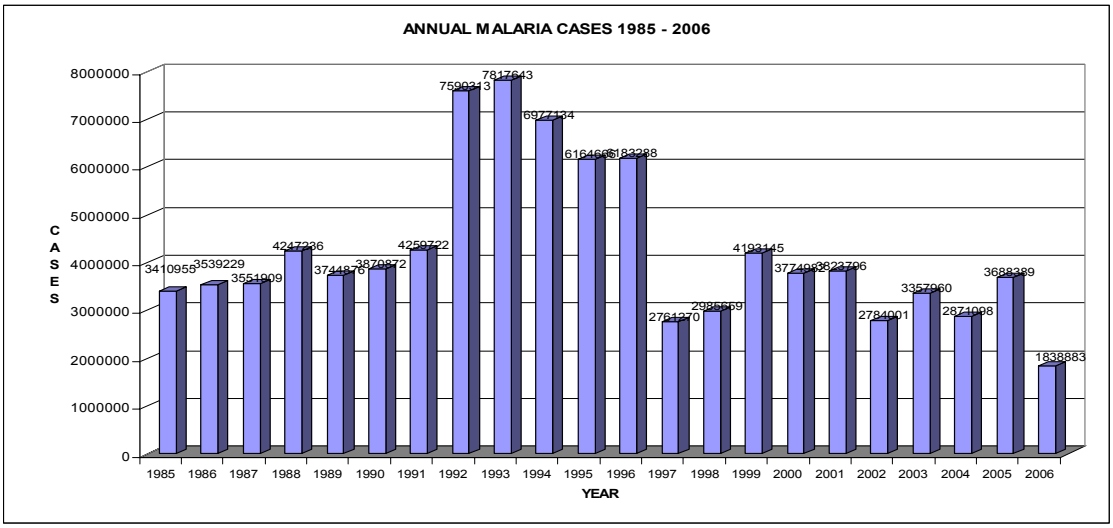
[27] Malaria Strategic Plan, 2005-2010 citing a UNICEF funded community based survey conducted by Kadzandira & Munthali in March 2004

Case management

Malawi is one of the first countries in the region to base its case management strategy on local research on the effectiveness of its treatment policy. Like most countries in the African region, Malawi depended on chloroquine as first line treatment for malaria from the inception of NMCP in 1984. This approach guided the change to Sulfadoxine-Pyrimethamine (SP) that was effected in 1993, as well as the recent change to Artemisinin based Combination Therapy (ACT) which will be implemented commencing November 2007. ACT is to be rolled out countrywide in a phased manner starting with district health facility level. In preparation for this exercise, NMCP has developed its comprehensive and scientifically up to date "Guide for the Management of Malaria" in July, 2007 as well as detailed manual for both the trainers and for trainees. Preparations for the TOT were in an advanced stage of finalization during the MTR exercise. The mission was assured that the order for the new first line drugs will be in country in good time for the change over date.

Progress towards achieving output targets

Figure 8 below illustrates the significant achievements in reducing the burden of malaria in Malawi. There has so far been a trend of substantial and sustained decline in the number of cases reported in health facilities countrywide. The 2006 HMIS Bulletin reports that over 50% of cases are in children under-5.



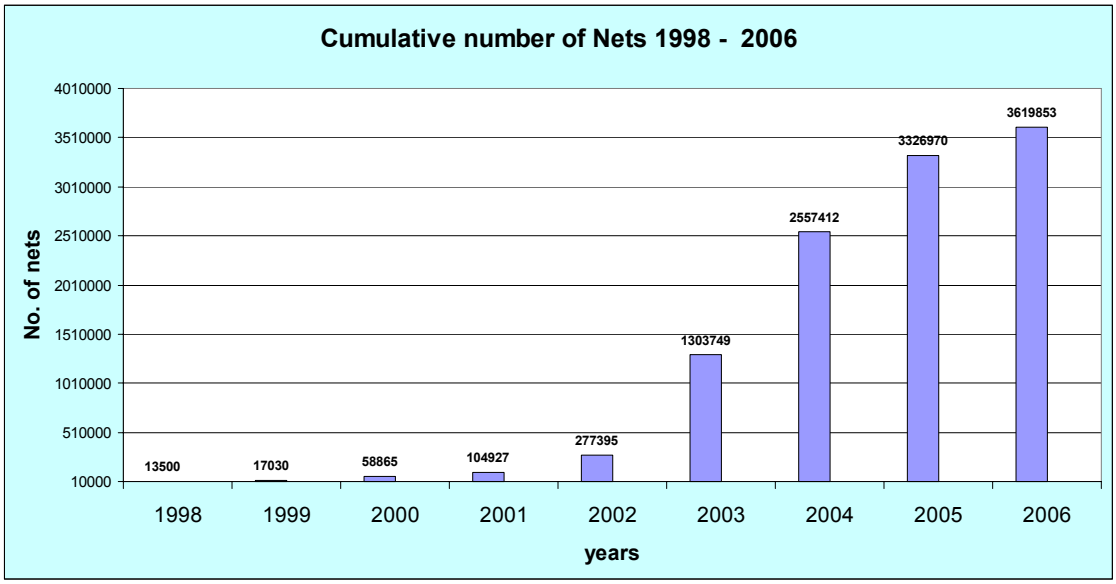
Source: MOH HMIS Bulletin, January 2007

Insecticide Treated Mosquito nets (ITNs)

Although the dramatic trend in cumulative number of ITNs distributed in the country and the proportion of Under-5s sleeping under ITNs continued to rise, if only slowly, these trends mask the still very low level of 15%. The outlets for ITN distribution have expanded and now include: community based distribution mainly by the HSAs that is to commence soon, private shops, the mother and child clinics including EPI, maternity wards and periodic mass distribution during the commemoration of special days. The mass distribution approach (facilitated by the new national policy of free-of-direct cost at service delivery points for pregnant women, nursing mothers and children Under-5) has increased the availability of ITNs for these groups at highest risk. The latest figure for

Under-5s sleeping under ITN quoted in the final draft version of "National Strategic Plan for Accelerated Child Survival and Development in Malawi, 2007" is 30%, demonstrating the effectiveness of the new policy and mass distribution strategy.

Should the current national stock-out of ITN continue for much longer, the trend depicted in the table below will likely revert to levels of 2003 at best. A contingency plan for an ad hoc mass distribution campaign as soon as the emergency order arrives, should be developed if any significant catch-up should be realized for 2007.



Source: HMIS and National Malaria Control Programme data

Intermittent Presumptive Treatment in Pregnancy (IPTp)

As pregnant mothers constitute the second group at highest risk from malaria, the national program also has intermittent preventive treatment or IPT as one of its main intervention strategies. Though we could not find an appropriate reference on the current state of IPT coverage, a 30% reduction in placental malaria parasite incidence is reported in the ACSD final draft strategic plan, suggesting effectiveness of the interventions targeting this group in particular; i.e. ITN and IPT. Evidence[28] of the seriousness of the combination of pregnancy, malaria and HIV needs to be taken note of by the implementing units, as it appears to aggravate complications in each of the components, as well as to wipe out the differences in susceptibility to severe malaria between first and higher parity pregnancies.

Indoor Residual Spraying (IRS)

NMCP has also adopted the use of indoor residual spraying (IRS) in defined circumstances using a non-DDT insecticide, at least for the short term. This new intervention is currently being piloted in 1 district.

[28] Malaria and HIV interactions and their implications for public health policy; WHO Geneva, June 2004

Malaria morbidity and case fatality
Despite these intervention, there was a large increase in the proportion of Under-5s (95%) affected by malaria in 2006, an increase of 21% over the preceding year. HMIS rightly flags the need to investigate this phenomenon to determine if it was due to increased utilization of health facilities for malaria or a need to accelerate the distribution and **use** of ITNs by this group.

The inpatient malaria case fatality rate in hospitals also increased from the previous year at 0.6/1000 and 0.5/1000 respectively, the national average rate for Under-5s was 2/1000, 30 times higher. The new malaria drug policy with an ACT agent (Artemether-Lumifantrine or LA) replacing the now ineffective SP as first line medicine for treatment of simple malaria should contribute significantly to reducing the malaria case fatality rate in all age groups.

The National Malaria Control Unit
The National Malaria Control Program was established in 1984 and is under the Directorate of Preventive Services of the MOH. The Unit is physically located within the Community Health Sciences complex.

The central program has a slim structure with an Assistant Director as Program Manager, supported by a Deputy and an entomologist. The unit is however extended through the Zonal Malaria officers (1 per Zonal support office or 2 in the larger districts; and the District malaria control coordinators.

The Unit is reported to have been managing very well because of the broad-based Roll-Back Malaria partnership they have been able to establish and sustain. The membership of the RBM partnership is reported to be both vibrant and committed. Its membership includes most of the key malaria stakeholders and funding partners. It also has various technical and coordination structures including the high level National Malaria Advisory Committee, the interagency coordination committee (ICC) which is made up of senior officials of Government, the funding partners, implementing partners and NGOs; the National Malaria Task Force; Technical Working Groups - one each for case management, training and logistics and IEC. There are also other formal coordination structures/mechanisms for collaboration with other national programmes, e.g. SRH, HIV/AIDS, the HMIU under the Malaria Booster project in the area of M&E and research. The NMCU also collaborates closely with various research institutions including the College of Medicine's Malaria Alert Centre. All structures and mechanisms are reported to be working effectively.

The Unit maintains its own program specific M&E systems that support program management and monitor key Abuja and RBM indicators. It operates/supports sentinel sites for the continuous monitoring of level of effectiveness of first-line anti-malarial drugs and for forecasting of trends. NMCP undertakes its own forecasting and quantification for procurement of essential commodities (e.g. Anti-malarial medicines, ITNs, rapid diagnostic tests, etc) by Central Medical Stores, while CMS handles procurement and supplies chain management.

Its main challenges result mainly from: the current human resources crisis that severely constrains implementation; the supply chain management system within which shortages of essential commodities, e.g. there were no ITNs in the country during the

period of this review; poor, incomplete and untimely receipt of data which hinder more effective program management and epidemic preparedness.

4.7 Tuberculosis

The National Tuberculosis Control Program (NTP) is one of the longest surviving MOH technical programmes in Malawi, having been established since 1964. As with Malaria and IMCI, NTP is housed in the Community Health Sciences complex.

With the advent of the AIDS pandemic, Malawi, like most countries saw an explosion of TB with its reported cases increasing five-fold within the past two decades. Reports indicate that 60% to 70% of new cases of TB are also infected with the HIV virus.

NTP is in the first year of its new strategic plan – Five-Year development Plan II, 2007-2011 – under the title "Towards Sustainable and Equitable Tuberculosis Control". The plan responds to the Malawi health SWAP/POW, as well as the August 2005 Maputo African Union (AU) Health Ministers' Declaration on "TB as an emergency in Africa".

Among the main expected outputs of the Plan are:

- Health seeking behaviour of TB suspects positively influenced through effective health promotion and communication
- Equitable case finding and good diagnostic practices improved and maintained
- Strengthened NTP capacity to effectively deliver TB treatment and TB/HIV care
- National and international partnerships increased and maintained
- Relevant surveillance, surveys, and operational research in TB control conducted and results disseminated
- Institutional management and governance arrangements
- Monitoring and evaluation.

Progress towards meeting output targets

The EHP/SWAp monitoring matrix includes 2 TB indicators, namely, TB Case Detection Rate and TB Cure Rate. Data for the TB case detection rate awaits the national survey planned for later this year. Some indicative relevant TB program performance indicators for Malawi are[29]:

1) TB Cure rate was 76% at end 2006 compared to 74% 2004 baseline and 76% for 2008 target
2) TB treatment success rate 78% in 2006 against program target of 85%
3) Case defaulter rate was a low 3%
4) Treatment Failure rate was 1% - consistently one of the best in the region
5) Case fatality rate was high at 17% - co-infection with HIV a contributory factor
6) Multi-Drug resistant TB – unknown but inferred to be low from the low defaulter and failure rates.

Other positive achievements include:

- NTP has developed a comprehensive development plan which is better aligned with the EHP, POW and SWAp

[29] Five-year Development Plan, 2007-2011, NTP, MOH Malawi, 2007

- A manual for providing guidance to managers and service providers on all aspects of the programme's activities
- A comprehensive Communication strategy and plan for further expansion of community DOTS using the HSA cadre and extension of TB diagnostic services to Health centre level (under the project called "Universal Access to TB Diagnosis") has been developed
- An active collaborative program with HIV/AIDS unit is addressing the issue of dual infection, and an increasing number of TB patients are undergoing HIV testing and ART, although access to ART by TB patients is reported to be well below the desired level. Similarly, VCT centres are testing HIV positive individuals for TB screening
- Has various initiatives or projects to address new and difficult areas such addressing "TB hot-spots" in Urban slums and congregate settings such as the prisons where the incidence of TB is 10 times higher than the national average
- A joint policy on TB Control in Prisons has been developed and signed by the Secretaries for Health and Home Affairs respectively. Collaboration for strengthening the Prisons health services on TB prevention and case management is being implemented by MOH/NTP, Ministry for Home Affairs, Malawi Prison Services Authority, Zonal Offices and the Office of the Director of Public prosecution
- Public-Private-Mix for expansion of DOTS and improvement of standards of practice in the private sector and informal sector is being pursued
- The TB support and supervision system we observed in the field including collection of sputum specimens and replenishing drug supplies and support to the community DOTS clients was impressive
- Supports and collaborates with a national TB Media Network
- An institutional culture of hard evidence guiding policy development and decision-making was clearly evident.

The National TB Control Unit

The national TB Control Unit enjoys the status of a Directorate with the Director as Program Manager. NTP has a staff complement of 18 with an extensive network of officers and coordinators at zonal, district and health centre levels. Directly under the Director are the Deputy Program Manager and the Research Coordinator. The Deputy Program Manager is responsible for areas such as liaison with Zonal support offices, case finding, diagnosis and treatment, human resource development, M&E. The Research coordinator has responsibility over new knowledge research, recording and reporting, data management, care and support for TB/HIV AIDS patients

The unit also has various coordination structures including TWGs and subgroups, as well as the Zonal Offices TWG which all meet regularly.

We found the Unit well organized and managed with ready access to data and information needed. The program is working efficiently and meeting most of its planned targets. Its current constraints revolve around weaknesses of the Pillars of the POW especially supplies and personnel. There is some anxiety about how the new funding arrangements for TB through the SWAp will evolve.

4.8 Schistosomiasis and Soil transmitted helminths.

The main interventions in this area are environmental management together with information, education and communication (IEC) on behavioural change, presumptive

treatment of urinary or intestinal Schistosomiasis and periodic deworming of the school aged population. In areas where the prevalence exceeds 50% of the general population, mass treatment in the school-age population is recommended.

Progress made towards achieving output targets

A strategic plan for the period of the SWAP POW has been developed and disseminated and is informing the programme activities. In collaboration with the School Health and Nutrition Programme of the Ministry of Education (MoE), the CHSU, DHO and other donors conducted a nationwide school health baseline survey in 2006 to establish baseline prevalence and intensity. Based on these findings, District Health Offices (DHO) have now started including Schistosomiasis control activities in their annual DIPs and drugs for the treatment of Schistosomiasis are generally available most of the time. However, general conditions affecting drug procurement and availability at the CMS have resulted in periods of stock outs of necessary drugs.

Inclusion in the EHP has raised prominence of the diseases such that now most districts have identified focal persons for the disease who are spearheading efforts for the control and treatment of the diseases. Through the DIPs, training of staff in diagnosis and case management, vector control, IEC and sanitation and safe water have been conducted in almost all districts. Annual mass chemotherapy activities have been implemented in most districts. In terms of deworming for soil transmitted helminths, a total of 1 615 569 children aged 12-59 months were targeted and 1 684 408 were actually de-wormed in the last campaign in November 2006 during Child Health Days with over 97% coverage in all regions. The Child Health Days are planned to be conducted every half year but the activity for this year has not yet been done which may affect progress in control activities. The implementation of the Child Health Days has potential to ensure equity in access as all service delivery points and some door to door campaigns are conducted in this approach.

According to the programme managers, improved funding through SWAp has resulted in better supervision of program activities. This is in contrast to the pre-SWAp era where by control activities were conducted in a vertical manner from the central level which itself was inadequately funded thereby hampering control activities.

While no formal surveys have been done, anecdotal evidence from districts implementing school health and nutrition programmes suggest improving haemoglobin levels in treated populations, increased school attendance following deworming campaigns and decreased prevalence of disease in some districts. A formal assessment of the strategy is planned for 2009. A school Health and nutrition baseline survey done in 2006 however shows high disease burden and poor knowledge among school going children. Three out of four (74%) school-aged children 8-10 years had heard of bilharzia, and of those who knew about bilharzia, 84% identified blood in urine and 28% identified pain when urinating as symptoms of infection. Half of school-aged children (49%) knew that they should stop bathing in the lake or rivers to prevent transmission, although 20% did not know methods of prevention. About half of school-aged children (46%) reported ever having bilharzia, with significant differences by sex (52% for boys, 40% for girls), and geographical locality. Prevalence of Schistosomiasis was estimated at 19%.

Almost half (47%) of school-aged children 8-10 years who were interviewed had heard of intestinal worms. Modes of transmission (45%) and prevention of intestinal worms

(32%) were not known by many children. Overall, only 9% of school-aged children 5-10 years had some kind of worm infection (hookworm 4%, round worm 2%, schistosoma mansoni 2%, schistosoma haematobium 0.4%, and tapeworm 0.2%).

The control activities are integrated at the district level and adequate linkages with all stakeholders have been established. However, development and dissemination of IEC materials has not progressed as well. Most districts apart from those where there is active donor input do not have IEC materials. Since no evaluation surveys have been done it is at present difficult to assess whether the activities laid out in the strategic plans have improved the situation.

Performance of national technical programmes

The national programme has in general performed well and effective strategies have been developed to achieve the goals of the programme. A national plan of action for the control of Schistosomiasis and soil transmitted helminths for the years 2004 to 2008 has been developed. The plan envisages multisectoral collaboration with the Ministry of health and Ministry of Education as key lead partners in implementation of the strategy which is coordinated at the district level with support from the central level. To date some progress in mapping disease burden and instituting preventive strategies have been realised. Assessment of progress is however hampered by lack of data on the chosen M&E indicators. Despite plans for annual surveys, the baseline survey for the programme only happened in 2006 and at the time of the review it was difficult to assess whether progress against the set milestones is being achieved.

One element which may become a substantial issue is the impact of the governments drive to promote irrigation farming which will likely have an impact on the disease burden but has not been adequately addressed in current strategic plans. The rapid increase in irrigation schemes will result in creation of static water bodies and transmission points attractive to school aged children which if not accompanied by proper health education may worsen the disease burden. More collaboration with Ministry of Irrigation in this regard to devise strategies to reduce the potential negative impact of irrigation on disease burden is therefore recommended.

4.9 Common eye, ear, and skin complaints

Together, common eye, ear and skin infections accounted for 11% of outpatient attendances in Malawi in 2005 - 6[30]. The EHP has included the most common of these for intervention and focuses on conjunctivitis, acute Otitis media in children, and scabies.

Progress made towards achieving output targets

The provision of these services is integrated in usual clinical practice and at facility level information on disease burden within facilities is collected. However, this information is not usually independently summarised at central level within the HMIS system. As such, it is presently difficult to ascertain trends in impact of the EHP stated interventions in reducing morbidity and mortality from these conditions.

[30] Ministry of Health. (January 2007). Health Management Information Bulletin. July 2005 – June 2006

The EHP document has not elaborated the strategies to reduce disease burden and mortality from these conditions and in essence these conditions have received little attention. Focal person exists at the central level for ophthamology services and skin conditions but not for ear conditions.

A draft national plan for eye care has been developed[31] and a national blindness prevention task force has also been instituted. The plan focuses on the control of major blinding conditions (which are estimated to afflict 1% of the population and of which 80% are due to preventable conditions) which are not within the EHP which only focuses on treatment for conjunctivitis. As such, the draft Eye Care Plan does not necessarily have the same focus as the EHP. This in itself is not a bad idea but has the potential to sideline the implementation of the selected EHP intervention if not articulated within the plan.. Most eye conditions are treated at all service delivery points and specialised units. However, although the EHP document envisages community level interventions, very few primary eye care workers have been trained and standard curriculum for their training has not been developed. To have any impact it is necessary to upgrade the HSAs curriculum to include management of eye conditions at the community level. However, caution needs to be exercised on the workload of the HSAs. By not clearly articulating community level interventions for eye conditions in the EHP, Districts have not moved forward to include to a substantial level resources for eye conditions.

Similarly, no specific plans are presently in place for skin and ear conditions; as such coordination of interventions for these conditions is lacking. Dermatology officers exist in some districts but they are not available in all districts as focal persons for skin conditions. Without this it is quite likely that not many resources within the DIPs are being put forward for these conditions. It is important that baseline figures and monitoring and evaluation of these services are included otherwise it is difficult to evaluate the impact of the SWAp on delivery of services for these conditions.

4.10 The Zonal teams and the support supervision chain

The Malawi Government came up with the idea of the Zones, which operate as outposts of the Central Ministry following abolition of the Regional Health Offices to bridge the gap between the central ministry and the districts. The core function of zonal offices is to coordinate supervision so that the districts shall develop enough technical capacity to effectively supervise and make corrective decisions where necessary.

Progress to date

To-date, all the five zonal offices have become operational. The zonal offices are staffed with a Zonal supervisor, a technical programme manager, a Monitoring and Evaluation manager, an administrative assistant and a driver. The zonal supervisors are based within the catchment area of their zones and operate mainly through:

- Use of the integrated supervision checklists (including Red Flag List for drug availability)
- Zonal monthly visits to the district facility and randomly selected health centres (with the aim of building capacity while at the same time ensuring compliance on use of the integrated supervision checklists)

[31] Ministry of Health, National Plan for Eye Care, 2005 - 2010

- Instant feedback and reporting at the next visit
- facilitating supervision by DHMTs and encouraging local solutions to problems
- Exchange supervision visits between districts being encouraged to offer learning opportunities
- Synchronization of DHMT and zonal supervision schedules
- Quarterly zonal M&E Review meetings.

The Zonal offices have been very instrumental in ensuring that the policy direction of the Ministry (with respect to EHP and POW) is effectively implemented in the districts. Some of the notable progress that the zonal offices have assisted in making is:

- Ensuring that the districts understand the current policy direction of the Ministry of Health
- Rolling-out of provision of EHP services (from concentration at district level to health centres)
- Rolling-out of infection prevention practices from the district hospital to the periphery
- Emphasising the ownership of data and its use in decision making (institutionalisation of quarterly HMIS/DIP reviews)
- Proper and systematic infrastructure development agenda for the districts (in order to provide an enabling environment)
- Implementation of a package of incentives e.g. locum, relief and upkeep (these have been harmonised within the zones to avoid migration of staff to districts perceived to be of greener pastures)
- Ensuring the development of a proper transport policy/ guidelines (realising that transport expenditure constitutes a bigger share of total district ORT)
- Harmonisation of management structures at district level in the zone (e.g. DHMT, Hospital Advisory etc.).

The original plan was to also have a liaison officer at the central level within the planning department to oversee the roles of the zones as it was envisaged that the zonal supervisors would have to relate to different directorates as well as disease technical programmes and senior management at MOH headquarters. To date, such a position has not been established. This arrangement has to some extent created a disjoint between the DHMTs and the central ministry as well as between the zones and the central ministry and needs to be addressed.

5. RECOMMENDATIONS

Recommendation	Who is responsible	Suggested Action	What steps to take to meet recommendation
Revise content of EHP to reflect organic changes which have taken place during implementation	MOH/EHP TWG	Programmes to submit strategic plans that are in line with the POW and highlight deviations or suggested inclusions to original EHP document. Specifically • Malaria to include new drug policy • Nutrition to include CTC and develop a strategic plan specific for the health sector • Leprosy and Skin diseases programme to develop a multi year plans of action for achievement of the targets of the POW. • Finalise the draft eye care plan and ensure that it is in tandem with the EHP • HIV unit to include ART delivery and costs in the EHP	• MOH to ensure that EHP TWG meets. • EHP TWG should then revise the EHP content to reflect and consider suggested changes from the disease technical programmes. However, no new interventions should be considered at this time until the present ones have been implemented to avoid dilution of the implementation. • MOH to assure coordination with the UNICEF proposed EHP review and costing exercise.
Need to strengthen HMIU	MOH	Plans are already under way to revamp the HMIU	• MOH to speed up procurement processes which are delaying the review of the HMIU • Fill vacancies in HMIU (HRD)
Strengthen community component of the EHP	MOH	• Train more HSAs (being done but needs to be rolled out substantially to also include the proposed female HSAs). This activity should be complemented by a review of the workload of HSAs in line with new	• Revise HSA curriculum to reflect their new roles especially with respect to roles in maternal and newborn health

		responsibilities and present establishment numbers. • Improve deployment of staff to health centres to meet minimum EHP requirements	
Address equity of service delivery	MOH	DHOs and Programmes to develop plans to ensure their interventions reach vulnerable populations	• Consider expanding service agreements • Implement the proposed internship programme for health trainees • Redirect roll out of HIV response based on disease burden
Improve M&E of the EHP	MOH	There is need to develop sentinel surveillance sites to monitor progress in the performance of the health system	MOH to discuss with COM/UNIMA and other research groups whether they could take these tasks with support from MOH. Recruit more staff for Epidemiology unit to improve IDSR (presently only two members of staff!)
Bridge the existing disconnect between the Central Hospitals and Zonal & DHMTs	MOH	Establish formal link between the three through mandatory quarterly meetings to be convened by the head of Zonal Support team.	Review implications of bringing the Central hospitals under the mandate of the Zonal team; Secretary for Health to issue appropriate directive for quarterly joint meetings of the three with written reports copied to him.
Strengthen staffing of the RHU over the duration of current POW and encourage its core staff to concentrate on RHU core functions	Secretary for Health & Director Clinical Services	Second appropriately qualified staff (from MOH or other related institutions to RHU or Reconsider restoring TAs in light of the newly approved structure	• re-examine staffing needs of RHU • procure needed TA • reinforce SRH support personnel at Zonal and district levels • encourage central RHU staff to focus on their core functions
Strengthen supervisory role of zonal offices	Director of Planning	Provide Liaison Officer for zones	HR to deploy a liaison officer for zones

6. ATTACHMENTS

6.1`. MOH-HMIS SWAp Progress Indicator Matrix: Malawi Health Sector -Wide Approach Programme of Work
Progress made by the Districts on Monitoring, Evaluation and Research Indicators – Nov. 2004 – Dec. 2006

Mid-term Review: September 2007

Level	*Indicator*	Data Source	Baseline	Target for 2005-06	Progress made in 2005-06	Target for 2006-07	Progress made in 2006-07	Target for 2007-08	Target for 2010	Comments
GOAL										
Reduced incidence of illness/ premature death	- IMR	DHS (NSO)	76/1000(2000 -2004)	-	-	-	-	-	48/1000 by 2011 (MGDS)	To be measured in 2009
	-U5MR	DHS (NSO)	133/1000(200 0-2004)	-	-	-	-	-	76/ 1000 by 2011 (MGDS)	To be measured in 2009
	- MMR	DHS (NSO)	984/100,000 (2000-2004)	-	-	-	-	-	560/100,000 by 2011 (MGDS)	To be measured in 2009
	- HIV prevalence among 15-24 year old pregnant women	ANC Sentinel Surveillance (MOH)	14.28% (2005)	-	-	<14.28%	N.A.	-	<12% by 2011 (MGDS)	Results from 2007 Sentinel Surveillance awaited
	-Life expectancy (at birth)	Census/NSO	40 yrs (NSO, 2005)	-	-	-	-	42 yrs.	45 by 2011 (MGDS)	To be measured in 2008 Census
Objective 1:										
Increased utilization and effectiveness of EHP and other services	- OPD service utilization	HMIS (HMIU)	800/1000 population (HMIS 2004-2005)	850/1000 population	1100/1000 population (HMIS 2005-06)	900/1000 population	918/1000 population (HMIS July-Dec '06)	>1000/100 0 population	>1000/1000 population	
	-Proportion of 1 year-old children immunized against measles	EPI	82% (EPI 2005)	85%	82% (EPI 2005-2006)	85%	79% (EPI Jan-Dec '06)	83%	90% by 2011 (MGDS)	Coverage was particularly low in Nov. & Dec '06

	- % surveyed population satisfied with services (by gender and rural/urban)	SDSS (MHEN)	To be established in 2006	Baseline established	MHEN presented report without measuring the indicator	Baseline established	MHEN carrying out the survey in 2007, results awaited	Baseline to be established	> Baseline	MHEN received technical inputs from MER TWG for 2007 survey
	-CPR (modern methods)	DHS (NSO)	28.1% (DHS 2004)	-	-	-	-		40% by 2011 (MGDS)	To be measured in 2009
	-Proportion of births attended by skilled health personnel	HMIS (HMIU)	38% (HMIS 2004-2005)	40%	40% (HMIS July-Dec 2005)	41%	41% (HMIS July-Dec '06)	42%	75% by 2011 (MGDS)	Assumption is that all institutional deliveries are conducted by skilled health personnel
	-% of pregnant women and children who slept under an insecticide treated net (ITN) the previous night	DHS (NSO)	14.7% pregnant women 14.8% children (DHS 2004)	-	-	-	-	-	60%	To be measured in 2009
	-% of children under five years of age with fever in the preceding two weeks who received antimalarial drugs the same/next day	DHS (NSO)	45.5% (DHS 2004)	-	-	-	-	-	60%	To be measured in 2009
Objective 2:										
Increased availability of quality EHP services	- EHP coverage (% Facilities able to deliver OPD, Imm., FP & mat. services and having 2 Medical Asst./Cl. Officer /Doctor , 2 Nurse/ Midwife & 1 H.A.)	Facility Survey	9% (JICA study 2002)	15%	Not measured	15%	To be measured in 2007-08	-	40%	Facility survey to be carried out in 2007/2008

Objective 2 (contd.): Increased availability of quality EHP services	- TB detection rate	Prevalence Survey (NTCP)	40% (WHO 2004)	Prevalence survey planned for 2007	-	-	-	Prevalence survey planned for 2008-09	70%	Prevalence survey delayed for want of funds
	- TB cure rate	HMIS (HMIU)	74% (HMIS/ NTCP, 2004-2005)	75%	73% (HMIS/NTCP, Jan-June 2005)	75%	77% (HMIS/ NTCP, Jul-Dec 2006)	76%	85%	On target
	-% of HCs offering basic EmOC services	HMIS (HMIU)	2% (2005, EmOC survey)	25%	Measurement made difficult by lack of proper definition	13.4% (74 targeted out of 552 facilities)	4 % (22/552) (reports from DHOs at MYR Apr 07)	15%	50%	Delay in definition delayed target setting. External reviewers reported 20% coverage at MTR.
	-Doctor/population and Nurse/population ratios	HRH M&E database	1 doctor /62,000 pop (2005) 1 nurse/4,000 pop (2005)	1 doctor /60,000 pop 1 nurse/ 3,900 pop	1 nurse/ 3,653 pop	1 doctor /60,000 pop 1 nurse /3,900 pop	1 doctor /44,453 pop 1 nurse/ 3,653 pop	1 doctor /42,00 pop 1 nurse/ 3,500 pop	1 doctor /31,000 pop 1 nurse / 1,700 pop	Presumption is all those registered (3,477 nurses and 287 doctors/ specialists) are continuing to work in the country
EHP Outputs										
Community awareness and access to services increased	-% of population residing within 5 km of a health facility	GIS Mapping	46% (EHP document, 2004)	55%	Not measured	55%	To be reported by DHOs	55%	85%	To be undertaken in 2007
	-% of monthly drug deliveries monitored by Facility Health Committees	HMIS (HMIU)	To be established in 2006	BE	59.59% (reports from DHOs at MYR Apr 06)	BE	58% (321/552) (reports from DHOs at MYR Apr 07)	60%	85%	
	-% of pregnant women starting antenatal care during the first trimester	HMIS (HMIU)	7% (HMIS 2004-2005)	10%	6% (HMIS 2005-06)	10%	6% (HMIS July-Dec '06)	7%	20%	

	- Condom use at last high risk sex (with non-marital or non-cohabiting partner)	DHS (NSO)	30%women 47%men (DHS 2004)	-	-	-	-	-	35%women 55%men	To be measured in 2009
	- # of people alive and on treatment (HAART) at the end of each year	HMIS (HMIU)	30,000 (HIV Unit, December 2005)	60,000	85,001- ever started 61,430 (72%) alive (Dec'06)	60,000	59,980 alive and on treatment (Country-Wide Survey of HIV / AIDS services - 2006)	70,000	208,000	Calendar year 2006 Survey report published in July 2007
	-# of ITNs sold/distributed in the country (annually)	HMIS (HMIU)	1,323, 557 (NMCP, 2004)	1,500,000	1,234,000	1,500,000	1,324,921 (reports from DHOs at MYR Apr 07)	1,500,000	1,800,000	On target
	-% of under five children with symptoms of ARI and/or fever in the preceding two weeks for whom treatment was sought from a health facility/provider	DHS (NSO)	19.6% (DHS 2004)	-	-	-	-	-	30%	To be measured in 2009
	-% of under five children with diarrhoea in the preceding two weeks who received oral rehydration therapy	DHS (NSO)	70.1% (DHS 2004)	-	-	-	-	-	85%	To be measured in 2009

	-% of young women and young men aged 15-24 yrs with comprehensive correct knowledge about AIDS	DHS (NSO)	23.6% women 36.3% men (DHS 2004)	-	-	-	-	-	50% women 50% men	To be measured in 2009
	-% of men who do not know any signs or symptoms of pregnancy complications	DHS (NSO)	64.8% (DHS 2004)	-	-	-	-	-	40%	To be measured in 2009
Pillar 1: HR										
Staffing norms obtained at all health facilities	- % health centers with minimum staff norms (having 2 Medical Asst., 2 Nurse/ Midwife and 1 Health Asst.)	HMIS (HMIU)	23% (2002)	25%	19.42%	25%	-for nurses= 40% (220/552) (reports from DHOs at MYR Apr 07)	-for nurses= 50% (276/552)	85%	Districts reported only on facilities with nurses/midwifes
	-# students graduating from health training institutions (category-wise)	HR M&E Database	Doctors: 16 Nurses: 475 All categories: 798 (2004)	20 513 1228	19 486 915	Doctors:20 Nurses:513 All categories: 1228	Doctors:22 Nurses:48 All categories: 424 (Doctors, Cl. Ofs., MAs, HAs & Nurses)	Doctors:60 Nurses:47 0 All categories: 840 (Doctors, Cl. Ofs., MAs, HAs & Nurses)	64 670 1534	Considerable number of students were expected to graduate out of the HTIs prior to June 2007
Pillar 2: Pharmaceuticals										
Supply chain functioning adequately	- % health facilities without stock-outs of TT vaccine, Oxytocin, SP, ORS and cotrimoxazole for more than a week at a time	LMIS	SP: 85% ORS: 81% Cotrimoxazole: 82% Composite: 89% (LMIS 2004)	100% 100% 100% 100%		100% 100% 100% 100%	SP: 97% ORS: 89% Cotrimoxazole: 83% TT: 91% Oxytocin: 88% Diazepam:	SP: 100% ORS: 100% Cotrimoxazole: 100% TT: 100% Oxytocin:	100% 100% 100% 100% 100%	Indicator modified to Drug Days Availability prior to Mid-year review in April 2007. List of drugs monitored expanded at MYR in April 2007.

							65% HIV Test kits:82% TB drugs:89% (Reports from DHOs at MYR Apr 07)	100% Diazepam: 85% HIV Test kits:100% TB drugs:100 %		
Pillar 3: Essential basic equipment										
Essential medical equipment available at all health facilities	-% health facilities with equipment in line with standard (to be defined)equipment list	PAMIS	To be established in 2006	Baseline established	Survey to be done	Baseline established	Still to be measured	Survey planned in 2007-2008.	90%	Not measured at mid-year because standard equipment list remained to be defined by PAMIS. List to be ready by Sep2007.
Pillar 4: Infrastructure										
Adequate health facilities available	- % health facilities with functioning water, electricity and communication	PAMIS	59% (HMIS 2003)	65%	74%	65%	-functiong. water=63% -functiong. electricity= 56% -functiong. communication=80% (reports from DHOs at MYR 07)	- functioning water=85 % - functioning electricity= 80% -functiong. communication=100 %	90%	A fourth dimension (fully renovated) being measured from MYR Apr 2007
	- % districts with functioning ambulances that satisfy requirements	Transport Unit	To be established in 2006	Baseline established	Not measured	Baseline established	Not measured at MTR	Transport unit to define and set	80%	To be provided by Transport unit
Pillar 5: Routine Operations										

Routine operations at service delivery level adequately carried out	- % health facilities regularly supervised by extended DHMT using integrated supervision checklist	HMIS (HMIU)	To be established in 2006	Baseline established	72.11%	73%	73% (403/552) (Reports from DHOs at MYR Apr 07)	75% (414/552)	80%	
Pillar 6: Central Institutions, Policy & Systems										
Central institutions support strengthened	-% districts reporting timely data -% facilities reporting data	HMIS (HMIU)	Timeliness: 10% Reporting status: 88% (HMIS 2004)	Timeliness: 60% Reporting status: 100%	Timeliness: 10% Reporting status: 94% (HMIS July-Dec 2005)	Timeliness: 60% Reporting status: 100%	Timeliness: 12% Reporting status: 91%(HMIS July-Dec 2006)	Timeliness : 60% Reporting status:100 %	Timeliness 100% Reporting status:100%	Facilities continue to lag behind in submitting reports to districts. Situation expected to improve with introduction of monthly facility level reviews & quarterly district and zonal reviews
Health Financing										
Entire health sector funded adequately	- % GoM budget allocated to health sector	MOF	11.1% (2004-05) Source: MOF,2005	11.5%	10.7%	11.5%	8.7% (2006-07)	12.6%	15.0%	MoH requested GoM to compensate the under funding of 2006-07 in 2007-2008 budget allocations.

	- % of Budget and Funds utilised annually	MOH	% Annual Budget Funded: 70% % Recurrent Funding Utilised: 91% (2004/2005)	% Annual Budget Funded: 80% % Recurrent Funding Utilised: 75%	% Annual Budget Funded: 137% % Recurrent Funding Utilised: 87%	% Annual Recurrent Budget Funded: 85% % Recurrent Funding Utilised: 80%	% Annual Recurrent Budget Funded: 117% % Recurrent Funding Utilised: 99%	% Annual Recurrent Budget Funded: 90% % Recurrent Funding Utilised: 85%	% Annual Recurrent Budget Funded: 90% % Recurrent Funding Utilised: 85%	This analysis is for pool funds only. See Multi-year trend circulated by finance dept. for details of discrete funding.
	- per capita allocation (GoM and donor) to health sector (USD)	MOF	US$ 5.1 (2003/2004) Source: MOEPD	US$11.5	Not measured	US$ 11.5	US$ 9.21	US$ 13	US$17.53	Per capita national expenditure on health was found to be 18 US$ in 2003-2004 and 22 US$ in 2004-2005 as per NHA 2002-2004.

ACRONYMS:AIDS=Acquired Immune Deficiency Syndrome, ARV=Anti-Retrovirals, CPR=Contraceptive Prevalence Rate, DHMT=District Health Management Team, DHS=Demographic and Health Survey, EHP= Essential Health Package, MOEPD = Ministry of Economic Planning and Development, GIS=Geographic Information System, GOM=Government of Malawi, HAs=Health Assistants, HIV=Human Immuno-Deficiency Virus, HMIS=Health Management Information System, HTIs=Health Training Institutions, IMR=Infant Mortality Rate, ITN=Insecticide Treated Nets, JICA=Japan International Cooperation Agency, KABP=Knowledge, Attitude, Behaviour and Practice, LMIS=Logistics Management Information System, MAs= Medical Assistants, ME&R=Monitoring, Evaluation and Research, MGDS=Malawi Growth and Development Strategy, MMR= Maternal Mortality Ratio, MOEPD =Ministry of Economic Planning and Development, MOF=Ministry of Finance, MoH=Ministry of Health, N.A.=Not available, NHA=National Health Accounts, NSO=National Statistics Office, NMCP=National Malaria Control Programme, NTCP=National Tuberculosis Control Programme, OPD=Out-Patient Department, ORS=Oral rehydration salt, PAMIS=Physical Assets Management Information System, RCH=Reproductive and Child Health, SDSS=Service Delivery Satisfaction Survey, SP=Sulfadoxine Pyramethamine, SWAp=Sector Wide Approach, TB=Tuberculosis, TT= Tetanus Toxoid, TWG =Technical Working Group, U5MR=Under five morality rate, US=United States, WHO=World Health Organization

6.2 List of Documents reviewed

1. EHP documents training materials
2. District and central hospital plans and budgets
3. SWAp mid year and annual review reports
4. HMIS bulletins
5. SWAp M&E framework
6. Technical programmes
    - TB plans, TWGs minutes and TORs strategic plan , guidelines , training materials , IEC materials , prisons policy
    - Malaria : Policy strategy, guidelines, TWG minutes GF proposal
    - HIV programme documents
    - Communicable Disease control : ARI , Schistosomiasis, leprosy and skin , IMCI and IDSR guidelines
    - Expanded programme on immunisation documents
    - Nutrition guidelines ,policies reports TWGs minutes
    - STI. Guidelines training materials

Service level agreements

ANNEX 5 Planning, Monitoring and Evaluation Report

Mid-term Review of the Programme of Work for the Malawi Health Sector Planning, Monitoring, and Evaluation Report

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November 2007

Mid-term Review of the Programme of Work for the Malawi Health Sector
Annex 5: Planning, Monitoring, and Evaluation Report

EXECUTIVE SUMMARY

The Planning, Monitoring, and Evaluation Annex Report is designed to contribute to two central questions from the Sector Wide Approach (SWAp) Programme of Work (POW) Mid-term Review (MTR) Inception Plan. From a planning systems angle and a monitoring and evaluation perspective, the following two questions are examined: "How relevant is each POW pillar in relation to achieving health sector goals and objectives?" and "How well have those systems and procedures necessary to supporting the POW been set up and how well are they operating?" The report has been compiled based on document review, stakeholder interviews, field visits and observation, examination of data and reports, and general critical analysis of the health sector planning, monitoring, and evaluation systems in Malawi, conducted in August and September 2007.

The report first addresses the question, "How relevant is each POW pillar in relation to achieving health sector goals and objectives?" The six POW pillars include: (1.) Human Resources, (2.) Pharmaceuticals, Medical, and Laboratory Supplies, (3.) Essential Basic Equipment, (4.) Infrastructure, (5.) Routine Operations, and (6.) Central Institutions, Policy, and Systems Development. These systems and procedures are essential to the success of the delivery of the Essential Health Package (EHP) and remain relevant to achieving the health sector goals and objectives three years into the SWAp. The bottlenecks they address are still immediate challenges, particularly with regards to the first two pillars, Human Resources, and Pharmaceuticals, Medical and Laboratory Supplies.

Although each of the six pillars is relevant and critical to achieving the health sector goals and objectives, the Health SWAp POW did not provide adequate clarity as to the linkage between the goals and objectives and the six pillars. The pillars are not adequately linked to the objectives focussing on (1.) decreasing the disease burden through improving access to the EHP, (2.) strengthening the capacity of the decentralised District Health system to plan, budget and deliver quality health services, (3.) enhancing the capacity of the MoH in the areas of policy development, analysis, and enforcement and monitoring and evaluation through efficient and regular supervision and survey systems, and (4.) strengthening the role of communities in decision making on health issues.

As the pillars are input-oriented, this creates difficulty in mapping outputs, outcomes, and impact indicators into the pillars. However, the Health SWAp Monitoring, Evaluation, and Research (M,E,&R) Framework does provide a clearer mapping of the key indicators into the pillars. Although the pillars are more focussed on main areas of input, the POW goes into much greater detail regarding essential interventions to address the overall health sector objectives and the delivery of the EHP, in particular.

The design of the pillars represents the focus on implementation that was useful when the health SWAp was being developed. However, three years into the SWAp, the focus on inputs needs to be balanced with discussion as to whether the health SWAp is achieving its objectives. For instance, the encouraging construction of much-needed additions to hospitals and the frustrating lack of human resources have become the primary focus in many settings. Essential steps to delivering the

package should not cause staff to lose sight of the actual delivery of the EHP. This should be the central focus of M&E and planning activities.

Subsequently, the report addresses the question, "How well have the monitoring and evaluation and planning systems and procedures necessary to supporting the POW been set up and how well are they operating?" The planning and monitoring and evaluation systems are evolving as the health SWAp develops. The monitoring and evaluation system is functioning and regular reports are able to be produced. The quality of data contained in the reports and the use of that data to strengthen planning processes needs to be greatly improved. However, the HMIS is under revision currently to improve harmonisation and streamlining of the system. Data verification and quality assurance mechanisms need to be put in place as soon as possible.

Plans have been in existence for the HMIU to be transformed into a MERU since the creation of the POW and the signing of the MoU. These plans need to be carried forward in a timely manner. Complementary roles and responsibilities between actors in the monitoring and evaluation system will need to be clarified as a part of this process. As MERU begins to take a strong position of leadership in improving data quality and data use, problem areas will be able to be more effectively monitored and work plans and budgets prioritised.

The Department of Planning has been subject to high turnover and will greatly benefit from the stability of consistent leadership. Up to this point, annual plans, annual budgets, and annual reviews have not been well-aligned with each other or the POW. Messages regarding key objectives and priority areas have not been communicated from central level to district level to the extent necessary.

Traditionally, creation the District Implementation Plans (DIPs) has not incorporated all key players or taken a strategic planning approach. Meanwhile, data is not being used effectively for planning purposes throughout the health system. Although districts are taking on increasing responsibility for planning in the health sector, mentoring in strategic evidence-based planning that considers the needs of all constituents needs to take place.

Great potential for strengthening the planning and M&E systems exists, requiring for its full realisation high-level leadership championing the importance of data analysis to inform planning efforts. The district planning process has recently been strengthened in a number of districts and closer working relationships between planning officials at central, zonal, and district level will help to improve coordination and strategic planning.

Recommendations are made at the end of the report and translated into specific processes or actions. Highlights of the recommendations include: (1.) To improve the level of oversight and coordination of monitoring, evaluation, and research activities through rapid transformation of the Health Management Information Unit (HMIU) into the Monitoring, Evaluation, and Research Unit (MERU); (2.) To dramatically increase understanding of the importance of and the practical use of monitoring and evaluation for planning purposes; and (3.) To take specific steps to improve data quality, use, and strategic planning to improve the delivery of the Essential Health Package (EHP).

1. INTRODUCTION AND BACKGROUND

The Planning, Monitoring, and Evaluation Annex Report is designed to contribute to two central questions from the Sector Wide Approach (SWAp) Programme of Work (POW) Mid-term Review (MTR) Inception Plan. From a planning systems angle and a monitoring and evaluation perspective, the following two questions are examined: "How relevant is each POW pillar in relation to achieving health sector goals and objectives?" and "How well have those systems and procedures necessary to supporting the POW been set up and how well are they operating?" Two other members of the MTR team are focusing on the delivery of the Essential Health Package (EHP) and national progress against indicators in the SWAp Monitoring, Evaluation, and Research Framework (M,E&R Framework) over time.

A number of key contextual issues are highlighted in the summary report. In brief, the EHP provides the basis for the POW for the Health Sector. The EHP includes a minimum package of services to be provided free of charge at the point of delivery to all Malawians. The POW has been operational as the guiding document for the health sector since October 2004. Designed with a focus on putting the structures in place to create an optimal environment for the delivery of the EHP, it is widely acknowledged that the emphasis of the POW and particularly planning and M&E elements will need to change as the SWAp develops.

2. METHODOLOGY

The M&E Consultant functioned as part of a multi-disciplinary team reviewing the health SWAp POW. The Planning, Monitoring and Evaluation Annex Report has been compiled based on document review, stakeholder interviews, field visits and observation, examination of data and reports, and general critical analysis of the health sector planning, monitoring, and evaluation systems in Malawi. This work was conducted in August and September 2007.

3. FINDINGS

This annex is designed to contribute to two central questions under Objective 2 of the SWAp POW MTR Inception Plan. Objective 2 concerns progress in achieving the pillars of the POW and other health sector strategic plans in delivery of the EHP. The first of five questions asked under this objective is: "How relevant is each POW pillar in relation to achieving health sector goals and objectives?" The first three questions below (3.1-3.3) are aimed at answering this question. The second of the five questions under objective 2 asks: "How well have those systems and procedures necessary to supporting the POW been set up and how well are they operating?" Questions 3.4-3.10 address this question from an M&E systems perspective, while questions 3.11- 3.14 examine it from a planning systems angle. Findings are presented below against the questions from the Terms of Reference for the Monitoring and Evaluation (M&E) Consultant. Questions 3-5 under Objective 2, as well as the questions from the other objectives are addressed in accompanying annex reports by other groups of consultants.

3.1 Can health sector goals and objectives be easily mapped into the different pillars?

The six POW pillars include: (1.) Human Resources, (2.) Pharmaceuticals, Medical, and Laboratory Supplies, (3.) Essential Basic Equipment, (4.) Infrastructure, (5.) Routine Operations, and (6.) Central Institutions, Policy, and Systems Development. These systems and procedures are essential to the success of the delivery of the EHP and remain relevant to achieving the health sector goals and objectives three years into the SWAp. The bottlenecks they address are still immediate challenges, particularly with regards to the first two pillars, Human Resources, and Pharmaceuticals, Medical and Laboratory Supplies.

The Routine Operations pillar has been found to be overlapping with the first four pillars. Although each of the six pillars is relevant and critical to achieving the health sector goals and objectives, the Health SWAp POW did not provide adequate clarity as to the linkage between the goals and objectives and the six pillars. However, the Health SWAp Monitoring, Evaluation, and Research Framework does provide a clearer mapping of the key indicators into the pillars. In attempting to map the goals, objectives, and indicators for the health sector, weaknesses in linkage to the pillars are revealed. The pillars are not adequately linked to the objectives focussing on (1.) decreasing the disease burden through improving access to the EHP, (2.) strengthening the capacity of the decentralised District Health system to plan, budget and deliver quality health services, (3.) enhancing the capacity of the MoH in the areas of policy development, analysis, and enforcement and monitoring and evaluation through efficient and regular supervision and survey systems, and (4.) strengthening the role of communities in decision making on health issues.

The pillars in the health SWAp POW represent the inputs needed to achieve the health sector goals and objectives. As the pillars are input-oriented, this creates difficulty in mapping outputs, outcomes, and impact indicators into the pillars. The design of the pillars represents the focus primarily on implementation that was useful when the health SWAp was being developed. However, three years into the SWAp, the focus on inputs needs to be balanced with discussion as to whether the health SWAp is achieving its objectives.

3.2 Are there gaps between those interventions emphasised through the pillars and POW when compared to overall health sector objectives to be achieved?

Although the pillars are more focussed on main areas of input, the POW goes into much greater detail regarding essential interventions to address the overall health sector objectives and the delivery of the essential health package, in particular. The problem of much greater concern is that, based on the sample of fourteen health facilities and and seven districts, many district health officials and health workers at service delivery level do not have a clear vision of what they are trying to achieve in relation to the essential health package. This is not universally true, and not every facility in the country was visited. Nevertheless, the following problems were clear to the review team. Firstly, few of the staff interviewed could describe what the essential health package is. Secondly, many are not able to articulate how they would know if they were being successful in delivering it. There is little understanding of how key indicators might be used to chart progress. Few have a sense of what the progress against key indicators has been for their facility or district, what the targets are, or how they might contribute to addressing bottlenecks and improving achievement.

3.3 What other pillars or interventions would be required to ensure all objectives are met?

At this point the MTR team does not feel that there is a need to add pillars or interventions. The focus for the remaining period of the POW should be to consolidate and improve the work done so far, as there are still many problems to solve within each of the pillars (as outlined in other annexes of this review). While the pillars could be reconfigured to better-represent the objectives to be achieved in the delivery of the EHP, this is not necessary, as the SWAp M,E,&R Framework has helped to bridge that gap. The interventions required to meet the objectives are included in the POW, for the most part. However, the balance of focus needs to be shifted more onto the actual delivery of the EHP. For instance, the encouraging construction of much-needed additions to hospitals and the frustrating lack of human resources have become the primary focus in many settings. Essential steps to delivering the package should not cause staff to lose sight of the actual delivery of the EHP. This should be the central focus of M&E and planning activities.

3.4 What are the basic elements of the current M&E system and how well are they integrated? Do they meet international standards for a robust HMIS?

The current M&E system for the health sector is comprised of several key data sources. The Health Management Information System (HMIS) located in the Ministry of Health (MoH) is the primary source of data for the M&E system for the health sector, as it is the mechanism through which routine data is collected. The National Statistics Office (NSO) also provides data for many key indicators through reports compiling the results of national surveys such as the Demographic and Health Survey (DHS) and the Multiple Indicator Cluster Survey (MICS).

Under the HMIS, there are a number of subsystems covering areas such as integrated disease surveillance and response and logistics management information. Rather than integrate these subsystems into one system, the Health Management Information Unit (HMIU) has instead attempted to ensure that the subsystems are strengthened independently and remain in communication with each other.

Not all subsystems are fully developed. For instance, baselines are not available yet for equipment. The equipment list and standards are still being finalised and are anticipated by the end of September 2007. A facility survey is planned to follow. Meanwhile, other subsystems, such as the Integrated Disease Surveillance and Response (IDSR), are operational and able to produce and publish results.

The role of HMIU in strengthening and coordinating these subsystems is still tenuous. As HMIU has not yet been transformed into the Monitoring, Evaluation and Research Unit (MERU), its ability to provide oversight and direction is constrained by limited mandate, lack of human resources, and lack of institutional support.

Although the HMIU has begun to conduct broader M&E activities, the HMIU remains limited primarily to management of the HMIS. This does not allow for proper influence to bring together and strengthen the entire M&E system for the health sector. Therefore, integration of the various elements of the M&E system is severely lacking. Meanwhile, the HMIS still faces major challenges to becoming a robust system. Data reporting routes need to be clarified to avoid dual routes and

conflicting reports. For instance, vertical programmes are in some cases reporting different results from the same reporting forms as the HMIS. Data verification and quality assurance measures are missing or weak at every level of the HMIS system.

The HMIS is currently undergoing major revisions which will hopefully address many of these problems. The integration of disease specific programmes with the HMIS will be discussed further in section 3.10.

3.5 How well is the integrated supervision list working at district level?

The integrated supervision list is being used by districts as a guiding tool. It has been very helpful as a standardised list that brings together the many areas within which supervision should be occurring on a regular basis. However, the composition and focus of the supervision team on any given visit does strongly influence the success of the use of the tool. Personal interests and priorities have taken precedence over or limited the comprehensive use of the integrated supervision list on some supervision visits. The tool can be made more relevant through closer mentoring of district teams by zonal staff.

Meanwhile, it is worth noting that there are a number of supervision lists in use, or at least in circulation. This speaks to the confusion and duplication of roles within the sector. At the zonal level there are also a number of supervision lists for use when visiting district health offices and facilities. The most comprehensive and strongly advised list from the Zone Supervision Manual does not correspond with the integrated supervision list, creating difficulties in conducting joint supervision with district staff to improve opportunities for mentoring of district staff by zonal staff.

3.6 How valid and reliable is data collected through existing data sources?

The timeliness and completeness of HMIS data has improved dramatically over the past three years. However, HMIS reports are still delayed by many months due to missing data from just a few sites.

Meanwhile, dual data routes are creating inconsistencies in reported data. Vertical programmes hesitant to trust the quality of HMIS data have requested that data be sent to their headquarters directly from the districts. When numbers are questioned, they often institute their own data verification measures. When the HMIS report is later issued, the values it contains do not match vertical programme reports in some cases. Questions then ensue as to which values are more accurate. The lack of data verification and data quality assurance mechanisms at every level of the HMIS put the quality of its data into question. It is therefore reassuring to note that the Ministry of Health has in place a strategy for addressing this problem. The Annual Implementation Plan HMIS section describes a proposal for an external quality assurance system that will be able to reconcile discrepancies between disease programmes and the central HMIS.

Registers are being religiously attended to at most facilities. However, an examination of clinical registers at the facility level in those facilities examined as part of this review review revealed a lack of page summaries at nearly every facility. However, the report of one joint HMIU/Zonal supervision visit in late 2006 indicated there is around 50% compliance with doing page summaries. Failure to create page summaries results in the arduous task of adding totals of different types of cases for a month at a time. As no notes are made in the register, no separate pages are able

to be produced where these cases have been tallied, and nearly every person who has performed the function of filling in the reporting forms confirms that they have spent hours or days at the end of the month adding the totals in their head, one can only imagine the number of errors that occur. A register might contain 70 pages filled with entries over a period of one month. At the end of the month, the person responsible for completing the reporting form or an assistant spends hours at a time reading endless pages of entries and adding up the number of cases with a given diagnosis/disease code. Without any tallies on the pages, it is easy to lose count. Errors are nearly inevitable. The MTR team recognises the severe lack of capacity at facility level as contributing to this problem, which will need a concerted effort by district and zonal teams to resolve.

With few working mechanisms for data verification, most of these errors remain undetected. In most cases the data is underused at facility level for planning purposes and inconsistencies are often never questioned.

3.7 How well are specific HR needs for the HMIS met? Are there steps that can be taken to improve this?

HMIU has been operating on skeletal staffing. In a positive development since the new Director of Planning has come into his position, two key posts have been filled in the HMIU in recent months. However, the HMIU needs substantial reorganisation and expansion to play the role of MERU that is so desperately needed, as outlined in the MoU and the POW. The plans for MERU, including changes in staffing arrangements need to be implemented as soon as possible. This will enable the Unit to provide direction to and oversight over monitoring, evaluation, and research activities regarding the health sector. It will also allow for more attention to data quality assurance and mentoring of the zonal offices to ensure stronger supervision and capacity-building by the zonal staff at district level. Greater capacity at headquarters would also allow for time to be invested in strengthening the relationships with vertical programmes, clarifying roles between entities, and cultivating the supportive role MERU should be playing in relation to the vertical programmes rather than perpetuating the competitive relationship that has existed.

3.8 What progress has been made in institutionalising the HMIS at each level of service delivery?

Since the institution of HMIS in 2002, it has increasingly become more functional as a passive system. Data is moving up from the facility to the district to the zone to headquarters. The reinstating of zonal offices has helped immensely in creating more accountability and oversight for districts. Less pressure now rests on the office at headquarters to follow-up on incomplete and late reporting of data.

While data reporting has improved, the data is still severely underused at all levels. At facility level, often the person managing the data does not have a good sense of the meaning it could hold for the functioning of the facility. While some district M&E staff are very motivated and skilled, beyond their M&E-specific post, there is little appreciation or respect for the usefulness of data. This description could be used to characterise the relationship between nearly every data manager and programme planner/manager.

One glowing exception to this norm is Mzuzu Central Hospital where the new director has championed the use of data for improving service delivery. One of the first

things she did upon appointment to her post was to impress upon every department head the importance and relevance of data to their job. This has resulted in a more attentive staff attuned to the needs of patients and focused on improvement of service delivery.

3.9 How appropriate has the choice of indicators, and number of indicators been within the HMIS, given the workload required at each level of service delivery?

The HMIS is currently undergoing substantial revision. As a part of the process, indicators are being reviewed. Although the outcome of this process is not yet known, the HMIU has expressed that the number of indicators reported at headquarters should be fewer, with more extensive lists of indicators being used for programme monitoring at lower levels.

3.10 How well do the disease specific programmes integrate with the HMIS?

Attempts have been made to better integrate disease specific programmes with the HMIS. However, a dynamic of competition and isolation still remains. Complementary rather than competitive roles need to be defined.

Greater harmonisation and alignment between disease specific programmes and the HMIS is one of the goals of the on-going revision of the HMIS. There is hope that this will help to resolve the differing data sources being used for the same indicators, the dual data routes, different reported values for the same indicators, and parallel reporting systems.

Although timeliness is improving, it is still often sited by vertical programmes as a factor in decisions to use a separate data route for collecting data in order to ensure the availability of key information for reports to individual donors. Meanwhile, the lack of data verification and quality assurance mechanisms remains a concern that deeply effects integration. As long as the mistrust of HMIS data and desire to resolve questions about data quality independently rather than through strengthening the capacity of the HMIS persists, there will continue to be a worryingly low level of integration between vertical programmes and the HMIS.

3.11 How is this data being used effectively for planning and monitoring purposes?

The annual planning process for the health sector begins with health facility plans. These documents are often viewed as requests for resources and listing of programmes. Health facility plans are incorporated into the District Implementation Plan (DIP) created by the District Health Management Team (DHMT). The DIPs are reviewed along with Central Hospital Implementation Plans (CHIPs) at central level by the MoH Department of Planning as a part of the process of the creation of the MoH Annual Implementation Plan (AIP). Central level MoH programmes and requirements are also taken into account as a part of this process.

At facility level, the data is primarily seen as an obligation for collection and reporting within the HMIS. It is not well known what happens to the data once it reaches headquarters and staff at the facility level are often too overwhelmed with work to consider how the data might be relevant and even essential to their tasks. HMIU are

starting to address this problem with facility yreviews that aim to increase the use of data for decision making at facility level.

At some hospitals, the person responsible for reporting to HMIS might attempt a graph charting progress on several indicators. These are likely to be basic upward trends indicating increased level of access, however, capacity to analyse data on key indicators and utilise the information for strategic planning within the facility and catchment area is lacking.

For instance, at one rural hospital, a recent outbreak of measles was handled well when identified through unusual numbers of emerging cases. However, beyond this instance, data is rarely used for planning and regular morning rounds by the nursing staff and openly voiced client comments are the primary basis for assurance of the quality of the services. Monthly review meetings at the facility have recently been established but as yet rarely incorporate useful data for planning purposes.

At district level, the extent to which there is a possibility that data can be used effectively for planning and monitoring purposes rests in the level of capacity of the person responsible for reporting to HMIS. In many cases, the person in this role has great potential with a combination of both data management skills and motivation.

However, the extent to which the data is actually used for planning and monitoring is largely determined by level of recognition and support this individual receives from the District Health Office (DHO). Other constraints include outdated and virus-ridden computers which are not reliable for the purposes of entering data and generating reports and lack of transport in the form of motorcycles to improve supervision and follow-up at facilities. HMIU is aware of these issues and several new computers are being installed this month.

Zonal offices are increasingly becoming a valuable resource for districts in assisting with the analysis and use of data. Moreover, they are the primary link between districts for comparison of results and sharing of challenges and best practices.

At central level, the use of data varies widely. Within the HMIU, the primary focus is on data management and the production of six-monthly reports based primarily on facility, district and central level curative and prevention programmes. However, the information needs of the the Department of Planning extends further than the information currently generated by HMIU. The Director of Planning does not receive the information from all departments that would be most appropriate and useful for planning purposes, and thus is not utilising data to the extent that would be possible. This is particularly true of data on human resources, drug and medical supplies and financial management data. For monitoring purposes, data from the SWAp indicators is reviewed against targets set with limited examination of implementation plans. Vertical programmes collect and analyse data somewhat independently from the HMIU.

Efforts to ensure that the HMIS will be able to produce more relevant and accurate data in the future have been kept alive largely through the efforts of the HMIU with the support of the Director of Planning and several development partners. Through sheer persistence on the part of the Chair of the Monitoring, Evaluation, and Research Technical Working Group (M,E,&R TWG), the TWG has continued meeting within a difficult environment for TWGs. In addition, the current Director of Planning has made a point of attending these meetings and playing a vocal role in supporting the importance of the HMIU. With the creation of MERU, the M,E,&R TWG will be able to play a more defined and realistic role the health sector's M&E processes.

3.12 How appropriate are the SWAp monitoring indicators and the targets therein, especially in light of increasing segregation of the data (by gender, socio-economic groups, etc.)?

There is almost complete agreement that the SWAp monitoring indicators and targets are satisfactory and that their use rather than their revision needs to be the focus of attention at this point. Meanwhile, so many concerns have been voiced with regard to the indicators and targets used by the HMIS, that it is under revision at this time. Moreover, if the Department of Planning is not receiving the information necessary to decision-making and planning in the health sector, then there is cause for serious concern.

Certainly, key indicators, results, and targets need to be at the height of consciousness for persons responsible for planning and implementation. Questions about what is going wrong and what can be done to improve performance in key areas such as human resources and drug supply are not sufficiently covered by current reports.

A detailed discussion of the appropriateness of targets can be found in the Essential Health Package Technical Progress Report Annex.

3.13 What are, and how appropriate are, the mechanisms and tools put in place to improve the planning capacity in Districts and Central Hospitals?

Zonal offices have recently been re-instated, greatly improving the support available to districts for planning, monitoring and evaluation. As a resource to district health offices for assistance with planning, supervision, and monitoring and evaluation, the zonal offices have proven invaluable. In addition, Management Sciences for Health has been providing technical support in district planning processes for a selected number of districts. This extensive assistance and capacity building work throughout the District Implementation Plan (DIP) formation process has improved both the process and the product. However, the health planning process still remains detached and insufficiently incorporated into the general district plans. Planning processes for Central Hospitals are not well integrated with the planning processes for the districts they serve.

3.14 How well do annual plans, annual budgets, and annual reviews link internally and to the PoW?

Annual plans and budgets are focussed on inputs and not linked sufficiently to the outputs and outcomes expected in the POW. There is also poor correspondence between the AIPs, DIPs, CHIPs, and the monitoring of the POW. In addition, at every level, national panning processes and health planning processes are not well integrated. For example, while the District Commissioner (DC) is theoretically responsible for planning for the health sector, district plans to not match district health plans. The District Implementation Plans for health to not align with the POW and are frequently more focused on the list of resources desired than on a strategic approach to addressing health needs in the district. Moreover, in many cases, they do not incorporate a full assessment of the needs at all facilities or take into consideration the functions of the central hospital. However, attempts are being

made at zonal and central levels to move toward a more integrated approach to planning that is evidence-based and prioritised.

4. ANALYSIS AND DISCUSSION

4.1 Strengths

The HMIS has been in place since 2002. Given the relative longevity of the system and lessons learned along the way, the HMIU is in a good position to identify key strategies for improving data quality and use. The HMIS is functioning and data is moving up through its levels with increasing timeliness and completeness. In addition, very concrete steps have been taken by HMIU staff to address financial constraints by sourcing funds from outside the MoH finances. The future direction of the unit, its transformation into MERU, has been clearly identified since before the signing of the MoU and plans have been submitted to this effect.

The POW is recognised as the key document containing Malawi's national health strategy and it is still a relevant and useful basis for health sector planning. A health information system policy and strategy has been developed and has received approval from the MoH. Although not yet complete, there has been an initiative focused on harmonising SWAp indicators with other frameworks, including the Millennium Development Goals (MDGs), the Malawi Growth and Development Strategy (MGDS), the Common Approach to Budget Support (CABS), and the HIV/AIDS M&E Plan. The annual implementation planning process is increasingly decentralised, beginning at health facility level, moving to district level, and ending in the formation of the national plan at central level. The involvement of zonal offices has resulted in greater quality in supervision at district level, better collection of information, and increased discussion of challenges and best practices across districts. Facility-level monthly and quarterly reviews have been initiated at district and zonal levels. In addition, the SWAp M,E&R Framework is updated and used during annual and half-yearly SWAp reviews, as possible given the timing of the meetings and the completion of the updates.

4.2 Weaknesses

The accuracy of data reported is questionable without the use of page summaries in registers. Incomplete data at times results when information from some health passports is not entered in the register. Moreover, the lack of functional data verification and quality assurance mechanisms is a weakness that needs to be addressed on all levels. The internal quality assurance process needs to be strengthened significantly to ensure that it is functional. Meanwhile, plans to put in place an external data quality assurance system need to be operationalised and implemented. As this problem is resolved and data timeliness and completeness is improved, multiple data routes can be eliminated. Agreement still needs to be reached between some vertical programmes and the HMIS as to which data source will be the primary data source for some indicators.

It is clear that data is underused all the way through the system. Data for key indicators in critical problem areas are not even known. For instance, the drug supply indicator methodology has been updated, but it should still be able to be calculated using the same information that was required for the previous methodology. However, the description of the indicator has not yet been updated and there is no data available for this indicator. In addition, a census is planned to obtain baseline information on human resources, but there needs to be a dependable way to keep the system updated for routine analysis to address human resources problems.

Key indicators and data are not being used for monitoring, but only for routine reporting to fulfil a duty. Little is done with the data after it is reported. The most recent data on key indicators should be the topic of every conversation when it is released, as it is critical to the success of the health sector. M&E is completely outside the focus of most key players driving the system rather than it being their guiding tool.

4.3 Constraints/Bottlenecks

The importance of the use of data for planning and implementation will only be realised within the health sector when there is support and elevation of this field from the top levels of leadership. The absence of a central coordinating body for all monitoring, evaluation, and research in the health sector has left the implementation of ME&R activities to occur in the margins of the national plan, without clear direction, leadership, or integration. Multiple donor-driven demands for data give way to multiple reporting forms which drain resources and precious time from the system. A stronger coordinating unit with a larger scope of work would be able to manage a more cohesive and streamlined M&E system.

MERU should be passionately driving a process that moves the nation's health sector M&E activities to the centre of the planning process. This movement, if championed by the Minister of Health and the Department of Planning, could transform the health sector's initiatives and dramatically increase the effectiveness of the delivery of the EHP.

4.4 Opportunities

Plans for the transition from HMIU to MERU have been in existence for several years and were included in the MoU. As this transformation occurs, the opportunity for leadership and coordination of M,E&R activities will be fully utilised. In the meantime, substantial finances are becoming available for the first time within the HMIU. As updated computers and other resources are put in place, training and mentoring by the zonal staff of district and facility staff will be critical to their optimised use.

Skilled and motivated assistant statisticians are in place at many district health offices and can greatly enhance data analysis and use, especially when supported by district and zonal staff. An exemplary and encouraging example of best practice was found at the Dowa district health office, where the Assistant Statistician has been producing an annual report on the progress achieved at all facilities in the district for the past several years. This has sparked much more robust conversation at district quarterly review meetings and allowed facilities to measure their progress on key indicators against other facilities, the district average, and targets, discuss challenges, and determine ways forward.

When asked what motivated him to begin to produce this report, the Assistant Statistician replied that he sees that it is done at national level and wanted to do it for his district. His greatest support came from within the district health office and the district itself. This year, the HMIU assisted him in finding a publisher and the annual Dowa district report was published as a beautiful booklet with a photo on the front of the new motorcycle ambulance that has increased the number of successful referrals within the district.

Data management and analysis and capabilities, motivation, and district health office recognition and support of assistant statisticians varies widely across districts. However, the potential for what can be done when all three are enhanced is incredibly encouraging.

Staff are increasingly encouraged and motivated by the influx of finances, new computers, and increased renovations and construction at the district level. Mentoring from zonal M&E officers can help to improve the quality work by district staff. At the district level, upgrading training and position levels, providing continuous support through the zones, and instituting incentives for exemplary performance can contribute to the full use of their potential.

When leaders model the use and importance of data and help staff catch a vision regarding what they can do to improve health from their position in the health sector, transformation can occur in an institution. Mzuzu Central Hospital has been an example of this change. One of the first things the director did upon entering her position was to impress upon everyone how important their job was and how important the use of data was to carrying out that job. Her mentoring has helped to alter the perspective of staff throughout the hospital and to cultivate a culture of data use.

At a systems level, there is an opportunity to utilise M&E to bolster performance management. The MOH could develop measures of performance similar to those being adopted with great success in the area of infection control. Building on good practice developing in other countries, these measures of performance could be used to compare across facilities and districts and provide motivation for improvement.

For instance, the effectiveness of zonal offices in improving quality of and access to services could be measured and practices improved using routine data collected. As a part of this system, the timeliness of HMIS reporting could be measured, as well as the proportion of health financing being spent on primary and preventative care vs. hospital-based care. By creating standardised, reliable criteria for performance management, evaluation of department/facility performance can be demystified and greater accountability provided.

5. CONCLUSIONS AND RECOMMENDATIONS

The planning and monitoring and evaluation systems are evolving as the health SWAp develops. The six pillars in the POW represent systems and procedures that are essential to the success of the delivery of the Essential Health Package (EHP) and remain relevant to achieving the health sector goals and objectives. The design of the pillars represents the focus on implementation that was useful when the health SWAp was being developed. However, three years into the SWAp, the focus on inputs needs to be balanced with discussion as to whether the health SWAp is achieving its objectives and how to improve the actual service delivery of the EHP.

The monitoring and evaluation system is functioning and regular reports are able to be produced. The quality of data contained in the reports and the use of that data to strengthen planning processes needs to be greatly improved. However, the HMIS is under revision currently to improve harmonisation and streamlining of the system. Data verification and quality assurance mechanisms need to be strengthened as soon as possible. Plans have been in existence for the HMIU to be transformed into a MERU since the creation of the POW and the signing of the MoU. These plans need to be carried forward in a timely manner. Complementary roles and

responsibilities between actors in the monitoring and evaluation system will need to be clarified as a part of this process. As MERU begins to take a strong position of leadership in improving data quality and data use, problem areas will be able to be more effectively monitored and work plans and budgets prioritised.

The Department of Planning has been subject to high turnover and will greatly benefit from the stability of consistent leadership. Up to this point, annual plans, annual budgets, and annual reviews have not been well-aligned with each other or the POW. Messages regarding key objectives and priority areas have not been communicated from central level to district level to the extent necessary. Traditionally, creation the District Implementation Plans has not incorporated all key players or taken a strategic planning approach. However, the district planning process has recently been strengthened in a number of districts and closer working relationships between planning officials at central, zonal, and district level will help to improve coordination and strategic planning.

A national health programme without M&E guiding it through evidence-based planning is a national programme without clear vision or well-founded direction. As MERU emerges as a strong coordinating body, the responsibility of guiding the nation in this manner will more clearly rest with a particular entity. When the health sector begins to hold onto a vision of what the EHP is and how to move toward better deliver of the EHP, efforts to deliver services will be much more effective. Equipping MERU to play this critical role in the health sector and concentrating efforts throughout the system on improving the quality and use of data will require concrete actions as listed below.

5.1 Recommendations for Ways Forward

No.	Recommendation	Suggested Key Responsibility for Action	Suggested Processes/ Action
Urgent—To Be Completed by December 2007			
1	Establish the Monitoring, Evaluation, and Research Unit (MERU) as originally planned in the POW and MOU to fill the gap in coordination and oversight of M,E, and R activities in the health sector.	**MoH: Director of Planning;** **MoH: HMIU;** **M,E&R TWG**	▪ Begin implementing all aspects of the plans for the transition that can be put in place while awaiting final approval of the Functional Review. ▪ Allocate the appropriate human resources and finances for MERU to begin functioning in full capacity. ▪ Make public the transition from HMIU to MERU and the mandate for MERU to function as a coordinating body for M,E&R activities in the health sector.
Medium Term—To Be Started Before December 2007 and Completed By End 2008			
2	Top leadership and persons responsible for planning at every level, from the PS and the Director of Planning at central level, to the In Charge at facility level, should champion and model the importance and use of data for improving programme planning, implementation, and service delivery.	**MoH: PS;** **MoH: Department of Planning;** **MoH: HMIU**	▪ Incorporate into all existing planning meetings review and utilisation of data for planning purposes. ▪ Use examples from existing data to illustrate the importance of practical analysis and use of data to guide interventions.
3	Institute a system of mentoring in data use and strategic planning throughout all levels of the health system.	**MoH: HMIU;** **MoH: Zonal Health Offices;** **MoH: District Health Offices**	▪ Supervisions should be combined with mentoring and follow-up to ensure effective data use and strategic planning that takes into consideration the needs of all constituents. ▪ Training and upkeep with regards to the incoming computers and printers should be put in place to allow for optimal use.
4	Re-focus M,E&R on EHP service delivery and top priority indicators and targets to address problem areas.	**MoH: Department of Planning;** **MoH: HMIU**	▪ Educate the public on what the EHP is and on what can be expected of various service delivery points. ▪ Direct the focus of service providers onto the provision of

			the EHP. ▪ Use key indicators and targets for improving service delivery at each facility.
5	Improve data quality.	**MoH: HMIU** **MoH: Director of Clinical Services**	▪ Use page summaries when tabulating data from health facility registers. ▪ Strengthen data verification and quality assurance mechanisms for every level of the HMIS. ▪ Strengthen the internal quality assurance process to ensure that it is functional. ▪ Put in place an external data quality assurance system. ▪ Revise the clinical guidelines and provide training regarding the new guidelines to improve the accuracy of diagnosis.
6	The current revision of the HMIS should be expedited and completed to thoroughly address issues of harmonisation and streamlining.	**MoH: HMIU**	▪ Finalise the harmonised and streamlined indicator list and targets. ▪ Eliminate all parallel reporting systems. ▪ Eliminate dynamics of competition and isolation within the health sector (between HMIU and disease-specific programmes) and cultivate understanding, partnership, complementary roles and collaboration through strong leadership on the part of MERU.
7	Utilise M&E to bolster systems performance management.	**HRMD Section;** **Directors**	▪ Introduce a new system of performance management for facilities/departments. ▪ Ensure that clear job descriptions are communicated. ▪ Strengthen data quality assurance mechanisms to ensure that reliable data is available for monitoring.

Appendix 5.1 List of Documents Reviewed

List of Documents Reviewed

Mid-term Review of the Programme of Work

For the Malawi Health Sector

Note: The documents on the CD prepared for the MTR Team by the SWAp Secretariat are the primary list of documents reviewed. However, additional documents were reviewed, as well. The documents listed in this appendix are additional documents not included in the team list.

Name of Document	Date	Author
Checklist: Health Management Information System and Monitoring and Evaluation		Government of the Republic of Malawi Ministry of Health, Health Management Information Unit
Communication Programme: A Strategy Supporting Universal Access to TB Diagnosis (UATBD)	July 2007	Government of the Republic of Malawi Ministry of Health, National Tuberculosis Control Programme
Dowa District Health Office Annual Report: July 2005-June 2006		Government of the Republic of Malawi Dowa District Health Office
Draft Guidelines on Monthly HMIS Review Meetings for Health Facility Teams		Government of the Republic of Malawi Ministry of Health, Health Management Information Unit
Fighting Tuberculosis Everywhere: Malawi Policy on Tuberculosis Control in Prisons	June 2007	Government of the Republic of Malawi Ministry of Health, National Tuberculosis Control Programme
Format for Facility HMIS Action Plan		Government of the Republic of Malawi Ministry of Health, Health Management Information Unit
Francisco Palau Community Hospital		Francisco Palau Community Hospital
Guidelines for the District Implementation Plans	December 2006	Government of the Republic of Malawi Ministry of Health, Department of Planning and Policy Development
Hospital/Health Centre Health Management Information Quarterly Report		Government of the Republic of Malawi Ministry of Health, Health Management Information System
IMCI Approach Policy for Accelerated Child Survival and Development in Malawi: Scaling Up of High Impact Interventions in the Context of Essential Health Package	2006	Government of the Republic of Malawi
Implementation Plan for the Inception Phase of the HSS Grant		Government of the Republic of Malawi Ministry of Health
Malaria Strategic Plan 2005-2010: Scaling Up Malaria Control Interventions		Government of the Republic of Malawi, National malaria Control Programme,

		Community Health Sciences Unit
Malawi Health Management Information Bulletin Annual Report for July 2005-June 2006	January 2007	Government of the Republic of Malawi Ministry of Health, Planning Department, Health Management Information Unit
Malawi Health Management Information Bulletin Semi-Annual Report: July-December 2006	August 2007	Government of the Republic of Malawi Ministry of Health, Planning Department, Health Management Information Unit
Malawi Health Sector-wide Approach Programme of Work Progress Made on Monitoring, Evaluation and Research Indicators; Mid-year Review: April 2007		
Malawi National Tuberculosis Control Programme Annual Report: July 2005-June 2006	August 2006	Government of the Republic of Malawi Ministry of Health, National Tuberculosis Control Programme
Manual of the National Tuberculosis Control Programme of Malawi, 5th Edition 2002	2002	Government of the Republic of Malawi Ministry of Health
Monitoring and Evaluation and Health Management Information System in Malawi		Chris Moyo and Seshu Babu; Government of the Republic of Malawi Ministry of Health, Health Management Information System
Monitoring and Evaluation Capacity Improvement Plan		Government of the Republic of Malawi Ministry of Health, Health Management Information Unit
Monitoring and Evaluation Systems Strengthening Tool		The Global Fund To Fight AIDS, TB, and Malaria; PEPFAR; USAID; HMN; MEASURE Evaluation; The World Bank; Roll Back Malaria; UNAIDS; and WHO
Mtengowanthenga Data 2005/2006		
National HIV and AIDS Monitoring and Evaluation Plan 2006-2010	18 June 2007	Malawi National AIDS Commission
National Tuberculosis Programme Five-year Development Plan II 2007-2011		Government of the Republic of Malawi Ministry of Health
Northern Zone Support Office First Quarter Supervision Report: July-September 2006		Government of the Republic of Malawi Ministry of Health, Northern Zone Health Support Office
Northern Zone Support Office Fourth Quarter Supervision Report: April – June 2006		Government of the Republic of Malawi Ministry of Health, Northern Zone Health Support Office
PPM Operational Plan for Malawi		Government of the Republic of Malawi Ministry of Health; World Health Organization; Stop TB Partnership
Proposed Monitoring, Evaluation, and Research Unit		Government of the Republic of Malawi Ministry of Health

Taking Stock of Malawi's Progress Toward Abuja Targets . . . National Malaria Survey, 2004		Government of the Republic of Malawi Ministry of Health; Unicef; CDC
The Integrated Supervision Checklist	February 2005	Government of the Republic of Malawi Ministry of Health
The Road Towards Universal Access: Scaling Up Access To HIV Prevention, Treatment, Care and Support in Malawi 2006-2010		Malawi National AIDS Commission
Universal Access Indicators and Targets for Malawi: A Final Report	December 2006	Alister C. Munthali

Appendix 5.2 Schedule of Meetings and Persons Met

Schedule of Meetings and Persons Met

Mid-term Review of the Programme of Work

For the Malawi Health Sector

Note: Check-in meetings at 8:00am and additional planning and debriefing meetings with the team of SWAp MTR consultants took place throughout the duration of the assignment. Meetings were held on Thursday, 6 September 2007 for information verification and debriefing with the MoH.

Day and Date	Time	Dept./Officer	Location
Monday, 20 August 2007	3:00pm	Orientation Meeting with Team Leader for SWAp MTR Consultants	Cresta Crossroads Hotel
	5:00pm	Official Welcome by SWAp Secretariat: Dr. Ann Phoya, Dr. Haldon Njikho, Ms. Trish Araru, and Ms. Grace Chirwa	Cresta Crossroads Hotel
Tuesday, 21 August 2007	8:30am	Meeting with Team of SWAp MTR Consultants	Cresta Crossroads Hotel
	3:30pm	Briefing of the Team Members by the Secretary for Health	Ministry of Health
Wednesday, 22 August 2007	9:00am	HMIS: Mr. Chris Moyo, Mr. Seshu Babu, and Chief Statistician	Ministry of Health
	10:00am	Director of Planning: Mr. Patrick Zimpita	Ministry of Health
	2:00pm	Programme Manager for Malaria: Mrs. Doreen Ali	CHSU
	3:00pm	Director of the National TB Programme: Prof. Salaniponi	CHSU
	4:00pm	Programme Manager for IMCI	CHSU
Thursday, 23 August 2007	8:00am	Kabudula Community Hospital: Clinical Officer In-Charge Mr. Kambiya,	Kabudula Community Hospital

		Environmental Health Officer Mr. Mwale, and Nurse Ms. Nelobha Chambwinja	
	2:00pm	CHAM: Executive Director Mr. Francis Gondwe and Director of Health Programmes Ms. Desiree Mhango	CHAM Secretariat
	3:00pm	Global Fund LFA: Mr. Jacob Kawonga and Ms. Paula Ghrist	Pricewaterhouse Coopers
Friday, **24 August 2007**	8:00am	Dowa District Hospital and District Health Office	Dowa District Hospital and District Health Office
	10:00am	Assistant Statistician of Dowa District Health Office: Mr. Hacque Twaibu	Dowa District Health Office
	2:00pm	Monitoring, Evaluation, and Research Technical Working Group	Ministry of Health
	4:00pm	HMIS: Mr. Chris Moyo and Mr. Seshu Babu	Ministry of Health
	5:30pm	Progress Meeting with the Team of SWAp MTR Consultants	Cresta Crossroads Hotel
Saturday, **25 August 2007**	8:00am	Mtengowanthenga Hospital / Francisco Paulo Community Hospital	Mtengowanthenga Hospital / Francisco Paulo Community Hospital
Sunday, **26 August 2007**	1:00pm	Drive to Mzuzu with Zonal M&E Officer	Mzuzu
Monday, **27 August 2007**	9:00am	Rumphi District Health Office: Medical Officer Mr. Chavida and Assistant Statistician Mr. Kamanga	Rumphi District Health Office
	11:00am	Rhumpi District Hospital	Rhumpi District Hospital
	12:00pm	Rumphi District Commissioner, Director of Finance, and Zone Health	Rumphi District Offices

		Officer	
	1:00pm	Bolero Health Centre	Bolero Health Centre
	3:30pm	Principle of the College of Nursing	College of Nursing
Tuesday, **28 August 2007**	8:30am	Mzuzu Zonal Office	Mzuzu Zonal Office
	10:00am	Mzuzu Urban Health Centre	Mzuzu Urban Health Centre
	11:00am	Mzuzu Urban Health Centre HMIS Resource Person: Mr. James Seyani	Mzuzu Urban Health Centre
	1:30pm	Mzuzu Central Hospital: Hospital Director Ms. Rose Kolola Dzimadzi and Chief Medical Officer Dr. B.K.C. Khosa	Mzuzu Central Hospital
	2:30pm	Mzuzu Central Hospital: Assistant Statistician Mr. Harry Selemani	Mzuzu Central Hospital
	4:00pm	Regional Medical Stores—Northern Region	Regional Medical Stores—Northern Region
Wednesday, **29 August 2007**	8:00am	Drive to Lilongwe with Zonal M&E Officer	Ministry of Health
Thursday, **30 August 2007**	2:00pm	Malawi Health Equity Network: National Coordinator Mrs. Martha Kwataine	Malawi Health Equity Network
	3:15pm	Unicef Child Health Programme: Dr. Ketema	Unicef
Friday, **31 August 2007**	8:00am	Meeting with Team of SWAp MTR Consultants	Cresta Crossroads Hotel
	10:30am	Health SWAp Donor Group Meeting	The World Bank
	12:30pm	Management Sciences for Health: Mr. Rudy	Management Sciences for Health
	2:00pm	HMIS: Mr. Seshu Babu	Ministry of

			Health
	3:00pm	Initial Analysis Meeting with the Team of SWAp MTR Consultants	Cresta Crossroads Hotel
Saturday, **1 September 2007**		Writing	Cresta Crossroads Hotel
Sunday, **2 September 2007**		Writing	Cresta Crossroads Hotel
Monday, **3 September 2007**	1:30pm	DFID: Ms. Sarah Mtonya, Dr. Julia Kemp, and Dr. Matt Gordon	DFID
	3:00pm	HMIS: Mr. Seshu Babu and Assistant Statistician Mr. Patrick Naphini	Ministry of Health
Tuesday, **4 September 2007**	8:30am	Global Fund LFA: Ms. Paula Ghrist	Pricewaterhouse Coopers
	10:00am	SWAp Secretariat: Ms. Trish Araru	Ministry of Health

ANNEX 6 Institutional Development

MALAWI HEALTH SWAP MID-TERM REVIEW

INSTITUTIONAL DEVELOPMENT REPORT

Authors: Albert Mlambala and Chris Minett

September 2007

1 Introduction and background

This annex considers institutional development issues. In particular it seeks to answer the following questions:

- To what degree is there clarity and shared understanding of the functions, roles and responsibilities of the various elements of the Ministry of Health (MoH) and their relationships with key MoH Government Partners helping or hindering effective implementation of the Programme Of Work (POW);

- To what degree has the decentralisation process helped or hindered the effective implementation of the POW; and

- How effective are public private partnerships in supporting achievement of the POW outputs and outcomes?

These were drawn from the review's inception plan and were approved by the SWAp Secretariat. In addition some guidance is also given with regards to the future functions of the Ministry of Health in the context of Government's wider decentralisation/devolution policy.

The time devoted to the institutional development aspects of the review was, limited and the findings, analysis, conclusions and recommendations are only based on the interviews, meetings and visits listed in an attachment to this annex. Thus it should only be regarded as an overview of the functioning of the institutions that impact most on the delivery of the SWAp and its programme of work.

The scope of this annex is limited to the following institutions: the central Ministry of Health, the Secretariat of the Christian Hospitals Association of Malawi; the Ministry of Local Government and Rural Development; the Department of Human Resource Management and Development of the Office of the President and Cabinet; the Ministry of Finance, The Ministry of Justice and Constitutional Affairs, The Directorate of Public Procurement, The Health Service Commission, the United Nations Development Programme in Malawi; Lilongwe District Assembly; Zonal Support Office Central West Zone and Central East Zone; Dowa District Health Management Team; the Management Team of the Francisco Palau Community Hospital, Mtengowanthenga; the Health Service Commission; and UNFPA.

2 Methodology

The methodology followed for this element of the mid term review consisted of reading key documents that related to institutional development, interviews with individuals, attendance at meetings and field visits.

3 The MOH previous unit Reviews, Strategies and Achievements

The Government of Malawi has had previous sound national development policies (Devpol: 1978-1988) and significant political and administrative will to implement these policies. However, despite having health sector specific national plans, the performance of the health sector was in the past, up to 2004 seriously constrained by the weak institutional framework of the Ministry of Health (MoH), i.e. ineffective mechanisms for internal coordination and lack of capacity, characterised by high vacancy levels at all levels of the health delivery system, both in terms of health workers and administrative support services, coupled with fragmented and poor coordination with development partners.

In this connection, the team of consultants noted that, MoH has undergone several functional reviews in the past, the latest in 2003. In the bid to improve the overall delivery of health services to the Malawi population, the Ministry has had four National Health Plans (NHP), since 1965. Each NHP covered a five year period, the last one was for the period 1999 to 2004. The Ministry went through remarkable changes and to some extent this placed it in a vulnerable position, to institutional inertia. The ministry failed to achieve tangible results because of the frequent changes and lack of focus on one specific coherent and comprehensive national health strategy. In the past, progress in achieving positive results did not reach the desired levels partly due to:

- The absence of a specific focal person to manage the change process
- Lack of keen interest and timely implementation of the recommendations arising from the reviews and new strategies
- Limited institutional memory as a result of staff turn over in the senior management cadres through postings, resignations, retirement, termination of contracts etc.

In addition it is also worth noting that in the recent past the Ministry has created additional structures and/or split existing structures to fit in individuals. These makeshift arrangements have delayed progress in the Ministry's reform processes. Some cases in point are:

- Swap secretariat placement; at first placed as a section under the Department of Planning and later as an independent line management function under the Principal Secretary, and thereafter only to revert back to the first arrangement
- Establishment of the Directorate of TB prevention and control, formerly a section under the Directorate of Preventive Health Services and
- Establishment of the Directorate of Reproductive Health, formerly a section under the Directorate of Clinical Services

The review team recommends:

- The appointment of the Director of Finance and Administration (P2) as the focal person and change management officer in the ministry
- Freezing the change process, to allow the Ministry to harness and focus on channeling the abilities, energies and specific knowledge of senior managers towards achieving both short and long term goals of the ministry articulated in the current health strategy (PoW)
- Curtailing postings, voluntary and/or involuntary departure of senior management cadres from the ministry as a way of preserving institutional memory
- The MoH to develop an employee group characterized by high levels of motivation, productivity, and satisfaction by creating an environment of good interpersonal relationships, commitment, fair competition for advancement in promotions etc as a way of tackling dysfunctional organizational behaviors
- The MoH jointly with DHOs/DHMTs and District Assemblies to develop benchmarks to be used to measure progress on how effectively the ministry is meeting the needs of its constituencies in the implementation of the Essential Health Package (EHP)

The health situation has not improved much, some of the contributing factors are that health facilities are not within reach for all, the quality of services at most facilities are unsatisfactory; some facilities are underutilised and some can not be easily accessed by the rural based poor population. Subsequently, health indicators have worsened; the maternal mortality rate (MMR) is currently at 1800 per 100000, life expectancy is about 37 years, HIV/AIDs prevalence rate at 14%, infant mortality rate (IMR) is at 133 per 1000, under five mortality rate (UMR) at 203 per 1000 and it is estimated that 48% of the under five children in Malawi are stunted (MDHS 2004).

The Ministry should focus attention on fully implementing the decisions and recommendations arising from the recent institutional reviews and strategic planning processes which have primarily focused on removing hierarchical organization structures characterized by large variety of levels of management and vertical programmes on one hand, and creating lean flat structures that can lead to improved internal coordination and adoption of inclusive programme approach focused on partnership with development partners and other stakeholders in the health sector.

4. To what degree has the decentralisation process helped or hindered the effective implementation of the POW

Consultants observed that, MoH was in compliance with the recommendations of the Functional Review provided by the Public Sector Change Management Agency (PSCMA). The PSCMA operated under the auspices of the Office of the President and Cabinet (OPC) and carried out the functional review during the 1997/1998 Financial Year, i.e. to strengthen the capacity of and empower the DHOs since they were the focal point in the implementation of the district health programmes at the grassroots level. In this regard, MoH began implementing the Decentralization process during the 1998/1999 Financial year with the:

- Abolition of Regional Health Offices (RHOs)
- Creation of new posts and upgrading of the Headship post of DHO to P5
- Reorganization of DHOs to take up decentralized responsibilities
- Facilitation of direct monthly funding of DHOs from Treasury

Consultants have further observed that the Decentralization process in MoH has progressed favourably and is highly developed; following recent MoH functional reviews during 2003; and also as a result of the merger of the functions of the District Commissioner's office and the District Council and the subsequent integration of all other government agencies at district and local levels into one single administrative unit, namely the District Assembly (DA).

It has been noted that DAs have developed District Development Planning Frameworks (DDPF) that have guided the production of District Development Plans (DDPs). The production of the DDP has been a multi-sectoral consultative process championed by the District Commissioner (DC) and that transformed the DDPF into programmes and projects that can be implemented at district level. The DDPF and the DDP have provided a clear linkage and relationship between plans formulated at national level and those at district level. The DHOs have contributed towards this planning process through their District Implementation Plans (DIPs). In terms of the DIPs, that they have been derived from the Joint Programme of Work (POW) for the SWAp (2004-2010) and are developed jointly by DCs, DHMTs and Zone Offices.

Consultants have observed that the POW has;

- Clarified the MoH vision and strategy to operationalise the SWAp

- Facilitated the focus of MoH resources on its most crucial objectives contained in the EHP

- Become the reference point for the entire management process

- Communicated the corporate strategy to implement the EHP through SWAp

- Launched cross-departmental strategic initiatives and provided programme links within the MoH and with other sector programmes; i.e. AIPs

- Led to the development of DIPs which are consistent with the POW

- Facilitated that DIPs input into Annual Implementation Plans which are subject to review and comments by the HSRG in a feedback process

- Led to translation of DIPs into action at the service delivery level, i.e. in the form of implementable projects

- Led to the development of useful measures and output reporting at Zone Office level, and

- Through the SWAp facilitated increased funding levels to DHOs

It has further been noted that overall the contribution of the 29 DHOs' towards the DAs' budget for the 2007/2008 Financial Year is approximately MK6.8 billion and constitutes about 83% of the budget; the DC is the account holder and is the category 'A' signatory. High levels of transparency and accountability have been achieved in the development and approval process of these budgets.

Secondly, it has been observed that that devolution of responsibilities to the DAs by the MoH has not progressed at the desired speed; as such integration of the DHOs/DHMTs into the DAs has not been fully achieved. However, it has been noted that the MoH submitted its devolution plans to the Ministry of Local Government in mid-2002, a positive sign of being receptive to this change process.

We have on the other hand noted that weak links, limited interactions and delayed exchange of information between MoH and the Ministry of Local Government and Rural Development officials have adversely affected timely decision making to facilitate the integration of DHOs into the DAs as set out in the strategy developed by the Decentralization Secretariat, which was under the Ministry of Local Government and rural development.

The devolution deadline of 2004 has not been complied with and we have further noted that the PS' Inter-ministerial Committee on Decentralization has been inactive for a considerable period of time and reportedly it has been replaced by a new committee, namely; the PS Committee on the Economy and Public Sector Reform. This committee was constituted during the month of May 2007, has membership of 12 cross cutting ministries; and its meetings are scheduled quarterly and so far it has already met three times. The Chairperson of the committee is the Deputy Chief Secretary in OPC whilst the PS for Economic planning and Development provides Secretariat services. In addition, during May 2007 as well; Government set up the Ps' Committee on Local Government and Rural Transformation, a specialized committee comprising ministries that focus on rural development i.e. Agriculture and Food Security, Natural Resources and Environmental Affairs etc. The Secretary for Youth and Culture is the Chair and the Secretary for Local Government and Rural Development provides secretariat services. These two committees are complementing each other in championing decentralization.

The Ministry of Local Government and Rural Development has indicated that GTZ has earmarked MK10 million for decentralization review meetings involving DAs and devolved ministries. We therefore see an opportunity here that decentralization continues to strengthen structures at EHP service delivery level and we recommend, that the DOFA within the month of October 2007, upon assumption of the duties of focal person and change management officer in MoH, should initiate contacts with Molg to convene joint meetings of the seven devolved ministries to review progress on decentralization and devolution and to engage the MoLG, OPC and the Treasury to;

- Obtain an Establishment warrant for all DAs (process may take one calendar year to complete)
- Facilitate arrangements for payroll management for all DAs i.e. actual linking of the payroll to IFMIS (process may take one calendar year to complete)
- Engage DHRM&D to start the process of de-linking posts from central establishment to DAs (2 to 3 weeks) and
- Kick start the process of harmonising the Health Service Act, MoLG Act and Public Service Act to align them to the Decentralization Act (requires sitting of parliament)
- Facilitate compliance of the Health Sector Review Group (HSRG),the overall steering committee for SWAP, to scheduled quarterly meetings
- Ensure that the newly constituted TWG on EHP meets regularly and to maintain high standards in the flow and quality of information to the HSRG for decision making since it is the administrative clearing house for the implementation of the EHP.

The Consultants recommend that decisions of the 8 TWGs should be action oriented and should also feed into the meetings of the Executive management Team which is chaired by the Minister of Health.

5. **How effective are public private partnerships in supporting achievement of the POW outputs and outcomes**

Consultants observed that at present MoH, through the District Assemblies has contracted out 52 CHAM facilities through issuance of service level agreements (SLAs) throughout the country to ensure successful extension of its operations into areas where CHAM has comparative advantage, since they have expertise, are already implementing similar grassroots outreach programmes, and have developed economies of scale.

We recommend that MoH should increase the number of these private facilities; should include other service providers such as Banja La Mtsogolo (BLM) and also should continue to strengthen the capacities of these organizations in order for them to increase client and geographical coverage. MoH must therefore facilitate that:

- Service level agreements (SLAs) reflect and outline the services set out in the EHP
- SLAs should contain standardized fee scale for all contracts entered into

- SLAs template must be vetted by the Ministry of Justice and Constitutional Affairs for them to advise on the legal implications of the agreements; and

- Ensure that the Technical Working Group (TWG) on Private Public Partnerships (PPP) is fully operational and active to police and facilitate compliance of all contracting parties to the requirements of these SLAs.

6. Institutional roles and responsibilities in relation to the delivery of the Essential Health Package and Programme of Work

Role of the Ministry of Health

There is a shared understanding between all those interviewed of the core role of the central Ministry of Health. Broadly speaking it is responsible for providing overall leadership and direction for the health sector, for the development of health policy and for the strategic direction to implement agreed policy and health goals/objectives.

The current strategic direction of the MoH is the SWAp approach ie that is the chosen vehicle for achieving its purpose. ***The Minister for Health was not interviewed as part of the review of Institutional Development therefore we were unable to establish the extent to which she shares the understanding of others and whether or not it is necessary to clarify her role in relation to her civil servants.***

In addition to setting overall policy and strategic direction for the health sector, there appears to be a shared understanding that the MoH has the following key functions in the context of the programme of work and the delivery of the Essential Health Package:

- Establishing and promulgating technical/clinical policies, standards, guidelines, targets and objectives
- Monitoring and evaluating the performance of those charged with implementing/delivering the EHP (primarily district health officers both directly using civil service health workers and, increasingly, service level agreements between districts and other providers, predominantly hospitals belonging to the Christian Hospitals Association of Malawi)
- Providing technical and administrative support for district health teams.
- Transfers and postings of civil service staff working in the health sector.
- Ensuring effective regulation of the various health professionals operating in the health sector
- Workforce planning for the health sector, and, in particular, liasing within training and educational institutions over numbers of different types of health workers to be trained/educated at both basic and post basic levels.
- It is understood that the central MoH is also responsible for the strategic planning function and for co-ordinating the Distrct Implementation Plans
- All agree that, at present, the MoH is responsible for certain central functions such as the procurement and distribution of equipment, consumables and drugs through the central medical stores and the operation of the “central” or tertiary referral hospitals.
- Co-ordinating the engagement of development partners in the SWAp process
- International relations and overseas training/development.

However, there is less clarity and shared understanding of the central MoH’s role and function with regards to the supervision and management of the health workforce and the implementation of the programme of work. At present, all DHOs indicate, they are ultimately accountable to the Principal Secretary, as the Controlling Officer of the Ministry of Health.

In practice, this means, being answerable to the PS. Noteworthy, there is the DHOs line/administrative relationship with the Principal Secretary, “technical” relationships

with the Technical directors, in particular the Director of Clinical Services, an emerging "line" relationship" with Zonal Supervisors (acting as outposts of the MoH) and, increasingly close and, hierarchical relationship with District Commissioner, the Chief Executives of District Assemblies.

Consequently, given the Principal Secretary's implied span of managerial control of 28 DHOs as well as all other managerial, leadership and administrative accountabilities, it is difficult to see how the PS can exercise any meaningful supervision of the implementation "arm" of the Ministry, the districts other than through the monitoring and evaluation process.

It's clear, the abolition of regional offices led to this managerial/ supervisory vacuum and that the introduction of zonal offices is intended to re-establish some meaningful supervision and support of districts with the zonal support offices acting as outposts of the centre.

Following the abolition of RHOs, the Treasury has since 2002 funded DHOs directly, this improved DHOs ownership of the Budget as well as enhanced decentralization of decision making. There is however, less clarity about the MoH's roles and responsibilities with regards to financial accountability and human resources. The bulk of health expenditure is now devolved to district assemblies with District Commissioners being the Controlling Officers.

The Directorate of Human Resource Management and Development located in the Office of the President and Cabinet has the key role in controlling human resources across the Ministry through tight and effective establishment control. The processes for creating posts and filling posts are very complex, slow and unresponsive to what appear to be service needs. The recent GTZ report "Human Resources / Capacity Development within the Health Sector – Needs Assessment Study" (June 2007) provides an excellent analysis of the present situation. It is very clear that the DHRMD and the Treasury control this function.

It is important to emphasise, as part of this institutional review, that the central administrative and technical functions of the Ministry of Health are geared to the delivery of the SWAp. In addition over the years there has been a commendable decentralisation of responsibility for service delivery to district level.

The role of Zonal Offices

Five (5) zonal offices were established as outposts of the MoH. These zone offices were established to provide technical support and to fill the subsequent supervisory gap created by the demise of the Regional Health Offices (RHOs). The MoH realised that it needed some mechanism for supervision of districts in view of lack of capacity at DHOs that has been exacerbated by high vacancy levels in all professional cadres; approximately on average 30%. Their recent emergence (over the last six months) in support of groups of districts also has the potential to further develop decentralisation; equally, it has the potential to reinforce central control.

The staffing of zonal offices will be kept to a minimum, in addition to the Zone Supervisor there are only be two assistant supervisors on the proposed staff establishment; one leading on clinical/technical issues, the other monitoring and evaluation. The low staffing levels were deliberate in order to avoid comparisons with the former RHOs.

Supervisors schedule monthly and quarterly meetings with their DHOs and DHMTs respectively. The former serve as policy dissemination forum and the latter are operational planning meetings at which relevant District Commissioners participate.

The zonal offices perceive themselves as being to support the districts in the delivery of the EHP; there are many organisation weaknesses and capacity shortcomings at some districts.

The Zonal Supervisors have new job descriptions and a reasonable understanding of the role as an outpost of the outpost of the MoH. They believe they are the key supervisory link with districts and district assemblies aimed at supporting the implementation of the programme of work through District Implementation plans.

Unfortunately the understanding of the role of the zonal offices does not appear to be shared with the Technical Directorates of the MoH that are continuing to bypass and deal directly with DHOs, and thus to some extent undermining their effectiveness. For whatever reason, the central technical directorates ignore the role of the zonal offices. On the other hand, Zonal Supervisors reporting lines are not clear, as to whether they are accountable to the Director of Planning or the Principal Secretary.

This lack of clarity may simply be attributable to the fact that it is still very early days with regard to the establishment of zonal offices.
One important role of the zonal office is to provide an element of continuity and institutional memory across the districts comprising the zone. Turnover of key staff at district level, through transfers and postings initiated by the MoH, means that continuity of programme implementation is frequently disrupted. It is felt that the zonal office will have a key role in sustaining continuity and institutional memory. The offices also provide specialist support to the districts, for example, processing and interpreting data and supporting the planning process.

A key responsibility of the zonal offices will be to support districts and facilitating the alignment of district implementation plans (DIPs) with the programme of work and with the plans of district assemblies.

The absence of elected district councillors is also a concern, and in one zone at least, the engagement of district assemblies in a "bottom up" planning process based on village action plans, was described as "dismal". In spite of the absence of councillors, Village Health Committees (VHC) are still supposed to develop village action plans. However there needs to be a mechanism for feeding the village action plans into the prioritisation process within the district development plan. This would then need to be aligned with DIPs and the POW.

Role of District Health Offices and District Assemblies

This section of the review is based on visits/interviews at two districts and one District Commissioner that were perceived as being relatively successful and well managed. They may not be typical but illustrate what can be achieved.

At the local level there appears to be a shared understanding and clarity between local government and the civil service about the relative roles and responsibilities of the DHO and the District Commissioner. ***There is less clarity about their relationships with the central MoH and its zonal offices.***

The DHO is a member of each assembly's District Executive Team and all concerned emphasised the benefits of greater local control. In particular there is clear agreement about these roles. ***The DHO emphasised the advantages of cross cutting issues and the benefits of local control, better teamwork, better collaboration, programmatic links with other public and/or NGO programmes and much more effective local checks and balances.***

The DHOs see a lot of potential advantages of working at district level as part of a team covering several sectors, agriculture, education, gender and community services, transport, water etc in delivering the EHP/POW. There is the potential for health plans to be integrated with and strengthened by plans with other sectors at district level which would compliment their work. Programmes need to link up and take advantage of other related ***interventions*** As far as

the two districts visited were concerned, their health District Implementation Plans were fully aligned with District Assembly plans.
The DIP is a funded plan prepared jointly by the DC and the MoH, however, the DC doesn't have a say about ceilings. The DHOs interviewed were firmly of the view that since the district health budget has devolved to the District Assembly; things are much more straightforward, less hassle, fewer cuts – getting what they're asking for. They recognise that much of this can be attributed to investment through the SWAp.

At approximately MK6.8 billion, the health sector budget forms almost 83% of the entire the District Assemblies Budget for 2007/2008 Financial Year. Interestingly it had been observed by several commentators at the centre, that District Assemblies "really only wanted the health function to be devolved because it came with significant financial resources". The implication being that District Assemblies wanted to get their hands on health resources and that they might be diverted for other uses or misappropriated. Based on the experience of the two districts visited, the opposite is the case, the DHOs have found that availability of and access to funds has much improved since budgets were devolved to Assemblies.

District Commissioners are starting to be engaged in DHMT quarterly zonal meetings and this has the potential of further building a collaborative approach at a local level. Another advantage of the integration of DHOs in the institutional arrangements of the District Assemblies is that they now have much better access to well established structures and systems at the grassroots level including better interaction with Traditional Leaders (Chiefs) who are under the jurisdiction of the Ministry of Local Government and other key opinion formers in the communities they serve. ***The DHOs recognise that the DC provides key leadership in coordinating all development activities focussing on reducing poverty and inequalities, disease, hunger and other challenges that hinder both improvement of the livelihood of rural based communities and overall sustainable development.***

In one case (Lilongwe) the DHO has sat on the District Executive Committee for three years, the DHMT's accountant works to both the District health office and the assembly. The District Commissioner regards the health workforce working in his district as being on secondment or outposted from the civil service to local government.

Sees no significant problems with health staff moving from being civil servants to becoming employed by the District Assembly, assuming terms and conditions are no worse than at present – only downside that could be envisaged was the loss of the promotions and transfer/postings available across the civil service, the concept of having to resign and apply for vacant jobs was a new concept.

At the district level the role of the central MoH is understood but not accepted as being helpful in delivering the programme of work locally. The main areas of irritation/concern were:

"Inappropriate" interference by technical directors from the central ministry in the operation of the districts with no clear lines of accountability.

Irrational distribution of resources – anecdotally there doesn't appear to very much rational for allocating resources, it was felt that it wasn't based on need but more on historical allocations and a perceived need for fairness that didn't necessarily reflect need.

Apparently arbitrary and frequent transfers and postings of key staff so there is little if any continuity or institutional memory able to implement programmes and schemes effectively. The new appointees often have to learn from scratch.

The ineffective supply of drugs and equipment through the Central Medical Stores. Whilst it is acknowledge that the districts now have powers to procure drugs directly, the conditionalities are irritating and from the perspective of the districts, counterproductive. In particular the fact that if the CMS cannot supply a commodity, the district is forced to

request permission of the CMS to procure what it cannot provide rather than just get on with it. They are also required to use a list of approved contractors, which, presumably is the same as that used by the CMS. In these circumstances, why should the district be required to use suppliers who have already proved unable to supply the CMS.

Role of the Health Service Commission

There is widespread, shared understanding of the role of the Commission. It is, basically, to recruit, appoint, confirm and discipline the government professional/clinical trained workforce. It does not deal with the subordinate classes of workers. It covers 11 categories of staff from nursing auxiliaries (who undertake formal training) to doctors and dentists.

10 Commissioners appointed by the President subject to confirmation by the Public Appointments Committee. Appointed for a term of three years that can be renewed. The majority of Commissioners have health service backgrounds

The Commission was established through the Health Services Commission Act 2002 and became operational in 2003. This act allows for the Commission to decide the terms and conditions of service of the staff it recruits, however, this provision has never been implemented. This is because the Health Services Commission Act is, specifically, subject to the provisions of the wider Public Services Act and, to date, the Office of the President and Cabinet (in the form of the DHRMD) has reserved this task for itself. This is seen by the Commission as a major shortcoming in delivering their role for the health sector. Having said that, there is no confusion in the minds of any stakeholders that, with the Treasury, the DHRMD controls overall pay policy.

The HSC is due to launch its strategic plan covering the period 2007 to 2012 that seeks to clarify its role as the human resource recruitment authority in the Health Sector.

Role of the Ministry of Finance

Very clear understanding by all concerned that, at present the MoF controls the flows of financial resources, ***has the final decision on establishing and designating cost centres, issues budget ceilings, and consolidates sector budget estimates into the government budget for presentation to parliament. The MoF has always supported the idea of direct funding to cost centres and for the latter to be held accountable for the financial resources allocated to them from the national budget.***

The DHRMD controls establishments across the MoH and, with Treasury (on matters of affordability and financial control) decides terms and conditions of service and is mandated to carry out functional reviews of ministries at 5 years intervals and as and when government may direct.

Role of the Christian Hospitals Association of Malawi

Institutionally CHAM is an ecumenical association, founded in 1966, with a Secretariat representing the interests of its members. It now engages in capacity building. In the context of service level agreements it is not able to commit resources on behalf of its members thus agreements between government and CHAM are, in fact, with individual CHAM members. It is very active in the wider African association of Christian hospital associations.

Hospitals and clinics affiliated to the CHAM are major providers of healthcare in Malawi providing between 37 and 40% of the total health care provision for the country. Thus it is a major strategic partner for Government and signatory of the SWAp memorandum of

understanding. The CHAM is well represented in all institutions and management arrangements.

The association comprises 169 facilities including 18 hospitals. According to the CHAM. CHAM members operate 10 out of the countries 12 teaching/hospitals and training establishments and 77% of their graduates are subsequently employed by government facilities.

The salaries of staff working in the association's facilities are reimbursed through government subvention but CHAM members do not receive the salary "top ups" paid to government staff. The association feels that they should be automatically. Typically members of the CHAM charge for services provided but a number of services are provided without charge, for example ARV treatments and immunisation where government provides drugs and consumables.

Association members are excluded from the payment of salary "top ups" in hard to reach areas. It feels their facilities should be included automatically. Similarly with training opportunities, the view of the association is that staff from their facilities gets "second best" with the best opportunities going to government staff. Although the association's members are able to use government's procurement and distribution services, through the Central Medical Stores, they are so dissatisfied with the service that the CHAM plans to establish its own central medical stores and distribution network, presumably run in parallel with the government system. CHAM facilities do not benefit from government investment in infrastructure.

Over the last three years the CHAM has supported its members and facilitated the development of service level agreements for the provision of free maternity services in defined catchment areas around particular facilities. The agreements are with district health officers. The contribution of service level agreements to the delivery of the SWAp's programme of work is considered in more depth in section 5 of this annex.

Some concern was expressed by the association's Secretariat that government may be considering the construction of health facilities in "CHAM areas" and fear that they may simply be being used as a short term, "stop-gap" until such time as government is able to provide services through its own facilities.

The CHAM Secretariat and individual member hospitals seem to understand and recognise the leadership and funding role of government but there is a degree of suspicion and mistrust, in both directions, about the motivation of the other. For example, amongst government circles, there is a suspicion that CHAM facilities benefit from undisclosed donations and support from benefactors.

7. Institutional roles and responsibilities with regards to the decentralisation/devolution of the implementation of EHP services to District Assemblies

The Government health services and, for that matter, services provided by members of the CHAM on behalf of government are already decentralised to the extent that the main focus of health services delivery is the health district. There is general understanding that the District Health Officer is the pivotal officer responsible for delivering health policy and the programme of work at a local level.

The wider public sector reform envisaged by the Decentralization Act of 1998 specifies that the implementation of public services at district level should be devolved from the central government ministries to local government in the form of District and City Assemblies. Thus responsibility for the provision of health services, including implementing the programme of work and the essential health package for all Malawians would shift from the civil service, controlled centrally, to 29 assemblies. Each would employ its own workforce to deliver services.

The Ministry of Health's Principal Secretary is of the view that devolution to local government control will not happen during the lifetime of the SWAp that is 2010. Having said that, the Ministry of Local Government is of the view the process of transfer as early as 2008, starting with education and with the other ministries, including health, following on fairly quickly afterwards.

Finally, as far as at least one District Commissioner is concerned, the services are already devolved. He regards the fact that he is the Controlling Officer for all health expenditure in his district means that he is in charge. He regards the health staff in his district, currently employed as part of the civil service as being on secondment to the district.

In spite of the Principal Secretary's view that devolution will not happen during the lifetime of the SWAp a number of measures that will enable and facilitate devolution are already in place:

- The fact that the ministry has already largely decentralised the delivery of its services to the district level, strengthened District Health Management Teams and has developed zonal offices to support the decentralisation process.

- Operational health budgets have already been devolved to District Assemblies with the District Commissioner as the Controlling Officer for those funds.

- The Office of the President and Cabinet has recently approved an implementation warrant that, following a functional review of the MoH, clarifies the approved establishment for the centre and districts. The warrant establishes a Directorate for Health and Social Welfare in each district headed up by a Director: Health and Social Welfare. This post reporting directly to Assembly's District Commissioner/Chief Executive. ***The official communication from the Treasury has not yet been released to DHRM&D at the moment.***

- There are already examples of positive collaborative working at district level with District Commissioners engaging in the leadership and management of health services through the district and zonal health offices. Similarly District Health Officers are already members of an Assembly's top management team, the District Executive Committee.

- The fact that one of the key mechanisms for extending the delivery of the essential health package, service level agreements, are developed, implemented and managed at district level. The SWAp Secretariat and the CHAM Secretariat have extensively supported districts and members of the CHAM engaging in these agreements but, ultimately, the responsibility lies with the signatories to each agreement at district level. It would therefore be relatively straightforward to transfer these contracts to district assemblies.

8 Service level agreements to support in support of delivery of the programme of work and its essential health package

The development of service level agreements to deliver elements of the Government's essential health package services through non-government appears to have the potential to be a key strategic vehicle for the delivery of the package.

The SWAp Secretariat and the Secretariat of the CHAM have worked effectively with other key players through the Public Private Partnership Technical Working Group to develop a framework for the development of service level agreements at local level. The process is about to enter its third annual round of negotiations and to date 55 agreements have been made with non-government providers.

The facilitation and support role of the SWAp and CHAM secretariats has been key to the success of the service level agreement initiative. An indication of their success is that, in the district visited, the DHO feels able to explore and develop ways of extending the range of services provided with more providers.

The vast majority of service level agreements have been with facilities that are also members of the CHAM and nearly all of them have been for maternity services. In all cases there has been a dramatic uptake in women availing themselves of the services. In the area visited, it is their view that women who otherwise would not have attended for antenatal care or have had their delivery in hospital were benefiting from the arrangement. It was also their view that women were choosing to attend rather than travel the 20+km to the nearest government facility providing essential maternity services.

The provider visited was one of the first CHAM facilities to enter into service level agreements with a district. Initially they ran trials and signed their first agreement that started in January 2006. The hospital is now negotiating its third service level agreement, for 2008 and it plans to extend the agreement to paediatric services for the under fives.

The service level agreement was facilitated by the construction of a new maternity unit (funded by donations raised by the hospital) that enabled the hospital to accommodate the additional workload. Thus the capital cost of the unit was funded by donations raised by the facility itself but opening it was only possible because of the income derived from the service level agreement with the district health office.

The CHAM hospital visited was planning to negotiate an agreement with the District to include paediatric services for the under fives in the next year's (2008) agreement. It appears that this is also the intention in other districts.

From the perspective of the provider hospital, their only real concern related to the fear that, if they extended their service level agreements with the district, it could result in the hospital being overwhelmed and the creation of bottlenecks. They perceive themselves as providing better quality services than the government providers and worry that if there is a "free for all", they would attract more patients than they could cope with and that this would have an adverse on their services and central mission.

This very real concern underscores the need a more strategic relationship between the provider and the district health office so that developments and extensions of service level agreements can be planned in a managed, sustainable manner. As part of the partnership process, hospital representatives meet regularly with the DHMT and their plans are included in the DIP. It appears to be a very positive and constructive relationship. For example, there is an, as yet unused theatre in the new maternity unit and the District is training CHAM staff so that it can be used for EOC through the service level agreement.

The hospital's major barrier to extending the agreements to other essential health package services is the lack of staffing. They believe this could be overcome to some extent by additional staff accommodation. They have not, as yet considered seeking investment from the district. Clearly if there were a long-term strategic partnership, there would be the potential for the District to invest.

The District Health Officer of Dowa District, where the facility visited was located currently has four other service level agreements with hospitals belonging to the CHAM. These are also all for maternity services and as the current contracts are coming to an end, they are also planning to extend them all to include paediatric services for the under fives. The district shares equipment with the CHAM with which it has agreements and have installed radios in each facility.

The district is also planning to set up a service level agreement with a CHAM provider located outside their district but it has the potential to provide services to residents of Dowa district that live near the border. The district also has an agreement with an army facility to use their ambulance to ferry patients to a CHAM hospital with whom the district also has an agreement. In return the district provides the fuel for the ambulance and has provided it with a radio.

The District Health Officer believes that service level agreements will be the main mechanism at district level for the implementation and delivery of the SWAp programme of work. As yet the DHO has given no consideration to the idea of the DHMT developing a commissioning arm to extend the use of SLAs with the private sector, company health facilities providing services to workers and their families on agricultural estates. However she sees service level agreements as a long-term arrangement and, for the foreseeable future that the CHAM hospitals and government would collaborate through a strategic partnership rather than compete.

It is important to emphasise that the above findings only relate to one district's approach to developing service level agreements for its population and the experience of one provider. The district itself now develops its own agreements identifying appropriate facilities and defining the potential catchment population to be served. They are supported in this task by the CHAM and SWAp secretariats. Proposals for new or extended service level agreements have to be included in District Implementation Plans.

There are 52 other service level agreements across Malawi including one, in Zomba for mental health services. There is no reason to believe that the experiences of the district and providers in the district visited are necessarily typical of the rest of the country. However, it does demonstrate that, at least in one district, service level agreements can contribute significantly to the improved delivery of the programme of work.

An important point to raise here is that SLAs are currently focused on service provision, with the agreements signed to deliver specific services for a specific area. The facilities then report on numbers of people treated so that they can then invoice for services provided. There is no overview of whether the services provided are of a particularly quality, nor do SLAs seek to hold facilities to improving outcome measures. This is a missed opportunity for the MOH, which could be piloting performance based SLAs with non-governmental facilities, with a view to extending the same performance monitoring to government facilities as well.

9 Analysis and Discussion

Roles and responsibilities

The central administrative and technical functions of the Ministry of Health are geared to the delivery of the SWAp. There has been commendable decentralisation of services to the district level and the development of zonal support offices for groups of districts. However there is still the need to build on this success and push decentralisation further within the MoH.

Strengthen zonal offices and help them to develop a "light touch", enabling approach to supporting districts and be the main focus for monitoring and evaluating the service provision at district level and the conduit through which policy is implemented and planning undertaken. In this context it is important that the lines of accountability between the zonal offices and the central ministry be clarified.

During the review it was observed that, at district and zonal levels there was a feeling the central technical departments of the ministry had not fully embraced strategic direction of

decentralisation and in particular, the role of the zonal offices as the main mechanism for the supervision of districts.

The observation was that they frequently bypassed the zonal offices thus seriously undermining their effectiveness. It is very early days for the establishment of zonal offices but it is very important that all the key players in the ministry, the zonal offices, districts and, possibly district assemblies, have a clear, shared vision of the role and responsibilities of the zonal offices.

It would also be sensible to consider what the ultimate function of a zonal office might be in the context of full devolution of health services to District Assemblies. There will still be an important policy, planning and monitoring and evaluation and advisory role for the central health ministry and it will need to engage supportively with District Assemblies and their health departments.

As the MoH continues to decentralise to district level it should also devolve appropriate central functions such as the procurement and management of the supply chain for drugs and consumables to more autonomous, better managed organisations. Similarly the central hospitals should be established as more independent, self-governing trusts within the public sector. The aim of removing these organisations from the direct control of government would be to give them greater freedom to improve performance, responsiveness and effectiveness and thus support delivery of the programme of work.

It should however be noted that this will still require significant capacity building that could also divert attention from service delivery. The one organisation where there is unanimity that things must change is the Central Medical Stores. It would be envisaged that relations between the different parts of the ministry would be governed by service level agreements.

These reforms, whilst they would be internal to the ministry of health over the next three years would also position these institutions for devolution of service delivery to district assemblies and start to free up the central ministry for its key sector leadership, policy development, strategic planning and monitoring and evaluation roles.

<u>The central functions of the Ministry of Health in the context of decentralised and/or devolved district services.</u>

As part of the review process the team was asked to propose what should be the key functions of the central ministry in future. It is proposed that the ministry should work towards developing organisational arrangements or structures that enable it to deliver the following key functions:

Ensure Government through its Minister for Health is provided with appropriate, high level advice, information and guidance on health policy that takes into account best practice in developing countries and Government's wider development agenda.

Overall strategic leadership of the health sector including government health services, local government health services, services provided by the faith based and NGO health services and services provided by the private sector including company based schemes.

Deciding health policy and strategic plans for publicly funded health services ie those provided by District Assemblies, by "autonomous" central hospitals, training and education institutions and "independent" central institutions such as the "reformed" central medical stores. This will include the setting of national goals, targets and objectives to be delivered by District Assemblies.

Monitor the implementation of strategic plans by publicly funded the health providers and institutions and evaluate their effectiveness in the context of the health objectives and goals in its strategic plans. This include, increasingly services provide through service level agreements with non-government providers.

Set standards and regulate the wider health sector by ensuring the registration of all health premises (including those that are publicly funded) and personnel to ensure they meet the standards that are set.

Maintain effective, mutually beneficial relations with other statutory bodies that have a direct impact on the delivery of its strategic plans, these will include the National Aids Commission, the Health Service Commission and other key ministries concerned with finance, economic development, local government and, in particular District Assemblies.

Ensure the provision of appropriate, credible public health and technical/clinical advice to the whole health sector and ensure the provision of key central services in support of the District Health services provided by District assemblies.

Workforce planning for the health sector, and, in particular, liasing within training and educational institutions over numbers of different types of health workers to be trained/educated at both basic and post basic levels.

Co-ordinating the engagement of development partners in the SWAp process

International relations and overseas training/development for the publicly funded health sector

Transfers and postings of civil service staff within the central health ministry ie not those employed by autonomous central hospitals or institutions, education and training establishments or those employed by district assemblies.

Service level agreements

The concept of government ensuring the delivery of free essential health package services through service level agreements with non government providers appears is central to Government's strategy for delivering its programme of work.

Thus far the approach seems to be working well and commendable progress has been made both with the leadership and support of the SWAp Secretariat and the Secretariat of the CHAM.

There is clear evidence in at least one district (Dowa) that it is working collaboratively with CHAM hospitals serving its district to extend the delivery of maternity services and they are planning, together, to extend their agreements to paediatric services for the under fives.

Everything is not perfect and there will continue to be problems and issues but, where service level agreements are working effectively there seems to be the will to resolve issues and move forward. One of the problems facing both districts and their CHAM providers is the reality that contracts are only for one yea. Longer term agreements, reviewed and adjusted on an annual basis to take account of inflation and any changes in requirements, could be developed at district level in the context of a strategic partnership agreement between the District and individual providers.

These agreements would need to be aligned with district health plans and the plans of district assemblies. The advantage would be that both parties would have much more certainty about their medium to long term futures. For example such strategic partnerships should reassure providers that, for the foreseeable future and subject to satisfactory performance, they would continue to be the provider of a range of government services to their defined population. The

planning assumptions in such a long term strategic agreement would then inform the providers own strategic investment and development plans.

The strategic partnership agreement could be underpinned by a formal memorandum of understanding and there is no obvious reason why, with appropriate planning, service level agreements should not be extended to the provision of the full range of essential health package services locally to a defined population. This could be either alongside government facilities but working in partnership or for a discrete population defined by age, gender, condition or geography.

This element of the mid term review simply considered the mechanism of the service level agreement in the context of the Malawian health system and found it to be a simple and effective way of delivering some of the essential health package on behalf of government. This part of the review did not consider the value for money, affordability or sustainability of the approach in financial terms.

As mentioned above, the use of SLAs could also provide an opportunity for the MOH to introduce performance monitoring into the health system. Several countries in Africa and in Asia, in particular very resource constrained countries, have begun to introduce performance based financing and/or performance based contracting to increase value for money, and to have the measures defined that would allow the government to monitor whether they are indeed improving service quality and efficiency. Countries as diverse as Uganda, Rwanda, South Sudan, Pakistan, Afghanistan and Cambodia have developed a performance based culture through shifting the way the MOH uses routine information. There are the seeds for developing a similar system in Malawi, based on the experience of the infection control certification programme. Almost all the health facilities visited by the team were highly motivated to improve infection control so that they could be certified. Imagine having the same energy and effort put behind increasing and improving basic service coverage, submitting HMIS reports on time and using HMIS data for planning and monitoring at local, zonal and central levels.

Devolution

There is obviously a lack of clarity about what is happening with regards to devolution and implementation of the wider public sector reform programme and, in spite of the Principal Secretary's view that nothing will happen in the lifetime of the SWAp, the fundamental question has to be asked. At some time in the future (and the key question is when), will the Minister of Health cease to be responsible for the direct delivery of local health services and that responsibility be with the 29 District Assemblies?

The uncertainty and lack of any clear strategic direction for developing the institutions for delivering the programme of work in the future has the potential to destabilise the implementation process with officers focussing more on their futures than on the job in hand.

A good example of this potential is the role of the central human resource function in the Ministry of Health in the context of the SWAp. Most commentators agree that, of the six pillars of the SWAP, the human resources pillar is probably the most critical to the successful implementation of the programme of work. Consequently the HR function and HR capacity need to be strengthened, the question is which HR function?

Capacity building is a long-term exercise and, If devolution is going to go ahead in the next couple of years, the obvious place to build HR capacity would be at District Assembly level. They will, after all, be the major employers of public sector staff. Whatever happens there will still be the need for strategic workforce planning to be undertaken by the central Ministry of Health.

The human resource consequences of major public sector reform are considerable and, given that a number of sectors will be engaged in the process, it might be appropriate for the Ministry of Local Government to take the lead in managing the organisational change process.

Another key question with regard to the decentralisation/devolution agenda is, which institution will be responsible for leading, co-ordinating and managing the process. Given that a number of ministries that will be engaged in the devolution process, the logical institution would be the Office of the President and Cabinet although an argument could be made for the Ministry of Local Government and Development taking the lead.

10 Conclusions and Recommendations

The question *"To what degree is there clarity and shared understanding of the functions, roles and responsibilities of the various elements of the MoH and their relationships with key MoH Government Partners helping or hindering effective implementation of the POW?"*

Most of the current functions, roles and responsibilities of the various institutions that comprise the Ministry of Health are well understood by those within the ministry and, generally, by those in local government and other branches of central government such as the Health Service Commission, the Ministry of Local Government and Development, the Office of the President and Cabinet (including the DHRMD) and the Ministry of Finance.

The leadership role of the central ministry and its decentralised district also appears to be understood by its main strategic partner, the Christian Hospitals Association of Malawi.

The main area where there is a lack of clarity relates to the role and function of the new zonal offices – this needs to be resolved especially in the context of the Ministry's decentralisation of services to the district level. The lack of clarity is particularly important with regard to the potential for role conflict between these new offices and the Ministry's central technical departments as they relate to district health services.

The roles and behaviours of district health management teams seem to have developed in line with the ministry's wider decentralisation policy but the ministry's central technical departments seem to be less willing to "let go" their supervisory functions in relation to districts and the zonal offices. This leads to irritation and additional work that is likely to slow down decision making and undermine the effective delivery of the programme of work.

It is recommended the Ministry should facilitate workshops, designed and facilitated by an organisation development specialist with the aim of:

- clarifying the role of the central technical directorates of the MoH in relation to the zonal offices and districts;
- developing clear, concise, agreed statements of purpose for each directorate that could be incorporated in job descriptions; and
- developing practical strategies for capacity building for each function/directorate and district that will support the move towards greater decentralisation and, ultimately, enable devolution of district health services to district assemblies.

Question: *"To what degree has the decentralisation process helped or hindered the effective implementation of the POW?"*

On the basis of this review, the DoH's current policy of decentralisation is contributing significantly to the implementation of the programme of work – it is only where there is a

reluctance on the part of central, technical directorates to decentralise that it is not as helpful (see above).

It is advised that the MoH should continue to build on this success and further develop the process with the zonal offices playing a key role in supporting and empowering district offices to implement the programme of work at district level. The zonal offices could take on a more important role in monitoring performance as well, should the MOH move to adopting performance indicators. The zonal team would be key to validating performance information coming from districts, reviewing service quality and identifying and giving extra support to under-performing districts

It is also recommended that the ministry of health should continue to encourage the development of initiatives and delegation of responsibilities that will, ultimately, enable the devolution of district health services to district assemblies.

It is recommended that, working with the ministry of local government and the Office of the Office and Cabinet the Ministry of Health should develop a "road map" for full devolution of the responsibility for the delivery of the local essential health package to district assemblies. However we conclude that it would probably be unhelpful as far as the programme of work and delivery of the essential health package is concerned to start the process of devolution (rather than decentralisation) before 2010. It would inevitably divert energy and capacity from the task of delivering the essential health package. It is strongly recommended that only enabling measures, including capacity building in District Assemblies, should be undertaken before 2010.

If it were decided to start the devolution process before the end of the current POW, it is strongly recommended that implementation should be phased and linked to capacity building primarily for District Assemblies. Devolution should start with the most capable, well governed districts.

Question: *How effective are public private partnerships in supporting achievement of the POW outputs and outcomes?*

Public private partnerships, as exemplified by service level agreements between the District Health Officers and facilities that belong to the Christian Hospitals Association of Malawi appear to have been very successful initially. They are not overly bureaucratic and time consuming and they have been fully aligned with each district's implementation plan for the programme of work.

The service level agreement mechanism seems to be a simple and effective way of district's engaging additional capacity from non-government facilities to provide government funded services. If it is financially viable and affordable mechanism, districts should build on their success and develop long term, strategic partnerships with approved providers to provide more elements of the essential health package to their populations.

Specifically it is recommended that the SWAp and CHAM secretariats should develop policy guidance that will further encourage districts to plan for extending their service level agreements. The aim would be to build robust, strategic partnerships at district level that would enable services to be provided for government through service level agreements for the foreseeable future.

This guidance should build on existing good practice and explore the potential for working in partnership with different providers, for example, other NGOs, "company" health centres serving agricultural estates and the private sector.

What is less clear, as noted above, is the degree to which PPPs are contributing to EHP/POW outcomes. For example, Rumphi and Dowa District both reported that antenatal visits and facility based deliveries had increased in CHAM facilities where they have SLAs. However, it is

not certain whether this has contributed to an overall increase in service use, or is simply a reflection of service users going to other providers. It is also not possible to measure at this point in time the degree to which PPPs, as regulated through SLAs,

Recommendations:

Recommendation	Suggested Key Responsibility for Action	Suggested Processes/ Action
Improve understanding of the impact SLAs are having on increasing service access overall	ME&R TWG	• Commission a study that seeks out and examines the impact SLAs are having on overall access to and use of services from a district perspective. Key questions to ask would be: o Is there an overall increase in use of antenatal and delivery services by women, or are women who would normally use a public provider shifting to use an SLA provider?
Broaden the terms and conditions of the SLAs so that they a)include more of the EHP and b) are performance based	Directorate of Planning	• Increase the numbers of services covered by the SLA. If it is not realistic to contract for all EHP related services, ensure that at least all maternal and under-five related services are covered; • Determine a few performance indicators to be used by districts and zones to monitor how well facilities with SLAs are performing and how they are contributing to improving health in a district • Suggested indicators could include o % of SLA facilities with infection control certification; o % of SLA facilities sending in fully completed HMIS reports on time o EPI coverage of SLA catchment o Antenatal visit coverage of SLA catchment o Assisted delivery coverage of SLA catchment o % of SLA invoices paid within four weeks of receipt • Designate zonal offices as the responsible body for validating district performance monitoring of SLAs

ANNEX 7 Pharmaceuticals

MALAWI HEALTH SWAP MID-TERM REVIEW

PHARMACEUTICALS TECHNICAL REPORT

Authors: Mechtild Hülsmann, Andrew Marsden, Friedrich von Massow

September 2007

1.0 INTRODUCTION AND BACKGROUND

The initial draft Scope of Work for the "Pharmaceuticals Technical" section of the study was presented to the three team members, being Friedrich von Massow (team leader) and Mechtild Hülsmann, both of GTZ, and Andy Marsden of MSH. The team met for the first time in Malawi at the beginning of the assignment on Tuesday 21st August 2007.

At an initial meeting on Wednesday 22nd August 2007 with the Drugs and Medical Supplies Technical Working Group, clarification of the requirements was given to the team and three additional items were agreed and added to the Scope of Work. These items were i) a quality assurance review; ii) a drug price comparison study and iii) a broader comment on supply chain systems.

Subsequently, the Scope of Work objectives were divided up between the three team members, who had different visit schedules and departure dates.

Reviewed TOR: Report production resourcing decisions as taken by the Pharmaceuticals Technical Team at the outset of the assignment:

1. Review the progress in forecasting (AM), procurement (FM) and distribution (AM) and supply (AM) of drugs for the financial year 2006/7.
   Add also: Quality Review (FM) & Price Comparison (FM).
2. Review the integration of supply system (AM)
3. Review reports on drug availability at all levels of health care (MH)
4. Validate the quantification data (MH) and methods (AM) and whether projections are valid. (MH)
5. Review the supply chain manager (AM + other systems)
6. Review the implementation of the CMS improvement plan. (AM)
7. Assess the adequacy of the proposed minimum set of pharmaceuticals, supplies and sundries for the delivery of the minimum health care package by levels (FM lead)

2.0 APPROACH AND METHODOLOGY

The information-gathering was then conducted primarily by consultation meetings with SWAp stakeholders in Malawi, mainly in and around Lilongwe, supplemented by field visits to health facilities and practitioners. This included a three day trip to the Southern Region conducted by Andy Marsden and Mechtild Hülsmann (for full listing of consultees, see Annex PH 1). Furthermore, a range of documents/reports has been consulted (see Annex PH 2).

Because of the limited time, the analysis refers to drugs *sensu strictu* only, i.e. using CMS classification: A > tablets and capsules / B > injectables / C > Vaccines / E > galenicals. In the CMS catalogue 2005/06 these are 275 items, 207 thereof are given the priority "A".

At all the other levels, data and information have been asked for from all facilities and/or institutions visited, where and if felt necessary or helpful. Conclusions based on these data may not be statistically sound but can provide a predominant trend.

3.0 FINDINGS

3.1 Forecasting, procurement, distribution and supply of drugs inclusive of aspects of quality assurance

Licensing status and quality assurance
In general, a tender-lot is only awarded to a supplier if the products are registered in Malawi. For supplies of non-registered drugs the WHO donation principles have been applied which were officially adopted mid- 2007 only (in a version adapted to local needs). Before first supply, samples have to be sent to National Drug Quality Laboratory for testing on compliance.

Due to other donor financed parallel/vertical programmes it could be seen **as a rule** that **GMP compliance is required with one of the following four schemes – WHO pre-qualification; US/ FDA; European/ PIC-S; Japanese – if a specific pharmaceutical is not registered in Malawi**. Even then accelerated registration may be requested as it was in the case of Coartem of Novartis for the upcoming ACT programme. This took about 5 months.

Tender procedure and procurement
The majority of medicine lots of the last 2004 tender had been awarded to pharmaceutical wholesalers located in Malawi. However, most of these items are of foreign origin , which can add to the lead time needed to move from drugs procurement to distribution.

The tender procedure is based on the current forecasting procedure and needs about ten steps (see Annex PH 3) which takes about nine months time until first delivery. If the time spent for preparation at CMS is taken into consideration, the total lead time adds up to about one year. This lead time of more than 12 months could be cut down by several months, if the tender/purchase procedure would result in framework contracts awarded for a two years period (with the option to extend for one more year). This procedure is applicable for World Bank financed tenders, e.g. UNICEF central warehouse at Copenhagen is applying such framework contracts. *Inter alia* a framework contracts based tender procedure (see Annex 8b) allows for pre-defined delivery dates and, thus, opens the road to finally arrive at a country-wide no-stock-out situation.

An analysis of the documentation of the CMS receipt section shows that in July 2007, one and a half years after awarding the original 2004 tender, five items had been delivered in highly insufficient quantities at about 20 to 80% only (received quantities: Amoxycilline 250mg caps = 19.3%; Cotrimoxazole 480mg tabs = 67.1%; Quinine sulphate 300mg tabs = 77.5% - all from SADM Pharmaceuticals; Chlorhexidine sol. 4% = 40% from Worldwide Pharmaceuticals Distributors; SP 500/50mg = 86.7% from Premiumway Intern.l Ltd), another three have been "pending" at 100% – Aminophylline inj, Benzypenicilline 3g vials and Gentamycine eye drops – the latter three belong to lot 4 awarded to the City Pharmacy Ltd. Lilongwe. This means that until July 2007 **about 10% of the tendered items had never reached a satisfactory stock at CMS/RMS level**.

In total, the last tender (2004 / awarded in January 2005) covered 74 "A" priority items of the dosage forms A, B and E and one of "B" priority. The value of the lots of **the 2004 tender totalled up to US$ 4.4 million (for medicines *sensu strictu*), i.e. US$ 0.342 per capita for 12.86 million inhabitants (data of 2004) or 3.7% of the SWAp budget for 2005/06**. As a basis of comparison: WHO recommends spending about 4-6 US$ basic drugs per capita per year; most developing countries spend about 30% of their annual health budgets on medicines. A simplified cost estimation (see Annex PH 8d) arrives at about 6 US$ basic drug costs per capita, coming to a total of about US$ 80 million; a figure which includes also drug supplies at present arranged through CHAM and some NGOs. An additional 9 US$ per capita is required to cover drug needs for special programs (malaria, TB, HIV/AIDS, FP & MCH)

Purchase prices and cost recovery aspect
The CMS catalogue of 2005/06 shows sales prices to the health facilities that also include a mark-up for recovery of CMS/RMS costs. This is a reasonable and meaningful step on the road to implementation of a CMS/RMS Fund. But Missionpharma / Denmark has been awarded 8 of the 74 "A" priority items at prices which nearly match (- 7.1%) or exceed by far (up to + 45.9%) the CMS sales price to customers.i.e. **about 10% of the tendered items have been awarded at prices exceeding the CMS catalogue sales price to customers by up to 50%**.

Stock situation at CMS/RMS stores
The presently applied stock and distribution situation results in particular from the tender of 2004 based on 2002/03 data and awarded in 2005. In addition, an emergency supply was awarded to UNICEF in October 2006. This supply is composed of 106 containers the last of which was cleared for distribution only in August 2007. This is a lead time of about 10 months or nearly 1 year after awarding the contract (Annex PH3).

In February 2007, at the Regional Medical Store "Centre", 151 drug items had been out of stock plus 6 new expiries (value: US$ 35,049 by 2006/07 catalogue prices), i.e. a total of **158 items out of 267 were not available (= 59.18%)**. By the **end of July 2007, already** 187 stock items **(=70.04%)** were out of stock. (If considering stock-outs of priority "A" items, in Feb. 2007, 99 out of 204 or 48.53%). Over 99% of the expiries mentioned above were "A" priority items. / July 2007: 128 out of 204 or 62.75%.) – For more details on drug availability and/or stock-outs see 3.3:

Availability of drugs and distribution system.
Often stock cards are not well kept; e.g. at CMS/RMS "Centre", some information is missing, whilst some of the entries were in pencil and without recipient, etc – i.e. good Storage Practices are not applied. For more on the application of Good Storage Practices and/or Good Pharmaceutical Practices: see 3.3.

Sources and Distribution
Drugs and medical supplies are received by the CMS through various means: a tender process by the MoH, donations, private purchase and through UNICEF (emergency order). All commodities that are population based are pushed to the RMSs: 20% to the North, 35% to the Center and 45% to the South.

Donations are supposed to be channeled through the CMS. However, most donations bypass the CMS and go directly to health facilities. Donation guidelines for Malawi have been developed (similar to the WHO guidelines) but have not yet been launched. Donations are often sent straight to health facilities without prior notice or investigation into which items are needed. Incoming donations are in general, entered to stock cards. But reporting on drug status at health facilities does not distinguish between CMS commodities, private purchase and donations (donations outside the donor programs).

The distribution to DHOs backs up on the CMS/RMS stock/s. Therefore, because of the above stock-out figures (example CMS/RMS "Centre"), a distribution and supply of satisfactory quantities is not to be expected. The visiting team could not trace one fully supplied request at the facilities. (see also 3.3)

Drugs and medical supplies are listed in the CMS Catalogue. In total, **there are nine (9) separate lists for drugs and medical supplies in the CMS Catalogue**: (i) the general CMS list, (ii) a list of controlled drugs, (iii) disease outbreak control items and (iv) 6 lists of items for separate donor programs. All **items for the different programs need separate requisition forms** in addition for each program item of a different class a separate requisition form is needed. For this, a lot of time is lost in administration for pharmacy staff.

Supplementary stock acquisition at periphery

At DHO level the necessary stock complements are purchased from private wholesalers. (Official rule: DHO has the right to buy using its own budget sources from the private market in case of CMS stock-out. However prior approval needs to be obtained from the CMS, which is not always adhered to),.The costs are said to be about 4-fold of CMS catalogue prices and in addition, entries and consumption of such orders are not always documented.

The drugs purchased from the private sector are sometimes of questionable quality and in the past patients have developed allergies. One of the drugs mentioned is *Gentamycin eye drops* from an Indian Company. Staff raised concerns about it as they had more trust in the quality of items purchased through the CMS and therefore regret the shortage of supplies through this channel.

In summary, the present drug supply is a mix of (see Annex PH 8a) (i) an incomplete, CMS tender based central drug supply and distribution system (best case: 50% coverage of need), (ii) an additional purchase from private market (according to sources: up to 4-fold of CMS prices) together with (iii) an irrational size of 2 months buffer stocks at peripheral level but with a monthly re-supply, (iv) an annual tender which needs more than 12 months for execution and (v) an assumed 6 month buffer stock at regional level (best case) **results in unnecessary drug budget needs of up to +150%** compared to a well organised unique system based on framework tender arrangements (see Annex PH 8b).

Forecasting and validity of the forecasting methodology

The national level forecasting is based on the procedure described below in brief.

No evidence of systematic attempts at national level forecasting was identified prior to 2006 for essential drugs. Forecasts are now achieved primarily by utilizing consumption data (in a similar manner to the methodology deployed to compute family planning requirements) in consultation with a large group of stakeholders, twice yearly. Morbidity data, which might serve to validate the forecasting exercise, is not considered as part of this exercise. Approximately 120 items from the about 400 item catalogue are currently the subject of the stakeholder forecasting exercise. The provenance of the remainder of items required for national level forecast is unclear.

The two primary items of forecasting data are firstly, the stock-on-hand and secondly, the consumption data over the prescribed/relevant period. The validity of the latter data is known, from first-hand field evidence, to be inconsistent and problematic. In addition, some evidence was found in the field of parallel recording of non-CMS items, such as donations, which might impact upon the integrity of consumption data. Also, documentation at CMS/RMS or DHO level (stock cards) does not take into account the additional consumption from private sector supplies at district level. The consumption of organizations such as CHAM was seemingly not considered, although they avail themselves of CMS-sourced supplies on a commercial basis.
In consequence, **the data (documented drug consumption and stock-on-hand) used for forecasting is inconsistent and problematic**.

Finally, it was observed that there is considerable forecasting expertise in the vertical programs. International best practice might be “tapped” to inform the national level essential drugs exercise. Programs such TB, Malaria, HIV/AIDS may be a fruitful local source of forecasting expertise for the essential drugs program. Nevertheless, in the HIV/AIDS programme, the provision of HIV-test kits is highly problematic and often results in stock-outs.

Whilst significant improvements have been witnessed in the essential drugs forecasting exercise during 2007, a “second wave” evaluation of methodology, data integrity, incorporation of best practice and also to address future data provisions may now be considered beneficial. In summary, at present the resulting **figures (= quantities awarded after tendering) are very**

likely to be insufficient; even after correction due to national health statistics (epidemiologic figures).

Reviewing progress in forecasting, supply & distribution
Recent developments in the Malawi supply chain include:

(A) Most likely positive impact:

- The implementation of a six monthly forecasting program for essential drugs in 2007.
- A long-term initiative proposal (2009 – 2011) to integrate HIV/AIDS drugs into mainstream distribution network via the (GFATM) Rolling Continuation Channel, which is currently under preparation.
- The initiation of direct deliveries to facilities from the regional medical stores
- The successful introduction of community-level monitoring of drug deliveries.

(B) Temporary or still unclear impact:

- The outsourced third party management team contracted (Glocom) to MoH at CMS, with poorly framed contract. The lack of counterpart staff and the outsourcing decision could be less significant, or less sustainable, than was anticipated at the outset.
- The segregation and removal of slow-moving items from regional medical stores to satellite storage areas
- The implementation of a new LMIS and the Supply Chain Manager system in all districts, for deployment as the decision-support system for quantifications.
- The nationwide logistics training and training of trainers
- The emergency private sector drugs and supplies sourcing procedures for facility-level successfully implemented

(C) Fundamental supply chain issues and weaknesses:

- There is considerable confusion arising from the delays in placing both routine and emergency orders during 2006. This is reflected in the current drug shortages. Tracking the supply chain pipeline and allocating responsibilities for resolution has proved problematic. Furthermore, delays in order placing in 2007 will in turn be reflected in shortages during 2008.
- The supply chain cycles at national level are mainly piecemeal and unsystematic at present.
- The regional stores at all three levels are physically full to the point of overflowing and all have incremental offsite satellite storage sites.
- There is a mismatch between demand and supply; all receipts are distributed to the regional level according to fixed proportions regardless of source of projected demand. A stock-out at the regional stores, for example, will not necessarily lead to any nationwide redistribution activities.
- Initiatives have been taken to address specific issues, such as drug leakage. Oversight of progress in implementing recommendations arising – and indeed other detailed logistics matters – has been problematic in the absence of regular Technical Working Group meetings, or indeed any other forum.
- The apparent difficulty in securing definitive data relating to the status of the prevailing essential drugs pipeline and the status of orders is exacerbated by the lack of the appropriate forum to review and resolve these supply-related issues with all relevant stakeholders.
- The methodology for identifying consumption data (one of the three key data items) at the facility level which is required to support the reordering decision-making is uncertain and different between sites. As a result, the accuracy of this data is questionable and stock adjustments are rarely recorded.
- There are no mainstream and universally-accepted drug availability indicators, though partners have frequently implemented their own such systems.

As regards the forecasting of essential drugs requirements, from being a relatively uncertain task following inconsistent methodologies there now exists the basis for a systematic methodo-

logical approach and cyclical timing (every 6 months) for this activity for at least a two year period. Early in 2006, USAID/Deliver initiated a consultative exercise and training involving local stakeholders and produced nationwide projections. However these projections were then not utilized for two subsequent rounds of procurements (one an emergency allocation) that same year. In 2007, there have been similar rounds of forecasting conducted in February and August, which have since informed the ongoing tender exercise but which have apparently not yet been executed.

Outstanding issues include the problem of measuring the forecasting performance, due to delays in subsequent procurement, receipt and distribution of the drugs and supplies in question. Relating the level of supply back to level of the demand is extremely difficult. In addition, the forecasting methodology is tied in with consumption data only where epidemiological data could also be used to validate these results. Another outstanding issue in this area is the absence of a regular – cycle of events e.g. annual. Hopefully, the most recent round of procurement will herald a more systematic approach to the supply chain functions.

Finally, there remains a considerable body of forecasting expertise in individual programs, such as HIV/AIDS, malaria and TB, which remains untapped for the mainstream essential drugs and supplies.

3.2 Integration of supply systems: CMS – additional vertical programmes

Integration at central level

Reviewing the integration of the supply chain showed that there has been documented progress made upon the financial integration of the SWAp. However, in terms of the supply chain technically and operationally, there have been less obvious levels of integration. The vertical programs, such as *family planning*, *TB* and most recently the *President's Malaria Initiative*, whether or not they administer their systems of supply through the CMS network, have not fully devolved responsibility for the forecasting and/or the procurement elements of their programs. Incremental support may still be provided to CMS to ensure availability which could create subsystems within CMS. These subsystems might maintain performance standards but they are not truly integrated systems. In the future the benefits of resourcing and "best practice" for such vertical activities should always be incorporated for the benefit of the mainstream supply chain.

The *HIV/AIDS program* has proved an exception and although currently highly vertical is developing an integration plan to harmonize all functions, procurement excepted, into the CMS network.

Integration at regional and at peripheral level

At the facility level, where such upper-level integration issues are not visible, or of direct concern, the problem is primarily unfulfilled lines in the reorders submitted to the regional medical stores. Stock-outs occasion considerable time and effort in order to correct. Rectification might occur via a number of mechanisms including; private sector sourcing, NGO-sourcing, borrowing/redistributing or subsequent reordering from the regional medical stores. These activities however are all considered burdensome and unwelcome. In addition, there are known quality issues and risks associated with alternative sources of supply to the CMS.

Other programs, such as HIV/AIDS, currently remain predominantly vertical (although, as indicated, this should change into the future). With discrete sources of supply, distribution and reporting and different methodologies ("push" rather than "pull" from the national level), supply chain activities continue in isolation. At facility level, this is not seen as an issue, as the lack of attendant administrative workload and decision-making associated with reordering, in conjunction with the full availability of supply, is viewed positively.

3.3 Drug availability at health care levels

Pharmaceutical staff

Surprisingly, the pharmaceutical professional staff are not listed / mentioned in any of the documents referring to the SWAP. They are only mentioned as part of Technical Staff. This shows an attitude to include pharmaceutical staff & activities under medical care aspects (i.e. nurses in HC pharmacies) which contributes to the inconsistent drug documentation and ordering which leads to system-born stock-outs.

There are very few professional pharmaceutical staff in Malawi..At present, there are only 14 Malawian pharmacists in the country whereby 5 serve the public sector (1 MoH, 1 CMS, 1 Central Hospital Blantyre, 2 Pharmacy Medicines and Poisons Board). This shows there is **only one Malawian pharmacist in hospital practice**. In total, there are 50 pharmacists in the public and private sector, of which 36 are non-Malawian pharmacists, mainly from Zimbabwe. There are about 300 Malawian pharmacy technicians, 69 are in the public sector, of which 12 presently attend further training. Pharmacy technicians head the RMSs, work in hospitals and DHO pharmacies. Pharmacies at HC level are run by nursing staff. They receive 4 days basic training in commodity and logistics management by the MoH or donor agencies.

Staff turnover at all levels of health care is very high therefore there remains a substantial need for training of staff (formal and on the job training). Data collection has been affected as institutional memory is lost therefore documentation is incomplete, or contradictory: i.e. different stock status reports have been received for/from the same health facility for the same month (RMSs and DHO).

Since 2006, Malawi offers a degree in Pharmacy at the School of Medicine. There are 8 students in their second year and 20 in their first year. It is hoped that every year, 20 more pharmacy students will enroll. This would help to reduce the severe staff shortage over time.
About ten years ago, the certificate training of pharmacist assistants was stopped and replaced by the diploma training of pharmacy technicians. Except for four, all pharmacist assistants have been upgraded to pharmacy technicians. It would be worth thinking about a revival of this basic education resulting in a 3-level education system covering the country's different needs for pharmaceutical professional staff competence.

Knowledge, attitude and practice

Staff have been trained on basic logistics and drug management issues. However, **application of Good Pharmacy Practices to daily work is not successful.** (Annex PH4; facility survey) i.e. staff know about storing items according to the FEFO rule, but it is not always practiced. Some of the reasons given are i) lack of storage space, and ii) assisting staff *who made a mistake*. It was observed at different pre-packing sites, that pre-packers count tablets by hand into the pre-pack bags. At one site, it was observed that tablets were not counted into the tablet bag, rather a handful of tablets had been grabbed out of a bigger container and put uncounted into the pre-pack bag to be dispensed to patients. Drug accountability in this regard remains poor. At HC sites, it was observed that tablet bags were not available. Tablets were wrapped in used outdated paper. There was no proper labeling - just an abbreviation for the nurse to know which drug is wrapped in the paper. There was no further written instruction to the patient on the 'containers' with regards to drug intake, which will often lead to the wrong intake of drugs, increasing in drug resistance which would require more expensive drugs, leading to a public health issue.

Several donors i.e. Deliver and MSH have conducted training on logistics and commodity management. They developed and distributed their own manual on pharmaceutical management training. The manuals are similar and it is not clear why 2 different manuals have been developed. Both manuals have been received by nurses from HCs working in HC pharmacies. It was observed that staff using reporting tools interpret the data differently, i.e. the

stock cards and the Supply Chain Manager. At DHO, it has been observed that pharmacies calculate the stocks required for HCs differently. Some follow the computer program in calculating stocks whilst others amend the figures according to their own 'feelings' / interpretation on drug needs for a specific HC. HC staff have also expressed dissatisfaction about amending quantities required. The tendency to amend figures is in contradiction to the indication on how to calculate quantities required (footnote on the page). Thus, this contributes to inconsistent, often unclear rules and this contributes to more confusion within the system.

Supportive supervision of staff is in place from DHOs to HCs. Donors have developed their ***own supervision/check list*** and have trained staff on these tools. Several different supervision check lists are available from the MoH and donor organizations. *The Integrated Supervision Checklist* from the MoH, with regard to drug management, lists only 5 points, in contrast with Deliver and MSH who have more detailed lists. However, certain pre-formulated answers do not allow for correct/satisfying reply.

Different training seminars / manuals and supervision checklists result in inconsistent habits, attitudes and practices and not improved and standardized pharmaceutical practices.

Storage facilities and Good Storage Practices
Storage facilities are in general far too small, in particular, the CMS, the RMS (N) and RMS (C). The same applies to most DHO pharmacies, hospital pharmacies and HC pharmacies that were visited. Because of lack of storage space, the same item is often found at different places in the storage area. In many facilities, boxes are stored on the ground as shelving is insufficient or not available. In some places, boxes containing different items are piled up with economize on space (often with the "Store Upright" instruction on the box not respected). Temperature control is hardly given. Store rooms, including CMS and RMSs are generally too warm, with no visible thermometer to control room temperature. In most of the health facilities visited, there is no air-conditioning and if it is available, it is out of order. Thermometers found in most refrigerators showed temperatures of zero to one degree which is too cold pose a risk of freezing, therefore increasing the chance of expiry of the item. None of the temperatures of the refrigerators were monitored by temperature control charts. In one case, an open box with about 100 insulin vials were waiting for dispatch but the ice packs were no longer cold and the insulin was at about body temperature.

In summary: **drug quality is not assured in many stores. *Non-visible expiry by temperature before the end of shelf life* as well as *expiry on the shelf* can not be excluded.**

Stock management
Most commodities are stored according to the CMS Catalogue classifications. Storing according to the FEFO rule is not always adhered to. Because of lack of storage capacity and the amount of donations coming in, good storage practices are not always possible. Some visited places have no real system of storing their items. **Stock cards should be designed to support Good Storage Practices**.

Stock cards are kept next to the items, except at CMS and RMSs. At the majority of health facilities, stock cards are kept in accordance with good standard procedures. There are different stock cards in place - the design of the latest introduced stock card (LMIS-C) does not give not enough space to fill in the required information as the columns and rows are small.. There is no provision for the *unit* of the item, therefore health facilities apply different rules. Some use the unit of the container, which creates a problem when the unit of the container changes. Others write the number of "single tablets". In these cases, the spaces on the stock cards are too small for such big numbers. The LMIS-C stock card does not have a column for the expiry date of items. Since the FEFO rule is not always applied, expiry of drugs can not always be detected in time. Documenting the expiry date on the stock card would help to alert the person dealing with

the stock. In addition, LMIS-C stock cards do not provide a column for a signature of the person performing the transaction. **There was not a single stock card examined where a transaction was signed for.** The stock card caters for 'remarks', which is often used to indicate if the item is a donation, where it was issued or from where it was received. Staff complained about these most recent stock cards, because of the above issues and some even requested to go back to the old stock cards.

At one health facility, there was an excessive amount of the drug Acetazolamide found. Despite having received the drug four times in May 2007 from one single supplier, not a single tablet from the stock of in total 30 x 100 tablets had been moved. The drug has a shelf life until December 2009, meaning expiry is very likely. This item was procured from the private sector and was not recorded on the Supply Chain Manager's printout, even though staff had indicated that drugs procured from the private sector are recorded. Another example at the same health facility was with *Metronidazole 200 mg* tablets, which had been privately purchased but not documented on any monthly stock status since receipt. The practice of not recording privately purchased drugs has been observed at several health facilities and indicates way in which consumption data is lost.

There is no location or institution where patient records are kept by the relevant medical staff which could be compared with drug distribution records kept by the relevant pharmaceutical actor/s. This may allow for a double check on drug distribution quantities and serve as a check for the application of "rational use of drugs"; a procedure which was introduced by WHO about 25 years ago. Drugs prescribed are recorded at OPD, but whether the patient actually receives the drug (remind: stock outs!) is not captured.

Availability of drugs and distribution system

Reports on drug availability have been reviewed at selected health facilities at all levels of health care: RMSs, Hospitals, DHO Pharmacies and HCs. A huge amount of drugs have been found at nearly all visited health facilities. As stated above, these drugs are mainly purchased from the private market and do not reflect the availability from CMS/RMSs.

Central Hospitals pull their needs directly from the RMSs, whereas DHOs, compile the orders for their district hospitals, HCs and their DHO pharmacies and then send these orders to the RMSs. Items ordered are then directly send from the RMS to each health facility.

At present, DHOs send their request to RMSs on a monthly basis. By application of the Supply Chain Manager Software – a buffer stock of 2 months is catered for based on the consumption of the previous month. This (best case) increases the national stock volume by (unnecessary) 50% or (worst case) contributes to stock-outs at RMS level.

At all health facilities, it was difficult to obtain an updated *availability stock status*, as this data were not readily available. In several cases, it was said that a copy of last month's stock status had been given to the director or administrator and no copy had been kept. Others had severe problems retrieving this data from the computer, as computers were not working well or run very slowly. Computer knowledge is generally poor and as such data retrieval using the electronic and manual filing system is difficult. Many of the computers have viruses which could be another reason for their erratic function.

RMSs give monthly comprehensive reports to the CMS on: *opening balance, quantity received, quantity issued, losses/adjustments, closing balance, months of supply and expiry date*. Central Hospitals report to CMS monthly on their stock balances. Within the hospital, they circulate a weekly update on stock status for all items ticking the column for "in stock", "few stock" and "out of stock". This is a welcomed development to prescribing hospital staff and managers. DHO Pharmacies use the Supply Chain Manager and report on "Balance on Hand" and "Quantity Used" and calculate the needs for the HCs. From HC level, "Balance on Hand", "Adjustments" and "Quantity Used" are reported to DHO Pharmacies. No health facility was able to provide

data from one to three years ago. Therefore no comparison of 2007 data with previous years was possible.

Stock status reports have been collected at different health institutions and were entered into an Excel Sheet for comparison (see Annex PH5: drug availability a + b).

Drug availability figures show the following:

- All three RMSs show a drug availability of around 34% (stock out = 66%)
- Only about 53 % of all A-items are out of stock if referring to **all** RMSs at the same time.
- Three Central Hospitals show drug availability of 45 – 60 %
- The DHO Pharmacy visited has a drug availability of 33 %
- HCs show a drug availability of 7.5 – 41 %

The following **13 items are out of stock at all RMSs**, **but** listed for all health facility levels, and they are **of great concern to fulfill the EHP**: Vitamin A capsules, Adrenaline injection, Benzylpenicillin injection, Diazepam injection, Ergometrine+Oxytocin injection, Gentamycin injection, Lignocaine injection, Tetanus antitoxin, Amoxycillin suspension, Cotrimoxazole syrup, Erythromycin oral suspension, Metronidazole oral suspension and Oral rehydration salt sachets.

On the other hand, Annex PH5 shows, that **HCs keep drugs which they are not supposed to keep** according to CMS catalogue i.e.: *tablets/capsules*: Diazepam, Indomethacin, Phenobarbitone, Propranolol, Pyridoxine, Quinine, Vitamin B complex, *Injections*: Benzylpenicillin and Chlorpromazine.

The prevailing trend of drug availability is visible: the drug availability at Central Hospitals is higher than at RMSs. This results from private market purchases (at remarkable higher prices) from local wholesalers which sometimes also supply CMS (but sometimes do not fulfill their lot-contract in time). The question of "to who's benefit?" remains.
The low drug availability figures at the DHO Pharmacy and HCs remain questionable since several drugs could be seen within the health facility, but were not reflected in the stock status report. (see also 3.3. and 3.4.)

3.4 Validity of quantification data and methods applied in forecasting

A logistics infrastructure to report on drug status/availability is in place. The relevant reporting tools at Central Hospital and District Level have been developed by donors. The calculation of order quantities at DHO pharmacies for drugs and medical supplies is uncertain as it is not uniform. **Some DHO pharmacies adjust these *quantities required* to their own knowledge/ perception of what they think might actually be needed** by respective HCs.

As mentioned before (see 3.3.), obtaining stock status information was difficult. Stock statuses are erratic as they do not always cater for donations or items procured from the private sector. The consumption data of CHAM is not taken into consideration, even though they buy commodities at the RMSs. CHAM presently has a huge backlog of unpaid bills from MoH facilities and is at present, not able to stock up their own CHAM drug store until payments are made. This situation will lead to higher consumption of MoH items which have not been planned / catered for.

However, RMSs, DHOs, DHs and HCs do not quantify data for quantification at national level; they provide stock status data (stock on hand and stock consumption) and channel these to the CMS. Quantification of drugs and medical supplies is only performed at Central Level.

At Central Level quantification of drugs and clinical supplies is based on these erratic consumption data received from lower level. Quantification is performed by different people at different times for different Programs, thus there is no unique quantification for Malawi as too many players run their own Programs, including own quantification. Quantification before 2007

has been very unsystematic and confusing. In February and August 2007, more precise forecasting and quantification took place for CMS procurement. At present, the quantification exercises have not yet revealed a procurement process. **A nation wide physical stock count is envisaged for December 2007 at all health facilities**. Thereafter in January 2008, an even more scientific forecasting and quantification is planned. To increase better forecasting and quantification, the list of drugs will be extended. **However, the exercise is still based on erratic consumption data.**

Changes in policies i.e. the change in malaria treatment guidelines envisaged over the next couple of months will have an impact on former quantification. New drugs are needed, but old stock and orders will still have an after-effect. Therefore quantification of 'old policy' items, i.e. sulfadoxine / pyrimethamine has been distorted.

3.5 IT tools used in supply chain management

The Supply chain related systems currently installed in Malawi are listed in Annex PH 6 (*Rapid assessment*)

Review of the Supply Chain Manager
The USAID/Deliver Supply Chain Manager system, now in situ in all districts, has strengthened the ability to apply a consistent reordering methodology nationwide for essential drugs and supplies. The routine submission of stock-on-hand and consumption data would seem to have been effectively introduced and the districts can now aggregate and submit orders on behalf of all their facilities.

The major issues that now constrain more effective deployment are as follows :

- **Inability to identify an audit trail regarding quantification decisions;**
- **Uncertainty and inconsistency on the methodology for computing the consumption data inputs;**
- **Inflexible product base data in order to address variants (eg pack size) of the same product.**

These and other issues are addressed in more detail in the proposed systems developments in Annex PH7 below.

3.6 Implementation of the CMS improvement plan

The "CMS Improvement Plan", in conjunction with various other relevant documents (for example, the Strategy Plan, the Inception Report, the Glocom contract, the SWAp milestones and the Business Plan) collectively help to identify a road map for CMS performance improvements. The Glocoms Inception Report, approved by the Drug and Medical Supplies TWG is now the guiding document for CMS/Glocom activities. Unfortunately, the tracking mechanisms which might identify progress, as identified in the Inception Report and Strategic Business Plan, has been lost insofar as the Drug and Medical Supplies Technical Working Group does not convene regularly to discuss progress reports provided by Glocom and in any event, would not appear to have a formal mandate to exercise performance oversight in this area.
In summary, Glocom are working to an approved business plan that was part of the inception plan report. However, there is little oversight from the advisory group that was originally involved in discussing and agreeing the details of the Inception Report and Business Plan.

3.7 Assessment of access to pharmaceuticals, supplies and sundries recommended for usage at different levels by the proposed set of essential health care package

Out of the 207 CMS catalogue items which are A classified drugs of the A, B, C, E groups, 61 items (= 29,5%) are needed for the delivery of the EHPs. (Annex 9a) From these 61 items only 8 (13,1%) have been available at all health facilities at all levels of health care; 3 items (4,9%) have been out of stock at all health facilities at all levels of health care (Benzylpenicillin injection, Lidocaine 1% injection and Tetanus antitoxin). About 57 % of drugs are available at all levels of health care but not in each health facility of the respective level of health care.

In Section 3.3, it is outlined in detail that 13 basic drugs for usage at all levels of health care are not accessible at present, since none of the RMSs have any stock of these drugs. This is very worrying considering in that in some areas of Malawi, people are not able to receive basic care. Reasons for non-availability are multifold (i.e. erratic data sources which result in low figures in forecasting and quantification) and have been discussed above extensively.

Comparing the drug availability at different levels of health care with the drug needs to satisfy the needs for the EHPs it is visible (Annex PH 9b) that the majority of drugs are not or not everywhere available. Data also show that at hospital level more drugs are available for the EHP than at regional or health centre level.

4.0 ANALYSIS AND DISCUSSION

4.1 Drug quality assurance

The per-condition(s) applied during tendering, i.e. that, as a rule, GMP compliance is required with one of the following four schemes – WHO pre-qualification; US/ FDA; European/ PIC-S; Japanese – if a medicament is not registered in Malawi has shown its effectiveness – as it is has been proven by the negative example *Gentamycin eye drops* (from local private market).

However, the **application of *Good Storage Practices* and *Good Pharmacy Practices* to daily work is not successful.** (Annex PH4; facility survey); e.g.:

- Drug quality is not assured in many stores and non-visible **expiry before the end of shelf life due to temperature can not be excluded** (as well as "simple expiry" on the shelf).
- There is a need for a "second count" of drugs used to arrive at sound consumption data. For this purpose,.patient records *(patient data, diagnosis, therapeutic decision = drugs prescribed)* should be kept in the SWAp medical wing which can be compared with drug distribution records *(patient name, prescribers name, name and quantity of drugs dispensed)* of the SWAp pharmaceutical wing. This allows for a double check on drug distribution quantities and can also serve as a **check on application of "rational use of drugs"** as it is done successfully in some provinces of the Eastern part of DR Congo.

4.2 Data collection, forecasting, distribution and supply of drugs inclusive of validity of quantification data and methods applied in forecasting

Forecasting and timing

As explained above, the data collection is questionable and, thus, the forecasting does not help much. Consumption data has to include the consumption resulting from (i) the DOH's direct purchase from private market and (ii) "non-fulfilled" demand.

- There can be no doubt that the **data collection has to be done in a sound and consistent way throughout the whole medicaments supply system**, i.e. CMS/RMS level and DOH plus periphery. **First measures might be (a) appointment of**

pharmaceutical responsible staff at all facilities and levels, (b) special best practices focussed training courses and (c) an alignment of IT systems applied and/or provided with donor assistance.

Taking into consideration the fact that the 2004 tender needed a one year's time for "administrative" execution (not forgetting that several final deliveries were in July 2007 only, and still some important items are not yet delivered in full) the strategic **timing of the tender is far away from being supportive to a functioning health care delivery system**.

- The time frame applied for tendering has to start in January at the latest (instead of August). The agreed extension of the tender period of the next (2007/08) tender intending to cover a two years frame (2008/09) will help only a little to reduce the "inconsistencies".
- **It is a must to start from sound consumption data** (cf. above). In addition, the calculation has to take into consideration (e.g.) the constant growth of the population of about 2.3% and the well evaluated and documented fact that patient attendance rates increase by 30% per year (or more) if the health care delivery system relies upon a drug supply system which assures permanent availability of all drugs necessary for rational treatment, i.e. in particular the drugs defined for/by the Essential Health Packages.
- To reduce the lead time and to minimize the risk of "surprise" stock outs, deliveries of lots of major items should be fractional consignments scheduled in advance (e.g. every 4 months) and adjusted to last period's consumption data.
- Suppliers not fulfilling their tender-lot delivery obligations should be excluded from private market purchase actions run by the DHOs using their own budget.

Distribution, supply and price per item

The fact that the majority of the tenders go to Malawian suppliers results in an interesting vicious cycle: If *Supplier A* does not deliver, CMS/RMSs run out of stock – consequently followed by the automatic right of the DHO to buy from the private market at quite higher prices which may end up in the hands of the *Supplier A*.

In addition, at least some of the Malawian suppliers are brokers which will add their own share on top of the *ex works* price of their source manufacturers. This broker's profit represents an unnecessary loss to the supply system, because a wholesaler (CMS/RMS) buys from a wholesaler instead from the original source. This also adds to the risk of early expiry on the shelf, as the lead time is extended by the time in the suppliers hands.

- Therefore, the selection of suppliers may need revision, and if a good number of Malawian suppliers are also awarded orders using the "buy private rule", the whole system has to be re-examined. The rule sounds nice but opens private pocket options.

Validity of data

Many efforts have been made during 2007 to improve national drug quantification. The move during 2007 to work on priority drugs and to validate the quantification exercise in February and in August/September, is a step to reduce future national shortage of drugs and medical supplies. The envisaged national stock take at the end of the year and a new quantification exercise in early 2008 will further improve the present availability of commodities. The use of spreadsheets or data base software will have major advantages such as speed, accuracy and flexibility. Budget allocations should be known to match estimated quantities and costs. However, given that reporting of stock status and consumption data is not standardized, data used for the national quantification exercise are erratic, and in general are too low as not all commodities are captured (i.e. donations and private purchase).

As long as the present situation has not improved and not all procured items are channeled through the CMS, data will remain erratic and too low. Under given circumstances, projections need to be cross checked with calculations based on morbidity and demographic data. But even then, reliable figures are not sure to be expected.

- *Basic commodity management* as well as *Good Storage Practices* and *Good Pharmacy Practices* are basic requirements for valid forecasting and quantification. Present manual

and electronic filing need to improve in order to find/supply the right and comprehensive data when needed.

- An improved forecasting exercise will reveal an improved quantification. However, consumption data received from primary, secondary and tertiary health facility level are inconsistent and erratic, therefore, the quantification may improve through a more scientific forecasting -this will not overcome the estimation of low figures. Therefore **it is critical that all items are channeled through one entity** - the CMS. This will ease the calculation of reasonable consumption data. There is a need within the SWAp to **integrate all drugs and medical supply programs from donor organizations (pooled donations) into one single forecasting, quantification, procurement and distribution channel**. A multi player system will continue to create confusion and give a non-transparent picture and, at the end, the mixed responsibility results in substantially higher budgetary needs (see Annex PH8a). Expertise found in different program areas should be used to stream line the supply chain from beginning to end.
- Capacity building is urgently needed to overcome the present situation. More storage room and more trained staff / professionals will improve good pharmacy practices and on the whole, improve the data base.
- **Patient records have to be introduced at all levels of health care for each facility in order to double-check drug consumption and to arrive at correct drug flow data and finally at a demand driven drug supply system**,
- Anti-virus programs are needed for computers otherwise the loss of data and corrupted files will always negatively influence the possibility of getting a comprehensive valid data set for forecasting and quantification.

4.3 Supply chain management (CMS, RMS, DOH and other systems)

The “bottom line” of the current CMS network, is that all investment aside, it has failed to ensure the continuous provision of drugs and medical supplies at the points of service delivery. Studies, consultations and anecdotal evidence have served to confirm this.

Particularly noteworthy in the above and related research is the inherently unsystematic nature of the cycles governing supply chain activities. Where traditionally, the one year budgeting cycles of the recipient government might usually produce “drop dead” deadlines for resourcing decisions (if only to ensure the passage of national budgetary legislation), with so much of the procurement addressed by donations, there is seemingly no similar dependencies which might serve to “guillotine’ discussions. Thus, for example, the forecasting exercise of February 2007 (which was then effectively superceded by a second, more recent exercise in August 2007) is effectively no longer directly linked to the procurement decisions due to be made in early September (and which will probably not see the arrival of drugs and supplies in-country until mid-2008). The tracking – and indeed relevance – of forecasting accuracy is thereby greatly negated.

Also, since the decentralized budgeting yields district-level line items for drugs and supplies, it would seem a reasonable premise that there should be some linkage with the forecasting exercise, but the origin of the district-level budget line item for these items is uncertain and there is no forecasting breakdown beyond the national level. Furthermore, there is a fundamental discrepancy between demand and supply under the prevailing supply chain. Regardless of any forecasts, supplies are pushed out from the center on 45:35:20 ratios to the regions, after which issues of regional supply are addressed independently, again, regardless of forecasted requirements.

In the present system the performance of the third party CMS (Glocom) team is key to the development of supply systems and capacity. However, there is no obvious input mechanism when new requirements for the supply chain, such as drug leakage recommendations or the PMI, are introduced to the (contractual) relationship.

- As regards the integration of supply chain systems, since it is unlikely there will be a speedy resolution, it is up to all parties in the SWAp, the MOH management and development partners, to ensure that vertical programs leverage their resources and intellectual capital to the benefit of the mainstream supply chain.

With resources so limited, attention to one program can only be achieved at the expense of attention to the mainstream supply chain. One specific example of where such collective improvements might be "piggy-backed" is in the utilization of indicators, where an under-resourced department (HMIS) would benefit greatly from collaborating with programs which have complementary data collection and reporting goals. Other functional areas, including forecasting, would derive similar benefit.

Finally, with systems, although much positive progress has been made, developments in this functional area are a result of no overall agreed strategy, or indeed, a ready and formal source of Ministry decision-making. This key supply chain function needs to be directed and managed appropriately.

4.4 Drug availability at health care levels

Central level

Drug availability from CMS/RMSs has deteriorated over the past 3 years. Since districts have their own budget and are able to procure with approval from the CMS, their own item availability at district level is not as low as if the CMS would be the sole provider for drugs. Since not all donations are channeled through the CMS and reporting about donated drugs is erratic, it is not clear how much donations that bypass the central system improve drug availability. On the other hand with such erratic information about drug consumption, forecasting and quantification of commodities remain too low and stock outs are still persisting as long as reporting is not improved towards the Central level.

Periphery

In general, there are good stocks of drugs and clinical supplies at all health facilities, more than the CMS caters for, and these items serve the EHP and the community at large. However, the documentation of these items is not separated, therefore *stock on hand* and *consumption* data do not reflect which commodities are from the CMS and which are from other sources. The *stock outs* reported at health facilities, do not reflect the real short falls in the public sector as some items which are out of stock at CMS/RMSs, are purchased from other sources and therefore available, but not available from the CMS. Items procured in smaller amounts by many DHOs result in higher prices which leads to a higher expenditure on drugs and medical supplies countrywide than would been when only one procurement channel (through CMS) would have been adhered to. With regard to the SWAp indicator *% of health facilities without any drug stock outs of selected drugs for a determined time period,* this indicator will not reflect the real picture as there might be no *stock outs* reported as drugs are procured from the private sector, but in reality the drug is not available from CMS/RMSs. The SWAp indicator on drug availability refers to very few drugs and is therefore not an indicator as such for general drug availability. As soon as the Malaria policy changes, the drug SP (Fansidar) will no longer be an indicator drug. The indicator for drug availability is the POW *% of health facilities without any stock outs* of three drugs *for more than a week at a time*. In the mean time, the indicator has been modified to *drug days availability* prior to the mid-year review, therefore a comparison with other years measurement is not possible.

The separate lists for drugs and medical supplies from donors in the CMS Catalogue, in addition to the CMS list and their numerous drug request forms create parallel systems, erratic staff attitudes, scattered habits and a lot of confusion on the availability of drugs to staff. This is because one drug might be part of three different programs, e.g. the drugs ciprofloxacin 250 mg and doxycycline 100 mg are under three different codes in three different lists in the CMS

Catalogue. On the other hand, this situation causes a huge unnecessary administrative load which could be more fruitfully spent on improvement of pharmacy practices.

- **The integration of all donor program commodities into the CMS stock list would ease the work load and result in more transparent consumption data**.

Poor storage facilities contribute to poor commodity management. As long as the CMS is not expanded to a reasonable size (to keep incoming commodities for distribution on a "pull" system to the Regions), the present "push" system needs to stay in place.

- The population based "push" system from CMS to RMSs creates short falls as well as overstocking in all RMS. **Only a "pull" system would reduce wastage and improve availability**.

Poor storage facilities conditions at DHO Pharmacies, Hospital and HC level also contribute to poor commodity management and above-average expiry

- Improved store room capacity at health facilities would result in better stock management. The high temperatures in storage facilities and the extreme temperatures in refrigerators (either too hot or too cold) contribute to deterioration of drugs. The effectiveness of drugs might deteriorate with a possible result in the increase of drug consumption or increase in resistance to drugs, which would be a public health issue.

A lot of work has been done to develop logistic tools to assist the health care system to streamline data collection on drug availability and consumption. However, the different interpretations and use of these tools, countrywide, contribute to confusion of staff and do not result in realistic information about drug availability, drug consumption and drug needs. The lack of knowledge regarding systems administration procedures amongst users at the district level, limits their efficacy as a support tool. The current stock cards do not hold staff accountable for moving stock. This might lead to entries which in reality do not take place, as nobody can trace the owner of the stock movement entry. No recording of expiry dates might lead to late detection of expiring items. Redistribution to another health facility might be late and the item might be wasted as it expires.

- **Only improved logistic tools will improve commodity management and contribute to improved drug availability.**

It would be worth thinking about a ***revival of the pharmacist assistant training (certificate)*** *which was replaced about 10 years ago by a pharmacy technician training (diploma). This* ***would result in a 3-level education system nicely covering the country's different needs*** *of pharmaceutical professional staff competence.*

- Improved capacity and increased numbers of professional staff will improve commodity management and contribute to improved drug availability.

4.5 Impact of the implementation of the CMS improvement plan

The team could not find any proof that the existence of the CMS improvement plan resulted in an effective, positive impact in drug availability and/or improved the SWAp arrangement(s) made.

In addition**, the lack of meetings by the TWG jeopardises the success of the drugs and medical supplies activities incorporated in the SWAp**.

4.6 Contributions of the pharmaceutical activities to the implementation of the proposed set of essential health care package

Many training sessions on the use of logistic tools and improved commodity management have been conducted. Nevertheless **basic stock management and Good Pharmacy Practice remain generally poor and contribute to stock-outs and over-stocking at the same time**, resulting in the expiry of items. There is no standardized understanding of reporting. Contributing factors are: poor storage facilities, lack of human resources, high staff turn over, low motivation, and different approaches by different donors.

- There is need for more formal training, streamlined supportive pharmaceutical supervision and on-the-job training.

Poor stock management and low Pharmacy Practice also result in the worrying situation that none of the EHPs can be provided satisfactory as for none of the packages a reasonable supply of drugs is available at all levels of health care. The situation is even worse at regional level and health centre level. Central Hospitals seem to have some funds to purchase drugs from their own budget to provide some basic services of the EHPs. However the situation is worrying as basic care is so much compromised. Urgent action is needed to improve quantification and procurement of drugs.

The priority need is to have a separate SWAp wing which is purely pharmaceutical with single-donor responsibility. In addition, an approach that is able to unify the different interests and conceptions in the the drug supply system can be introduced, based on best practices and driven by expressed demand. This would avoid stock-outs as well as overstocking and be more cost effective.

5.0 Conclusions and recommendation

Forecasting and stock management
Many efforts have been made over the past years to improve drug and medical supplies availability through implementing logistic tools, improved supervision and improved quantification of commodities. However, the drug availability from CMS/RMSs has deteriorated.

The pre-conditions for acceptable drug availability are: basic infrastructure, standardized logistic tools and Good Pharmacy Practice. Without these, no valid forecasting and quantification can be achieved by any experienced professional.

At present, the basic infrastructure in terms of warehousing is not given. As long as there is no improved storage infrastructure, the “push” system from Central to Regional Level can not be changed to a “pull” system. Good storage practice at Central, Regional, District and Community Level is hampered, as long as storage rooms and shelving are insufficient and temperature regulators, such as air-conditioner and refrigerators are not in good working condition. ***Kamuzu Central Hospital Pharmacy Store in Lilongwe is a positive example on how good facility conditions can assist in good store management.*** This pharmacy store could be used as a model of good storage practices and drug management practices in other places.

Logistic tools are available but they need to be revised and standardized. The existing tools may be used in **developing national Standard Operating Procedures (SOPs)** which will be uniformly implemented at all health facilities.

Donations at times are more of a burden than of assistance since they disrupt the national supply system. Too many players (parallel systems) and their multifold forecasting, quantification and procurement of commodities has resulted in confusion and non-transparency of commodity availability. It is critical that this changes to a mainstream supply chain (pooling) within SWAp in order to improve forecasting and quantification to achieve best availability of commodities to satisfy the EHP. Private purchase by health facilities should only serve emergencies. Compiled data on commodity availability and consumption will be much easier to

capture and will serve as a valid database for forecasting and quantification. Other donations which are outside MoH Programs should also be channeled through one entity, the CMS. The newly developed donation guidelines for Malawi will soon be launched and assist with this.

Tender procedure

The time of the upcoming 2-years-tender should be used to replace the present tender procedure which actually leads to a consistently high percentage of stock-out and counteracts the goal of guaranteeing at least the permanent access to the EHPs by the general populace.
A framework contracts based tender procedure should be introduced which allows for pre-defined delivery dates (see Annex 8b) **paving the road to arrive at a country-wide no-stock-out situation while also saving up to 60% of current drug costs** (Annex 8a)**.**

There should be an urgent intervention to procure drugs which are needed to provide basic services through the EHP priority programmes. Funds should be made available for these urgent items i.e. through the WHO Essential Drug Programme or UNICEF.

Pharmaceutical professional staff

The curriculum for pharmacy students, pharmacy technician students and nurses should incorporate extended modules on the standardized use of logistic tools and pharmaceutical commodity management (SOPs). The revival of the pharmacist assistant training will reduce the shortages of professional staff and improve on good pharmacy practices. Regular standardized supportive supervision will improve staff performance and reduce the waste through bad pharmacy practices. Under present circumstances, in-service training should take place at a broader level, while pharmacists, pharmacy technicians and pharmacist assistants are trained. Over time, the in-service training can be reduced as new professionals become available to the system. Strict rules need to be applied to students who have been supported by the Government with bursaries/loans to serve the public sector after their training. **Performance based incentives/promotions should be used to keep professional staff motivated and keep them in the system**.

The SWAp conception does not list pharmaceutical professional staff with responsibility. Staff only listed as part of Technical Support Services blocks a successful approach towards an effective drug supply system. As a consequence, the present SWAp conception of the "pharmaceutical wing" does not hold room for implementation of a sustainable drug supply system which assures nation-wide permanent access of patients to quality drugs at reasonable costs.

The SWAp POW should establish a unique drugs and medicals supply system with pharmaceutical professional staff in all the facilities. (example: see Annex 8c).

The MoH and the involved donors have to re-design the whole pharmaceutical wing's activities.

The resulting professional drug supply system needs to meet the following conditions:

- Drug quality assurance procedures need to be written, disseminated, implemented, adopted and verified by regular professional supervision;
- Unique organizational scheme for pharmaceutical professional or semi-professional staff should be designed for all levels and disseminated; appropriate professional staff should be employed and trained.;
  Regular professional supervision should be assured.
- Human resources development programs should be written and implemented.
- Drug supply management and operations based on the principles of cost recovery, i.e. the Drug Revolving Fund idea and its related rules of private economy should be applied.

- TWG should meet regularly to support and monitor activities and streamline the drug supply chain from a central entity – CMS – down to HC-level with strict rules and regulations.

The SWAp should introduce a pharmaceutical wing composed of three major components (i) a framework contracts based purchase/tender procedure, (ii) pharmaceutical professional staffing at all health facilities, and (iii) a common drug management system everywhere (inclusive of the special programs like HIV/AIDS and TB). Only then will it be possible to meet the WHO recommended per capita costs for basic drug supplies.

Recommendations	***Who is responsible***	***Proposed Action***
Top Priority		
Negotiate and agree solution to the current crisis in ITN, vaccines and other essential drug supplies.	Government and development partners	These solutions should be administered as priority through two recommended intitiatives (which are futher detailed in draft Scopes of Work in the report Appendices). A) Conduct an immediate study to identify all items in the drugs and medical supplies pipeline that short-term rectification initiatives can be implemented to address the current and pressing issues of DMS availability (or lack thereof). B) A forum is created whereby the many and varied issues identified in the SWAp and related reports, might be agreed, indicative solutions identified and stakeholders mandated to develop and implement performance improvement programs. This activity to be conducted under the auspices of the Ministry of Health.
Capacity building		
➢ Improve storage infrastructure	MoH or / and development partners	Capital investment
➢ Staffing, training, formal and in-service	MoH / Director of Pharmaceuticals	➢ Implement pharmaceutical staff at all levels/ facilities & provide training ➢ Re-install pharmacist assistant training ➢ Assist in loans/ bursaries for students
Standardize documentation, reporting and supportive supervision	Director of Pharmaceuticals Director of Medical Services	➢ Develop, implement and enforce SOPs ➢ Install 2 independent documentation systems on drug consumption (patient records; stock records)
High level supply chain monitoring	MoH and partners	Re-install regular meetings of TWG Advisory role ➢ Follow up milestones ➢ Establish working groups for priority issues (e.g. to track commodity availability) as well as coordinate any/all new CMS supply chain interventions (eg PMI & drug leakage recommendations) that ongoing supply operations are not detrimentally affected ➢ Derive, agree and track drug availability indicators (w/HMIS) ➢ Document and communicate to all stakeholders prevailing supply chain

		pipeline, including orders(s) status, plus immediate and longer-term consequences of status quo as a prelude to further interventions and joint action plans ➢
*Allow for only **one** procurement and distribution channel for pharmaceuticals within the MoH*	MoH and partners CMS, Operations & Systems	➢ Empower the CMS as the only MoH entity to procure and distribute pharmaceuticals (e.g. define, document and agree respective supply chain responsibilities) ➢ Introduce tender procedure arriving at 2-years frame contracts ➢ Produce, document and agree a workplan which addresses appropriate systems development, partner integration, provision of TA & training and procedural oversight ➢ Identify & agree logistics sub-committee TOR's. Initiate such a forum and conduct periodic meetings ➢ Derive, agree and track Key Performance Indicators to support CMS operational decision-making ➢ Address short-term CMS planning/ decision-making with available resources ➢ Supply chain system strategy paper requires developing, documenting and agreeing
Lower Priority		
Systems	MoH & partners	➢ Identify & agree systems sub-committee TOR's. Initiate such a forum and conduct periodic meetings ➢ Employ data analysts at CMS / RMSs to analyze reported data and to improve forecasting and quantification to achieve better commodity availability (Revise and agree consumption data algorithm at facility level) ➢ Piecemeal Supply Chain Manager systems enhancements, as identified, require considering/actioning
Supply Chain	Partner Organization with MOH	➢ Identify all supply chain stakeholders including MOH & partners ➢ Conduct audit of current and proposed CMS forecast procedures and methodologies, plus those of vertical partner programs ➢ Contribute to the development of revised CMS commercial third party management agreement due in 2008
Improved indicator reporting	SWAp	➢ Expand drug range for indicator reporting to all EHP drugs
Human resources	MoH, HR Department, MoF	➢ Develop and implement a performance based incentive/promotion scheme ➢ Improve on the job training

Annex: PH 1 - Persons Consulted

Mr Abondo, C.	Team Leader (CMS Reforms)	CMS
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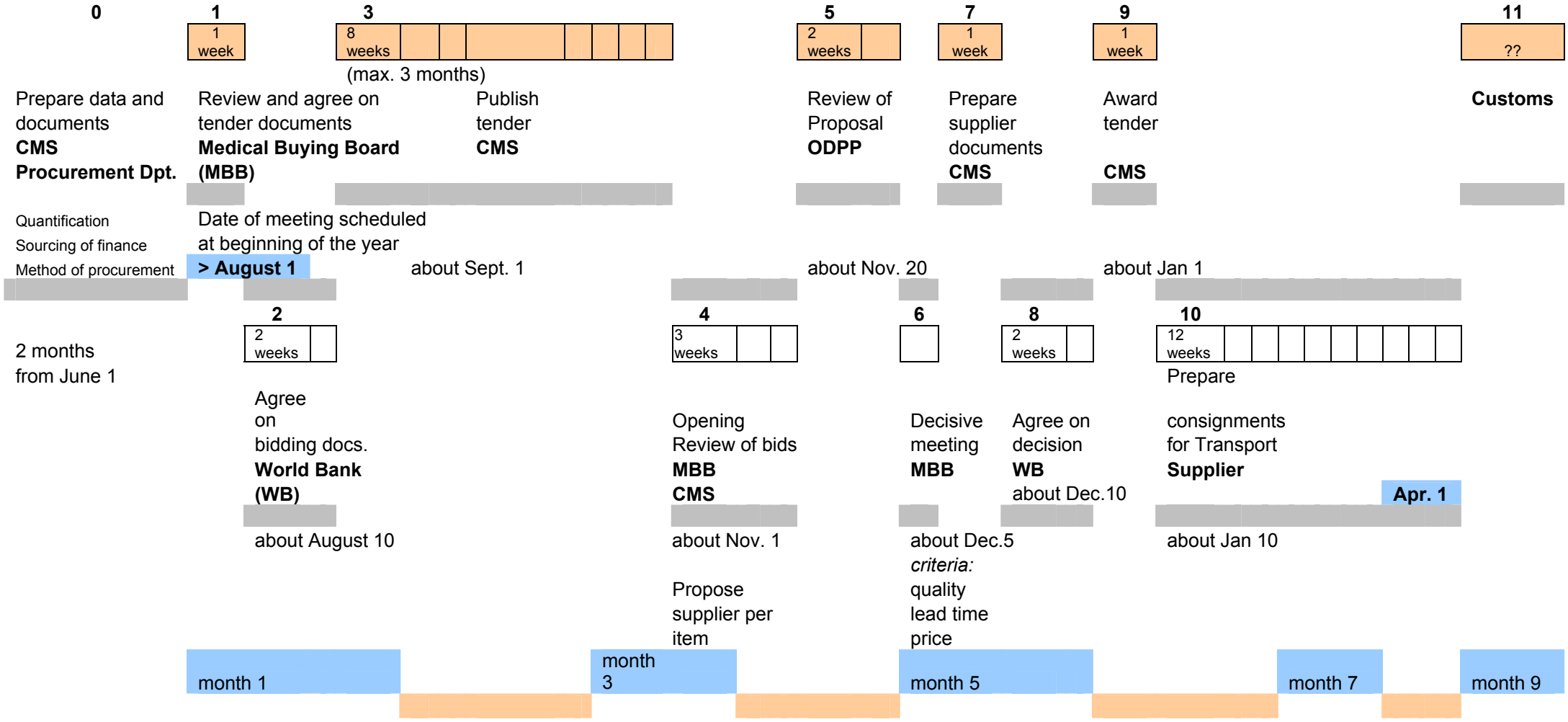
Mr von Massow, F.	Pharmacist Consultant	Swap Review Team
Ms Wong, J.	STA	MSH/Malawi
Ms Zingano, I.	Director	CMS

Annex: PH 2 - Literature Consulted

This annex comprises only specific literature for the Pharmaceuticals Review Team in addition to general SWAp Mid-term review literature.

Central Hospital Zomba LMIS reports 2005 - 2007
DFID, Progress on M&E Indicators, April 2007
Glocoms, Inc., CMS Strategic Business Plan, March 2007
MOH, Annual Implementation Plann 2006/2007
MOH, CMS Catalogue 2005/2006
MOH, CMS Factors contributing to expired drugs and medical supplies
MOH, CMS/RMSs, Health Facilities, Stock status reports July / August 2007
MOH, National Quality Assurance Policy, 2005
MOH, The Integrated Supervision Checklist, February 2005
Quarterly Review List – Review of Health Centre Activities, (unknown origin)
Report on the forecasting review exercise at Hippo Lodge, 6th – 11th August 2007
USAID Malawi, Health Commodities Logistics Management System, Standard Operating Procedure Manual, November 2006
MSH, Pharmaceutical Management Checklist
Zonal Health Office South East Pharmaceutical information and statistics
Zonal Health Office South West Pharmaceutical information and statistics

Annex PH 3 - Tender Process **(Steps)**



Annex PH 4 - Facility Survey Aug 2007

	Stores		Centr Hosp			DHO Pharmacy			DH	HC	
	1	2	1	2	3	1	2	3	1	1	2
Staff											
pharmacist					y						
pharmacy technician	Y	y	y	y	y	y	y	y			
nurse									y	y	y
Storage											
enough room	N	Y	Y	N	(Y)	N	N	N	N		(Y)
enough shelving	N	Y	Y	N	(Y)	N	(Y)	N	N		Y
by CMS classes	(Y)	Y	Y	(Y)	(Y)	(Y)		N	Y		
FEFO applied	(Y)	(Y)	Y	(Y)	(N)	(Y)	Y	(N)	(Y)		Y
cleanliness	(Y)	Y	Y	(Y)	(Y)	Y	Y	N	(Y)		Y
Temperature control											
thermometer in room	N	N	N	N	N	N	N	N	N	N	
store room (aircon / fan in working condition))	N	N	Y	N	N	Y	N	N	N		N
refridgerator	Y	Y	Y	Y			Y	Y	Y		
thermometer in refrigerator		5ºC	N	Y			1ºC	N	0º C		
refrigerator temperature control charts	N	N	N	N			N	N	N	N	
Logistic Tools / Drug Management											
(pre-) packing of items					Y				N	Y	Y
monthly stock take	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
computer system	Y	N	Y	Y	N	Y		Y	N		N
stock cards	Y	Y	Y	Y	Y	Y		Y	Y		Y
signature for transactions	N	N	N	N	N	N		N	Y		N
Training in drug/logistices management received?									4 days	4 days	4 days
ToT									N	N	N
Supervision											
received			N	N	N				N	Y	Y
done to HC						Y	Y	Y	N		
Patient register in pharmacy available	N	N	N	N	N	N	Y	N	N	N	N
Drug availability over past 3 years											
improved / deteriorated	d	d	d	d	d	d		d	d	d	d
compiled records on availability years back	(Y)	(N)	N	(N)	N	N		N	N	N	N

Annex: PH 5 a
Drug Availability by item

RS – Regional Store CH – Central Hospital DHO – District Health Office HC – Health Centre i/s – in stock o/s – out of stock

Code	Issue		US$	Code	RS	RS	RS	CH	CH	CH	DHO	HC	HC	HC	HC
					07.'07	07.'07	07.'07	07.'07	08.'07	08.'07	07.'07	07.'07	08.'07	07.'07	07.'07
A: Tablets and Capsules															
A0004	100	Acetazolamide 250mg	2.75	**DVA**	o/s	o/s	o/s	o/s		i/s					
A0006	100	Acyclovir 400mg	4.84	**DVA**	o/s	o/s	o/s	o/s		i/s	i/s				
A0230	1000	Albendazole 200mg	5.17	**HEA**	o/s	i/s	i/s	i/s	i/s	i/s	i/s	i/s	i/s		i/s
A0026	100	Allopurinol 100mg	2.80	**DEA**	o/s	o/s	o/s	o/s	o/s	o/s					
A0028	1000	Aminophylline 100mg	3.00	**HVA**	i/s	i/s	i/s	i/s	i/s	i/s	i/s	o/s	i/s	i/s	
A0034	100	Amitriptyline 25mg	0.73	**HVA**	i/s	o/s	o/s	i/s	i/s	i/s		o/s	o/s		
A0039	1000	Amoxycillin 250mg	16.63	**HVA**	o/s	i/s	o/s	o/s	i/s	i/s	i/s	o/s	i/s	i/s	o/s
A0046	1000	Aspirin 300mg	2.00	**HVA**	i/s	i/s	i/s	i/s	i/s	i/s	i/s	i/s	i/s	i/s	o/s
A0067	100	Benzhexol 5mg	1.32	**DVA**	o/s	o/s	o/s	i/s	o/s	o/s					
A0069	1000	Bisacodyl 5mg	2.50	**DEA**	o/s	o/s	o/s	o/s	o/s	i/s					

Code	Issue		US$	Code	RS	RS	RS	CH	CH	CH	DHO	HC	HC	HC	HC
A0089	100	Captopril 12.5mg	0.70	**DVA**	o/s	o/s	o/s	o/s		i/s					
A0090	1000	Carbamazepine 200mg	10.00	**DVA**	o/s	o/s	o/s	o/s	i/s	i/s					
A0091	*100*	*Carbimazole 5mg*	*1.47*	***DEA***	o/s	o/s	o/s	o/s	o/s	o/s					
A0094	100	Cephalexin 250mg	4.52	***DEA***	i/s	i/s	i/s		i/s		i/s				
A0102	1000	Chloramphenicol 250mg	9.92	**DVA**	i/s	i/s	i/s	i/s	i/s	i/s	i/s	o/s	o/s		
A0114	1000	Chlorpheniramine 4mg	1.32	**HVA**	i/s	i/s	i/s	i/s	i/s	i/s		o/s	o/s	i/s	i/s
A0111	1000	Chlorpromazine 100mg	7.07	**HVA**	o/s	i/s	o/s	o/s	i/s	o/s	i/s	i/s	o/s		
A0115	100	Cimetidine 400mg	1.00	**DEA**	i/s	o/s	i/s	i/s	i/s	i/s	i/s				
A0116	100	Ciprofloxacin 250mg	1.76	**DVA**	i/s	i/s	i/s	i/s	i/s	i/s	i/s				
A0119	100	Codeine phosphate 15mg	10.08	**CVA**	o/s	o/s	o/s	i/s		i/s					
A0124	28	Codeine phosphate 15mg	2.82	**CVA**	o/s	o/s	o/s								
A0405	1000	Cotrimoxazole 480mg	7.44	**HVA**	i/s	i/s	i/s	i/s	i/s	i/s	i/s	i/s	i/s	i/s	i/s
A0141	1000	Diazepam 5mg	2.29	**DEA**	i/s	i/s	i/s	i/s	i/s	i/s		o/s	i/s		
A0008	100	Diclofenac sodium 25mg	0.71	**DEA**	o/s	o/s	o/s	o/s	o/s	i/s	i/s				
A0146	100	Digoxin 250 micrograms	1.20	**CEA**	i/s	i/s	i/s	i/s	o/s	i/s					
A0145	100	Digoxin 62.5 micrograms	0.50	**CEA**	o/s	o/s	o/s								
A0138	100	Dihydrocodeine		**DEA**	o/s	o/s	o/s								

Code	Issue		US$	Code	RS	RS	RS	CH	CH	CH	DHO	HC	HC	HC	HC
		30mg	6.00												
A0414	1000	Doxycycline 100mg	16.50	**HVA**	i/s	o/s	i/s	i/s	i/s	i/s	i/s				
A0173	1000	Erythromycin 250mg	35.64	**HVA**	i/s	i/s	i/s	i/s	i/s	i/s					
A0456	1000	Ferrous sulphate 200mg	0.73	**HVA**	o/s	i/s	i/s	i/s		i/s	o/s	o/s	o/s		
A0185	1000	Ferrous sulphate 200mg / folic acid 250 micrograms	2.55	**HVA**	i/s	o/s	o/s	o/s	i/s	o/s	i/s	i/s	o/s		
A0177	100	Flucloxacillin 250mg	4.24	**DVA**	o/s	o/s	o/s	i/s		i/s	o/s				
A0187	100	Fluconazole 200mg	4.58	**DVA**	o/s	o/s	o/s	i/s	i/s	i/s					
A0186	1000	Fluoxetine 20mg	tba	**D E A**	o/s	o/s	o/s								
A0012	1000	Folic acid 5mg	1.61	**DVA**	i/s	i/s	i/s	i/s		i/s					
A0189	1000	Frusemide 40mg	3.26	**HVA**	i/s	o/s	o/s	i/s	i/s	i/s		o/s	i/s		
A0433	1000	Glibenclamide 5mg	2.00	**DVA**	i/s	i/s	i/s	i/s	i/s	i/s					
A0194	100	Griseofulvin 125mg	1.41	**DVA**	o/s	o/s	o/s	i/s	o/s	o/s					
A0195	100	Griseofulvin 250mg	2.21	**DVA**	o/s	o/s	o/s	i/s		o/s	o/s				
A0202	100	Hydralazine 25mg	2.75	**DVA**	i/s	i/s	o/s	i/s	i/s	i/s					
A0121	100	Hydrochlorothiazide 25mg	0.55	**HVA**	o/s	o/s	o/s			i/s	i/s	o/s	i/s		o/s
A0123	1000	Hydrochlorothiazide 25mg	1.47	**HVA**	o/s	o/s	o/s	o/s	i/s			o/s	o/s		
A0120	100	Hydrocortisone		**DEA**	o/s	o/s	o/s	o/s		o/s					

Code	Issue		US$	Code	RS	RS	RS	CH	CH	CH	DHO	HC	HC	HC	HC
		acetate 20mg	1.00												
A0457	1000	Ibuprofen 200mg	3.72	**DEA**	o/s	o/s	o/s			i/s	i/s				
A0210	1000	Imipramine Hcl 25mg	tba	**D E A**	o/s	o/s	o/s	o/s	o/s	i/s					
A0214	1000	Indomethacin 25mg	2.00	**DEA**	i/s	i/s	i/s	o/s	o/s	i/s	i/s	o/s	o/s	i/s	i/s
A0226	100	Ketoconazole 200mg	2.05	**DVA**	o/s	o/s	o/s	o/s	o/s	o/s		o/s	o/s		
A0228	1000	Magnesium trisilicate compound	2.02	**HEA**	i/s	i/s	i/s	i/s	i/s	i/s	i/s	o/s	i/s	i/s	i/s
A0238	100	Metformin HCl 500mg	1.98	**CEA**	o/s	o/s	o/s	o/s		i/s					
A0247	100	Methotrexate 2.5mg	12.06	**CEA**	o/s	o/s	o/s	i/s		i/s					
A0249	1000	Methyldopa 250mg	29.66	**DEA**	i/s	i/s	i/s	i/s	i/s	i/s	i/s				
A0261	1000	Metronidazole 200mg	4.00	**HVA**	o/s	o/s	o/s	i/s	i/s	i/s					
A0262	1000	Metronidazole 250mg	4.20	**HVA**	i/s	i/s	i/s	i/s		i/s					
A0263	50	Morphine sulphate 10mg	12.40	**DVA**	o/s	o/s	o/s	i/s		o/s	o/s				
A0265	1000	Nalidixic acid 500mg	39.18	**HVA**	o/s	o/s	i/s	i/s	i/s	i/s	i/s	o/s	i/s		
A0022	1000	Nicotinamide 50mg	9.71	**DEA**	o/s	o/s	o/s	o/s		o/s	o/s				
A0282	100	Nifedipine 10mg	1.05	**CVA**	o/s	o/s	o/s	i/s		i/s					
A0283	100	Nifedipine 20mg (slow release)	2.00	**CVA**	o/s	o/s	o/s	o/s		i/s					

Code	Issue		US$	Code	RS	RS	RS	CH	CH	CH	DHO	HC	HC	HC	HC
A0288	250	Nitrofurantoin 50mg	2.97	**DEA**	o/s	o/s	o/s	o/s	o/s	o/s					
A0296	1000	Paracetamol 500mg	3.00	**HVA**	i/s	i/s	i/s	i/s	i/s	i/s	o/s	i/s	i/s	i/s	o/s
A0302	1000	Penicillin V 250mg	11.67	**HVA**	i/s	i/s	i/s	i/s	i/s	i/s	i/s	o/s	i/s	i/s	o/s
A0318	1000	Phenobarbitone 30mg	2.50	**DVA**	i/s	o/s	o/s	i/s	i/s	i/s	i/s	i/s	i/s	i/s	o/s
A0325	1000	Phenytoin sodium 100mg	3.00	**DVA**	o/s	o/s	o/s	o/s	i/s	i/s	o/s	o/s	o/s		o/s
A0324	1000	Phenytoin sodium 25mg	2.00	**DVA**	i/s	i/s	i/s	i/s		o/s					
A0332	1000	Potassium chloride 600mg (slow release)	16.00	**DVA**	o/s	o/s	o/s	i/s	i/s	i/s					
A0336	1000	Praziquantel 600mg	95.00	**HVA**	i/s	o/s	i/s	i/s	i/s	i/s	i/s	o/s	o/s	i/s	
A0334	100	Prednisolone 5mg	3.31	**DVA**	o/s	i/s	i/s	i/s	i/s	i/s		o/s	o/s		
A0340	1000	Procyclidine 5mg	110.00	**CEA**	o/s	o/s	o/s								
A0342	100	Proguanil hydrochloride 100mg	6.66	**DVA**	o/s	o/s	o/s	o/s		o/s					
A0344	100	Promethazine hydrochloride 25mg	0.37	**HVA**	o/s	o/s	o/s	o/s	o/s	i/s	i/s	o/s	o/s	i/s	o/s
A0348	100	Propantheline bromide 15mg	6.59	**DVA**	o/s	o/s	o/s	o/s		o/s					
A0345	1000	Propranolol 40mg	2.98	**DVA**	o/s	i/s	i/s	o/s	i/s	i/s		o/s	i/s	i/s	o/s
A0353	1000	Pyridoxine		**DVA**	o/s	i/s	o/s	i/s		i/s	i/s	o/s	i/s		

Code	Issue		US$	Code	RS	RS	RS	CH	CH	CH	DHO	HC	HC	HC	HC
		(Vitamin B6) 20mg	3.00												
A0367	1000	Quinine hydrochloride 300mg	30.00	**DVA**	o/s	o/s	o/s	i/s	i/s	i/s	i/s	i/s	i/s	i/s	
A0377	1000	Salbutamol 4mg	2.18	**HVA**	o/s	i/s	i/s	i/s	o/s	i/s	o/s	i/s	o/s	i/s	o/s
A0380	100	Spironolactone 25mg	3.50	**CEA**	o/s	i/s	o/s	i/s	i/s	i/s					
A0395	1000	Sulphadoxine 500mg / pyrimethamine 25mg (SP)	17.64	**HVA**	i/s	i/s	i/s	i/s	i/s	i/s	i/s	i/s	i/s	i/s	i/s
A0436	100	Trifluoperazine 5mg	tba	**CVA**	o/s	o/s	o/s								
A0444	1000	Vitamin A 100,000 IU	22.44	**HVA**	o/s	o/s	o/s					i/s	o/s		
A0445	1000	Vitamin A 200,000 IU	29.29	**HVA**	o/s	o/s	o/s	o/s	o/s	i/s		o/s	o/s		
A0446	1000	Vitamin B complex strong	1.93	**DVA**	o/s	o/s	o/s	i/s	i/s	i/s	i/s	o/s	i/s		o/s
A0448	100	Vitamin, multiple	3.21	**HEA**	i/s	i/s	i/s	o/s		i/s		o/s	o/s		
B: Injectables															
B0004	each	Actinomycin D	27.00	**CEA**	o/s	o/s	o/s								
B0006	each	Adrenaline 1/1000, 1ml	0.09	**HVA**	o/s	o/s	o/s	i/s	i/s	i/s		o/s	o/s		

Code	Issue		US$	Code	RS	RS	RS	CH	CH	CH	DHO	HC	HC	HC	HC
B0012	each	Aminophylline 25mg/ml, 10ml	0.04	**HVA**	i/s	i/s	o/s	i/s	i/s	i/s		i/s	i/s		
B0013	5	Amphotericin B 50mg,	19.00	**DVA**	o/s	o/s	o/s	o/s		i/s					
B0015	each	Ampicillin injection 250mg, PFR	0.13	**DVA**	o/s	o/s	o/s	i/s	i/s	i/s					
B0017	each	Ampicillin injection 500mg, PFR	0.17	**DVA**	o/s	o/s	o/s	i/s		o/s					
B0024	each	Atropine sulphate 600 micrograms/ml, 1ml	0.05	**HVA**	o/s	i/s	i/s	i/s	i/s	i/s	i/s	o/s	i/s		
B0224	each	Benzathine benzylpenicillin 1.44g (2.4MU),	0.24	**HVA**	i/s	i/s	o/s	i/s	i/s	i/s	i/s				
B0220	each	Benzylpenicillin 1g , PFR	0.88	**HVA**	o/s	o/s	o/s			o/s		o/s	o/s		o/s
B0222	each	Benzylpenicillin 3g (5MU), PFR	0.36	**DVA**	o/s	o/s	o/s	i/s	i/s	i/s	i/s	i/s	i/s	i/s	o/s
B0030	each	Calcium gluconate 10%, 10ml	0.14	**CEA**	i/s	o/s	o/s		i/s						
B0032	each	Cefotaxime 500mg, PFR	0.19	**DVA**	o/s	o/s	o/s	i/s		o/s					
B0034	each	Chloramphenicol succinate 1g, PFR	0.24	**HVA**	i/s	i/s	i/s	i/s	i/s	i/s	i/s	i/s	i/s	i/s	
B0040	each	Chlorpromazine hydrochloride 25mg/ml, 2ml	0.06	**DVA**	o/s	o/s	o/s	i/s	o/s	o/s	o/s	o/s	o/s	i/s	
B0454	each	Darrows half-		**HVA**	i/s	i/s	o/s	i/s	o/s	i/s	i/s	o/s	o/s		o/s

Code	Issue		US$	Code	RS	RS	RS	CH	CH	CH	DHO	HC	HC	HC	HC
		strength in dextrose 5%, 1000ml	0.96												
B0060	each	Dexamethasone 5mg/ml, 5ml	0.25	**DVA**	o/s	o/s	o/s	o/s	i/s	i/s					
B0406	each	Dextrose (glucose) 5%, 1000ml	0.83	**HVA**	i/s	i/s	i/s	i/s	i/s	i/s		i/s	i/s		o/s
B0062	each	Dextrose 50%, 20ml	0.43	**HVA**	i/s	o/s	o/s	i/s	i/s	i/s		i/s	i/s		
B0064	each	Diazepam 5mg/ml, 2ml	0.08	**HVA**	o/s	o/s	o/s	o/s	i/s	i/s	o/s	o/s	o/s	i/s	o/s
B0068	each	Digoxin 250 micrograms/ml, 2ml	0.08	**CVA**	o/s	o/s	o/s	i/s		i/s					
B0081	each	Ergometrine maleate 500mcg/ml + Oxytocin 10IU/ml, 1ml	0.21	**HVA**	o/s	o/s	o/s	i/s	i/s	i/s	i/s	i/s	o/s	i/s	i/s
B0083	each	Flucloxacillin 250mg, vial, PFR	0.29	**DVA**	o/s	o/s	o/s	o/s		o/s					
B0084	each	Fluconazole 2mg/ml, 25ml	3.63	**DVA**	o/s	o/s	o/s	i/s		i/s					
B0086	each	Fluphenazine decanoate 25mg/ml, 2ml	0.43	**DVA**	o/s	o/s	o/s	o/s		o/s	o/s				
B0088	each	Frusemide 10mg/ml, 2ml	0.03	**DVA**	o/s	i/s	i/s	i/s	i/s	i/s	i/s				
B0446	each	Gelatin (as polygeline) 500ml pack iv infusion	5.23	**DEA**	o/s	o/s	o/s	i/s		i/s	i/s				
B0096	each	Gentamicin		**DVA**	o/s	o/s	o/s								

Code	Issue		US$	Code	RS	RS	RS	CH	CH	CH	DHO	HC	HC	HC	HC
		10mg/ml, 2ml	0.08												
B0097	each	Gentamicin 40mg/ml, 2ml	0.12	**HVA**	o/s	o/s	o/s	i/s	i/s	i/s					
B0102	each	Haloperidol 5mg/ml, 2ml	0.06	**DEA**	o/s	o/s	o/s								
B0106	each	Hydralazine hydrochloride 20mg/ml, 1ml	0.80	**DVA**	o/s	i/s	i/s	i/s	i/s	i/s					
B0098	each	Hydrocortisone acetate 25mg/ml, 5ml	0.55	**DVA**	o/s	o/s	o/s	i/s		i/s					
B0107	each	Hydrocortisone sodium succinate iv 50mg/ml, 2ml	0.44	**DVA**	o/s	o/s	o/s	i/s	i/s	o/s					
B0110	each	Insulin soluble 100 IU/ml, 10ml	9.65	**DVA**	i/s	i/s	i/s	i/s	i/s	i/s	o/s				
B0118	each	Insulin zinc suspension (lente) 100 IU/ml, 10ml	9.65	**DVA**	i/s	i/s	i/s	i/s	i/s	i/s	o/s				
B0352	each	Ketamine hydrochloride 50mg/ml, 10ml	0.67	**DVA**	i/s	i/s	i/s	i/s	i/s	i/s					
B0144	each	Lignocaine hydrochloride 1%, 25ml	0.29	**HVA**	o/s	o/s	o/s	o/s	o/s	o/s	i/s	o/s	o/s		o/s
B0143	each	Lignocaine hydrochloride 2%, 25ml	0.21	**HVA**	o/s	o/s	o/s	o/s	i/s	i/s	i/s	i/s	i/s		
B0145	each	Lignocaine hydrochloride 5%+glucose 7.5%,heavy	0.16	**DVA**	i/s	i/s	i/s	i/s	i/s	i/s		o/s	o/s		

Code	Issue		US$	Code	RS	RS	RS	CH	CH	CH	DHO	HC	HC	HC	HC
		spinal,2ml													
B0151	each	Magnesium sulphate 50%, 2ml ampoule	3.08	**DVA**	i/s	i/s	o/s	i/s		i/s	i/s				
B0162	each	Mannitol 20%, 250ml	2.49	**CVA**	o/s	i/s	i/s	i/s		o/s					
B0181	each	Metronidazole 5mg/ml, 100ml	0.47	**DVA**	o/s	i/s	i/s	i/s	i/s	i/s	i/s				
B0182	each	Morphine sulphate 15mg/ml, 1ml	0.17	**DVA**	o/s	o/s	o/s	i/s		i/s					
B0210	each	Oxytocin 10 IU/ml, 1ml	0.09	**DVA**	i/s	i/s	o/s	i/s	o/s	i/s	i/s				
B0218	each	Paraldehyde, 10ml	32.50	**HVA**	o/s	o/s	i/s	i/s	i/s	o/s		o/s	i/s		o/s
B0234	each	Pethidine hydrochloride 50mg/1ml, 2ml	0.33	**DVA**	o/s	o/s	o/s	i/s		i/s	i/s				
B0240	each	Phenobarbitone sodium 200mg/ml, 1ml	0.17	**DVA**	o/s	o/s	o/s	o/s	o/s	o/s	i/s	o/s	o/s		o/s
B0244	each	Phytomenadione 10mg/ml, 1ml (Vitamin K)	0.20	**DVA**	o/s	o/s	o/s	i/s							
B0242	each	Phytomenadione 2mg/ml (Vitamin K)	0.18	**DVA**	o/s	o/s	o/s		i/s	i/s					
B0246	each	Potassium chloride 20%, 10ml	0.98	**DVA**	o/s	o/s	o/s	i/s	o/s	o/s					
B0262	each	Promethazine hydrochloride 25mg/ml, 2ml	0.11	**HVA**	o/s	o/s	o/s	i/s	i/s	i/s	i/s	i/s	i/s	i/s	

Code	Issue		US$	Code	RS	RS	RS	CH	CH	CH	DHO	HC	HC	HC	HC
B0270	each	Quinine dihydrochloride 300mg/ml, 2ml	0.12	**HVA**	i/s	i/s	i/s	i/s	i/s	i/s		i/s	i/s		
B0276	each	Salbutamol sulphate 1mg/ml, 5ml	0.16	**DVA**	o/s	o/s	o/s								
B0450	each	Sodium chloride 0.9%, 1000ml,viaflex (pouch).	1.00	**HVA**	i/s	i/s	i/s	i/s	i/s	i/s	i/s	i/s	i/s		o/s
B0458	each	Sodium lactate compound (Ringer's lactate), 1000ml,viaflex (pouch)	1.00	**HVA**	i/s	i/s	i/s	i/s	i/s	i/s	i/s	i/s	i/s		
B0290	each	Suxamethonium chloride 50mg/ml, 2ml	0.76	**DVA**	o/s	o/s	i/s	i/s	i/s	i/s					
B0322	each	Thiopentone sodium 500mg, PFR	0.59	**DVA**	i/s	i/s	i/s	i/s	i/s	i/s					
B0330	each	Vincristine sulphate 1mg PFR	1.98	**CVA**	o/s	o/s	o/s	i/s		i/s					
B0346	each	Water for injections, 10ml	0.05	**HVA**	i/s	i/s	i/s	i/s	i/s	i/s	i/s	i/s	o/s		
C: Vaccine															
C0020	each	Anti-snakebite serum	tba	**DEA**	o/s	o/s	o/s								

Code	Issue		US$	Code	RS	RS	RS	CH	CH	CH	DHO	HC	HC	HC	HC
C0077	each	Hepatitis B vaccine, 20mcg/ml, 1ml vial	1.62	**CVA**	i/s	o/s	o/s								
C0042	each	Rabies vaccine course, 1 dose PFR & diluent x 5 vials	48.40	**DVA**	i/s	i/s	i/s			i/s	o/s				
C0010	each	Tetanus antitoxin 1500 IU	1.93	**HVA**	o/s	o/s	o/s	o/s		o/s		o/s	o/s		
E: Galenicals															
E0629	5g	Acyclovir eye ointment 3%	0.35	**DVA**	o/s	o/s	o/s	i/s		o/s					
E0014	5L	Alcohol 96%	6.75	**HVA**	o/s	o/s	o/s	o/s	i/s	o/s	o/s	o/s	o/s		
E0032	20	Amethocaine hydrochloride eye drops 1% (Minims)	17.02	**DEA**	i/s	o/s	o/s								
E0248	100ml	Amoxycillin 125mg/5ml suspension	0.51	**HVA**	o/s	o/s	o/s	i/s	i/s	i/s	i/s	o/s	i/s		
E0310	3.5g	Atropine sulphate eye ointment 1%	0.20	**DVA**	o/s	o/s	o/s	o/s	o/s	o/s	o/s				
E0192	500ml	Benzoic acid + salicylic acid compound lotion	1.75	**HEA**	o/s	o/s	o/s		o/s		o/s	o/s	o/s		
E0330	500g	Benzoic acid 6% + salicylic acid	4.35	**HEA**	i/s	i/s	i/s	i/s		i/s	i/s	o/s	o/s	i/s	

Code	Issue		US$	Code	RS	RS	RS	CH	CH	CH	DHO	HC	HC	HC	HC
		3% ointment													
E0002	500ml	Benzyl benzoate application 25%	1.19	**HVA**	i/s	i/s	i/s	i/s	i/s	i/s	o/s	i/s	i/s		
E0585	12	Bismuth subgallate compound suppositories	6.59	**DVA**	i/s	i/s	i/s	i/s	i/s	i/s					
E0012	5L	Black disinfectant	6.55	**HVA**	i/s	i/s	i/s		i/s			i/s	o/s		o/s
E0191	500ml	Calamine lotion + sulphur 2%	1.34	**HVA**	i/s	i/s	i/s	i/s	i/s	i/s	i/s	o/s	o/s	i/s	o/s
E0189	500ml	Calamine lotion aqueous	1.25	**HVA**	i/s	o/s	o/s	i/s	i/s		i/s	o/s	o/s	i/s	o/s
E0534	5L	Cetrimide 15% + chlorhexidine 1.5% soln.for dilution (Savlon)	15.00	**HVA**	o/s	o/s	o/s	o/s		i/s		i/s	o/s	i/s	
E0312	3.5g	Chloramphenicol 1% eye ointment	0.11	**HVA**	o/s	o/s	i/s	i/s	i/s	i/s		o/s	o/s		
E0254	100ml	Chloramphenicol 125mg/5ml suspension	0.56	**DVA**	i/s	o/s	o/s	i/s	i/s	o/s	i/s				
E0020	5ml	Chloramphenicol ear drops 5%	0.20	**DVA**	o/s	o/s	o/s								
E0036	5ml	Chloramphenicol eye drops 0.5%	0.13	**HVA**	i/s	o/s	o/s	o/s	o/s	i/s	o/s	o/s	o/s		
E0535	5L	Chlorhexidine 1.5% soln	16.83	**HVA**	i/s	i/s	i/s	i/s		i/s		o/s	o/s		
E0552	500g	Chlorinated lime, pharmaceutical grade, 30% chlorine	1.25	**HVA**	o/s	o/s	o/s	o/s	i/s	i/s		o/s	i/s		
E0258	100ml	Chlorpheniramine		**DVA**	o/s	o/s	o/s	o/s		o/s	o/s				

Code	Issue		US$	Code	RS	RS	RS	CH	CH	CH	DHO	HC	HC	HC	HC
		2mg/5ml suspension	0.22												
E0550	20g	Clotrimazole cream 1%	0.28	**DVA**	o/s	o/s	o/s	i/s		o/s					
E0205	100ml	Cotrimoxazole 240mg/5ml	0.60	**HVA**	o/s	o/s	o/s	i/s		i/s		o/s	o/s		
E0037	5ml	Cyclopentolate hydrochloride eye drops 0.5%	1.43	**DEA**	o/s	o/s	o/s								
E0034	5ml	Dexamethasone eye drops 0.1%	0.12	**CVA**	o/s	o/s	i/s	i/s	i/s	i/s					
E0356	500g	Emulsifying ointment	3.54	**HEA**	i/s	i/s	i/s				o/s	i/s	o/s	i/s	o/s
E0266	100ml	Erythromycin suspension 125mg/5ml	0.82	**HVA**	o/s	o/s	o/s	i/s	i/s	i/s		o/s	i/s		
E0268	100ml	Ferrous sulphate mixture paediatric 60mg/5ml	0.31	**HVA**	i/s	o/s	o/s	i/s		o/s	o/s	o/s	o/s		o/s
E0271	100ml	Flucloxacillin 125mg/5ml elixir	1.25	**DEA**	o/s	o/s	o/s	i/s	o/s	o/s					
E0041	20	Fluorescein sodium eye drops 1% (Minims)	14.62	**DEA**	o/s	o/s	o/s								
E0042	5ml	Gentamicin 0.3% eye drops	0.17	**DVA**	o/s	i/s	i/s	i/s	i/s	i/s	i/s				
E0404	500ml	Gentian violet paint, aqueous 1%	1.49	**HVA**	o/s	i/s	i/s	i/s	i/s	i/s	i/s	o/s	i/s		o/s
E0546	5L	Gluteraldehyde solution 2% buffered (Cidex) with activator	6.14	**DEA**	i/s	o/s	i/s			i/s					

Code	Issue		US$	Code	RS	RS	RS	CH	CH	CH	DHO	HC	HC	HC	HC
E0408	500ml	Glycerine	1.92	**DVA**	i/s	i/s	o/s	o/s		i/s					
E0586	12	Glycerine suppositories (adult), 4g	0.60	**DEA**	o/s	i/s	i/s		i/s						
E0587	12	Glycerine suppositories (child), 2g	0.60	**DEA**	o/s	o/s	o/s								
E0277	100ml	Halofantrine suspension 100mg/5ml (Halfan)	11.58	**DEA**	o/s	o/s	o/s		o/s						
E0314	3.5g	Hydrocortisone eye ointment 1%	0.33	**DEA**	o/s	o/s	o/s	o/s	o/s	o/s	o/s				
E0358	15g	Hydrocortisone ointment 1%	0.50	**DEA**	o/s	o/s	o/s	i/s	o/s	i/s	i/s				
E0554	500ml	Iodine solution, weak (iodine tincture)	2.12	**HVA**	i/s	o/s	o/s	i/s	i/s	i/s	i/s	o/s	i/s	i/s	o/s
E0276	100ml	Ketoconazole suspension 100mg/5ml	1.14	**DVA**	o/s	o/s	o/s	o/s	o/s	o/s	o/s				
E0387	20g	Lignocaine gel 2%, 20g	1.25	**DEA**	o/s	o/s	o/s								
E0574	5L	Methylated spirit	6.75	**HVA**	o/s	i/s	o/s	o/s	i/s	i/s	i/s	o/s	i/s	i/s	o/s
E0282	100 ml	Metronidazole oral suspension 200mg /5ml	0.27	**HVA**	o/s	o/s	o/s	o/s	o/s	o/s	i/s	o/s	o/s		
E0602	100ml	Multivitamin syrup	0.56	**HVA**	o/s	o/s	o/s	o/s		o/s	o/s	o/s	o/s		
E0278	20ml	Nystatin oral suspension	0.59	**HVA**	i/s	i/s	i/s	i/s	i/s	i/s		o/s	i/s	i/s	o/s

Code	Issue		US$	Code	RS	RS	RS	CH	CH	CH	DHO	HC	HC	HC	HC
		100,000 IU/dose													
E0006	each	Oral rehydration salt, satchet (WHO formula) for 1L solution	0.07	**HVA**	o/s	o/s	o/s	i/s	i/s	i/s	i/s	o/s	i/s	o/s	o/s
E0279	100ml	Paracetamol syrup 120mg/5ml	0.30	**HVA**	i/s	o/s	o/s	i/s	i/s	i/s	i/s	i/s	i/s		o/s
E0601	500ml	Paraffin liquid	1.17	**DEA**	o/s	i/s	i/s								
E0410	500g	Paraffin soft yellow	1.74	**DEA**	i/s	o/s	o/s				o/s				
E0053	5ml	Pilocarpine hydrochloride eye drops 2%	1.56	**CVA**	i/s	i/s	o/s		o/s						
E0591	500ml	Povidone iodine 10% in alcoholic solution	2.00	**DEA**	o/s	o/s	i/s	i/s		o/s					
E0286	100ml	Promethazine hydrochloride elixir 5mg/5ml	1.53	**HVA**	o/s	o/s	i/s	o/s	i/s	o/s	i/s		o/s		
E0631	30ml	Salbutamol solution for nebulising 5mg/ml	0.93	**DVA**	o/s	o/s	o/s				i/s				
E0152	each	Salbutamol sulphate aerosol inhalation, 100mcg/dose, 200 doses	1.49	**DVA**	o/s	o/s	o/s	i/s	o/s	i/s					
E0333	500g	Salicylic acid 10% ointment (in YSP)	2.70	**DEA**	o/s	o/s	i/s								
E0334	500g	Salicylic acid		**DEA**	i/s	i/s	i/s		i/s						

Code	Issue		US$	Code	RS	RS	RS	CH	CH	CH	DHO	HC	HC	HC	HC
		ointment 5% (in YSP base)	2.24												
E0599	each	Silver nitrate stick pencil (toughened)	0.66	**DEA**	o/s	o/s	o/s				o/s				
E0548	50g	Silver sulphadiazine cream 1%	0.61	**HEA**	i/s	i/s	i/s	i/s		i/s	o/s		o/s		
E0325	3.5g	Tetracycline eye ointment 1%	0.10	**HVA**	o/s	o/s	o/s	i/s	i/s	o/s			o/s	o/s	o/s
E0416	500g	Zinc oxide & salicylic acid paste BP (Lassar's)	4.04	**HEA**	o/s	o/s	o/s						o/s		
E0390	500g	Zinc oxide 15% ointment (in EO base)	4.14	**HEA**	o/s	o/s	o/s		i/s			o/s	o/s		o/s
E0392	500g	Zinc oxide 15% ointment +sulphur 5%	2.84	**HEA**	i/s	i/s	i/s					o/s	o/s		
E0426	500g	Zinc paste compound + sulphur 5%	4.27	**DEA**	o/s	o/s	o/s								

Annex PH 5 b) Drug Availability by %

Health Facility	CMS catalogue classes on stock status list	No of A items on respective facility list	No of A items in stock	% A items in stock	No of A items out of stock	% A items out of stock
CMS Catalogue	**A, B, C, E**	207				
RMS 1	**A, B, C, E**		71	34.3	136	65.7
RMS 2	**A, B, C, E**		71	34.3	136	65.7
RMS 3	**A, B, C, E**		70	33.8	137	66.2
All RMS together	***A, B, C, E***		*98*	*47.3*	*109*	*52.7*
CH 1	**A, B, C, E**		115	55.6	92	44.4
CH 2	**A, B, C, E**		94	45.4	113	54.6
CH 3	**A, B, C, E**		124	59.9	83	40.1
CMS Catalogue	**A, B, C, E**	188				
DHO	**A, B, C, E**		62	33.0	126	67.0
CMS Catalogue	**A, B, C, E**	80				
HC 1	**A, B, C, E**		25	31.3	55	68.7
HC 2	**A, B, C, E**		33	41.3	47	58.7
HC 3	**A, B, C, E**		24	30.0	56	70.0
HC 4	**A, B, C, E**		6	7.5	74	92.5

Annex PH 6 -
Rapid Assessment of Supply Chain-related systems currently/recently installed in Malawi.

Review of key supply-chain related softwares revealed the following packages currently in situ currently, or as deployed in the recent past, or as are being actively planned :

Accpac : The prevailing (since 2002) financial and accounting system for CMS; international African private –sector sourced but supported by a local Malawian distributor. There remains potential to purchase and implement additional Enterprise Resource Planning (ERP) modules addressing national and regional level logistics decision-support functionality. The procurement of these incremental modules is currently proposed by CMS and is under active consideration by the Ministry of Health.

Supply Chain Manager : A USAID/Deliver-sourced software stores management and order processing package, originally installed to support only the family planning distribution network, but whose usage has now been extended to all the essential drugs and medical supplies sourced from CMS. In situ at all districts (usually at the district hospital) where. sub-district requisitions are aggregated on the system and forwarded to the relevant CMS for fulfillment. The system requires input of respective facility stock levels and consumption data (ie within each district) in order to produce an aggregated recommended reorder quantity (ie based upon a system-defined reorder algorithm) for that district. This aggregated order, together with the breakdown of the facility requirements from which it is derived is submitted, via a system-generated hardcopy, to one of the three regional CMS's for actioning. Scheduled to be implemented, as interim measure, at CMS pending introduction of Accpac logistics modules.

Pipeline : A second USAID/Deliver-sourced system designed to facilitate national level scheduling of inbound consignments in order to optimize stock levels. Inputs include order quantities, consumption data and stock-on-hand.

Excel :A small-scale local bespoke development deployed at all the CMS sites, used to produce computer printouts of delivery notes.

ePICS – sourced from a local non-profit IT organization (Baobab Health Partnership), the system addresses facility/hospital level storeroom, dispensing and prescribing functionality, plus associated reporting in realtime. This system has been implemented as a pilot through a USAID-funded project (Hospital Reform Programme) at the KCH over the last 18 months (the project end shortly). Ongoing system development has been stalled by lack of continued funding and the project will end in September 2007.

Mzuzu Central Hospital – Taiwanese Medical Mission-sourced pharmaceutical management system.

Queen Elizabeth Central Hospital, Blantyre – manual & spreadsheet drug management systems.

SIGMED : A DFID-funded, Netherlands private-sector sourced logistics system deployed at the CMS-Lilongwe Region; originally intended for national rollout but now seemingly fallen into disuse. Suggestions of user sabotage circulate.

IFMIS : The backbone Ministry of Finance, Accountant General's support system as recently implemented. CMS financial systems must be consistent with all related reporting requirements whilst CMS remains a public sector entity.

HMIS – data captured by manual system by HMIS staff at every facility level monthly, replete with pre-printed documentation. Reporting quarterly to national level utilizing the District Health Information Systems, a South-Africa sourced package customized for Malawi's requirements. HMIS department a fairly recent innovation (2001), but currently seemingly understaffed and ill-equipped to meet user demands. Department suffer also from uncollaborative approach by some partners and also – until recently – significant funding shortages. Currently unable to produce meaningful drug availability indicators over the period of SWAP, partly due to methodology changes early 2007 prohibiting year-on-year comparisons.

Annex PH 7 -
Recommendations for enhancing Supply Chain Manager system functionality.

Based upon a - very brief - review of the Supply Change Manager software and documentation (as required to address this assignment's TORs), the following developments are recommended :

- Add a field against each product to identify number of out-of-stock days in the month

- Add system functionality to automatically compute consumption data making appropriate adjustments for the above (also, to make provision for an adjustment reflecting stock-outs for an entire month).

- Separate the current consolidated "description' field into separate fields for "form," "dosage," "pack size," unit of measure" and "description".

- Change "quantity used" heading to "quantity consumed"

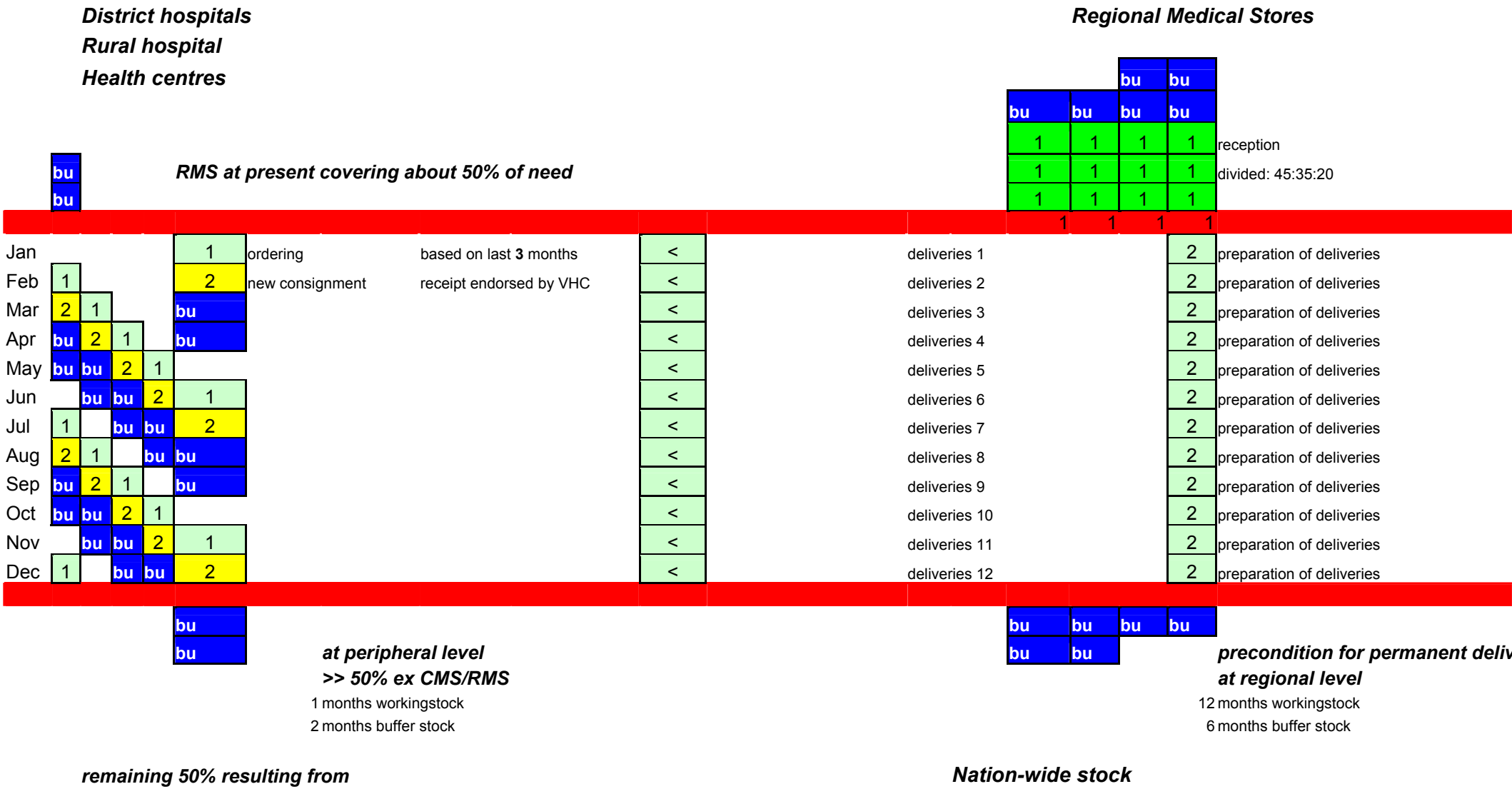
- Add a new column (suggest, defaulting to the system-suggested order quantity), denoting the actual order quantity

- Make the system-suggested order quantity as not being capable of manual override (ie order quantity changes must be identified via the new column above).

- Introduce a new freeform text column for "comments" against the "actual order quantities" such that the rationale for any order quantity changes might be recorded.

Annex PH8 (a): **Stock movement and cost situation of present concept based on annual CMS tender**

(Operational principle/s of nation-wide stock management under actual conditions)



privat market at about 4-times higher prices

1	months workingstock	6.5 months	Total average working stock
1	months buffer stock	8.0 months	Total buffer stock

Opportunity costs (10% of stock) >>

Total annual c

50% at CMS/RMS price conditions

50% at private market prices

	0.5 months	Total average working stock
	1 months	Total buffer stock

Opportunity costs (10% of stock) >>

Total annual c

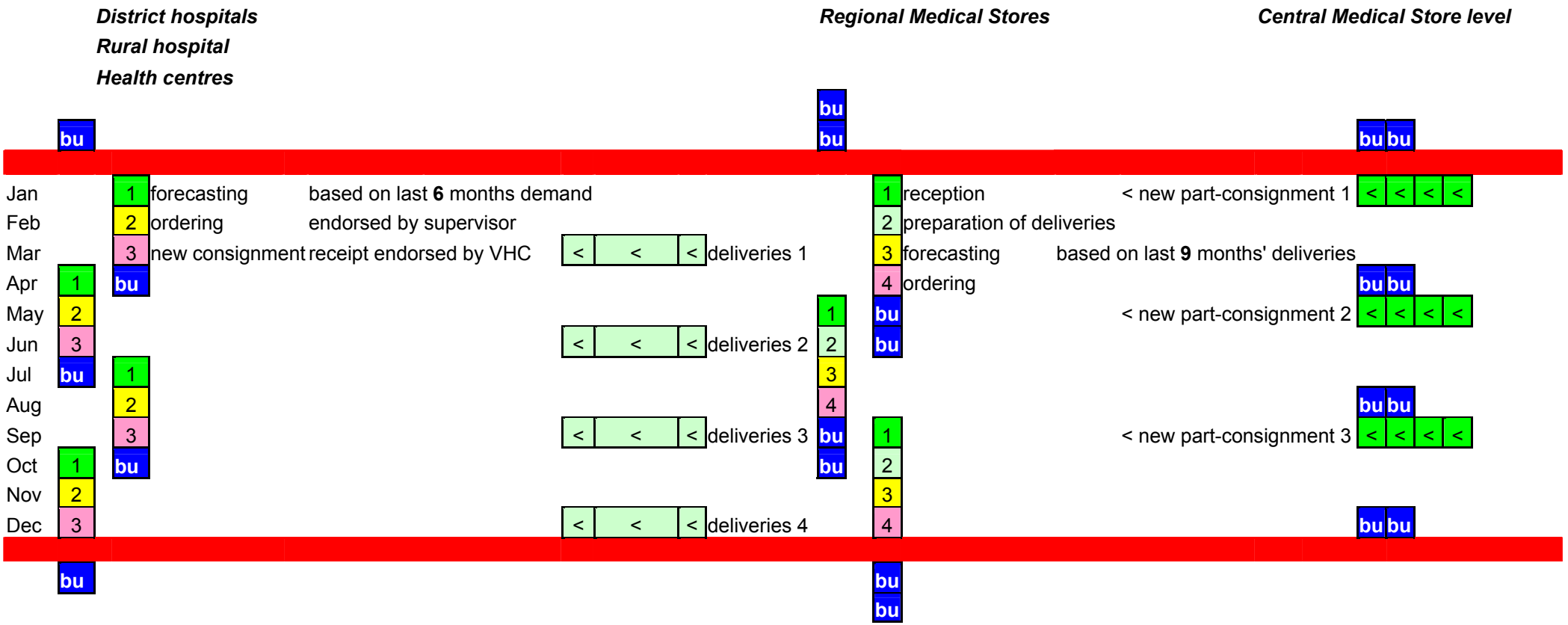
Best case:

Total drug + medical supplies' cost

Annex PH8 (b):

Stock movement and cost situation of a uniform CMS headed supply and distribution system based on a frame-tender

(Operational principle/s of nation-wide stock management based on frame tender)



at peripheral level

3 months workingstock

1 months buffer stock

at regional level

4 months workingstock

2 months buffer stock

at national level

2 months buffer stock

Nation-wide

5.5 months Total average working stock

5.0 months Total buffer stock

Possible: ***Total consumption based on best price offers and demand driven***

Opportunity costs (10% of stock) >> **1.1 *months value***

Possible: ***Total drug + medical supplies' cost*** **13.1 *months value***

Annex PH8 (c):

Pharmaceutical professional staff needed at MoH facilities

(in a uniform CMS headed supply and distribution system / revised SWAp pharmaceutical wing)

n° of facilities	name		n° of Pharmacist		n° of Ph. Technician		n° of Ph. Assistant		n° of other staff		Total prof staff
				Total		*Total*		*Total*		*Total*	
1	CMS		1	**1**	4	**4**	4	**4**	21	**21**	
3	RMS		1	**3**	2	**6**	4	**12**	23	**69**	
4	Central hospital		1	**4**	1	**4**	2	**8**			
4	attached OPD				1	**4**	2	**8**	5	**20**	
5	Zonal office		1	**5**					5	**25**	
22	District hospital				1	**22**	1	**22**	3	**66**	
22	attached OPD				1	**22**	2	**44**	2	**44**	
19	(rural) hospital				1	**19**	2	**38**	2	**38**	
288	Health centre						1	**288**			
				13		***81***		***424***		***283***	***801***
		approx. monthly salary	US$	500.00		300.00		200.00		150.00	
			Total/month	***6,500***		***24,300***		***84,800***		***42,450***	***158,050***

Total per year **1,896,600**

Estimates of staff needs and salaries based on:

Multi-Country Study of Medicine Supply and Distribution Activities of Faith-Based Organizations in Sub-Saharan African Countries.
WHO and Ecumenical Pharmaceutical Network (2006)
This country study covers *inter alia* Malawi.

Annex PH 8 (d)

Budget estimates needed for assuring continuous access to drugs based on expressed demand (in a uniform CMS headed drug supply and distribution system)

disease		% of population	coverage	cost per case incl. lab etc (in US$)	n° of cases	Total cost (in US$)	
FP + MCH		20	30%	2.5	2,700,000	6,750,000	
< 5 underweight		1.8	full	0.4	243,000	97,200	
< 5 diarrhoea		5.6	full	1.6	756,000	1,209,600	
HIV/AIDS		14.1	30%	175.0	1,903,500	99,933,750	
STD	assumed	21.0	50%	25.0	2,835,000	35,437,500	
TB	common cases	0.5	full	50.0	67,500	3,375,000	
	15% of HIV/AIDS	2.1	50%	50.0	142,763	7,138,125	
Malaria		28.0	50%	0.9	3,780,000	1,701,000	
Cancer	assumed	5.0	10%	350.0	675,000	23,625,000	
Cardiovascular	assumed	4.0	full	2.0	540,000	1,080,000	
Infections	assumed	8.0	full	2.4	1,080,000	2,592,000	
ARI	assumed	8.0	full	1.6	1,080,000	1,728,000	
Gastrointestinal	assumed	6.0	full	0.6	810,000	453,600	
others	assumed	5.0	full	2.8	675,000	1,890,000	**US$ per capita**
					17,287,763	187,010,775	**14**
							special programmes
					./. thereof: Malaria, FP, TB, HIV/AIDS	118,897,875	**9**

		national budget(s) MoH + CHAM + NGOs, etc
	68,112,900	***5***
+ 9,15% opportunity costs	6,232,330	
+ 5% local transport	3,405,645	
+ salaries	1,896,600	
	79,647,475	**6**

Treatment price calculations (estimates) are based on:

(1) Fr. von Massow, R. Korte, C. Cheka, M. Kuper, H. Tata, B. Schmidt-Ehry:
Financially Independent Primary Health Care Drug Supply System has been Functional in the North West Province of Cameroon for 10 Years.
in: Tropical Medicine and International Health: 3 (10), 788-801 (1998)

(2) Fr. von Massow:
Development of Essential Drug Management System and its links to the Health Delivery System
Health Sector Reform Project in The Philippines
and Department of Health and the World Bank (2004)

Health status Estimates of Population related figures are based on:

(1) HMIS-Bulettin 2004-5/ July-December 2005
(2) DHS 2004
(3) GFATM 2007
(4) IFM
2007
(5) UNDP 2007
internet data of countries with similar conditions

Annex: PH 9a

Drugs from the EHP (Group A,B,C,E)

Item	Available at Regional Level	Available at Regional Level	Available at Regional Level
Albendazole, tablets 200mg	*(i/s)*	*i/s*	*(i/s)*
Amoxycillin, capsules 250mg	*(i/s)*	*(i/s)*	*(i/s)*
Ampicillin, injection 1g (0.5g)	*o/s*	*(i/s)*	
Aspirin, tablets 300mg	*i/s*	*i/s*	*i/s*
Atropine 1ml	*(i/s)*	*i/s*	*(i/s)*
Benzathine benzylpenicillin 1.44g inj. 2.4M IU	*(i/s)*	*i/s*	
Benzyl benzoate application 25%	*i/s*	*i/s*	*(i/s)*
Benzylpenicillin 1g (1MU), PFR	*o/s*	*o/s*	*o/s*
Calamine lotion	*(i/s)*	*(i/s)*	*(i/s)*
Cetrimide 5L	*o/s*	*(i/s)*	*(i/s)*
Chloramphenicol succinate, injection 1g, PFR	*i/s*	*i/s*	*i/s*
Chloramphenicol, tablets 250mg	*i/s*	*i/s*	*o/s*
Cotrimoxazole, tablets 480mg	*i/s*	*i/s*	*i/s*
Darrows, half strength, IV fluid	*(i/s)*	*(i/s)*	*o/s*
Dextrose (glucose) 5%, 1000mL	*i/s*	*i/s*	*(i/s)*
Dextrose 50%, 20mL	*(i/s)*	*i/s*	*(i/s)*
Diazepam 5mg/ml, injection 2ml	*o/s*	*(i/s)*	*(i/s)*
Doxycycline, tablet 100mg	*(i/s)*	*i/s*	*(i/s)*
Erythomycin, capsule 250mg	*i/s*	*i/s*	
Erythromycin syrup, 125mg/5mL	*o/s*	*i/s*	*(i/s)*
Ferrous salt 200mg folic acid 500 µg	*(i/s)*	*(i/s)*	*(i/s)*
Folic acid, tablet 5mg	*i/s*	*(i/s)*	
Gelatin (as polygeline) 500mL pack iv	*o/s*	*(i/s)*	
Gentamicin 10 mg/ml, injection 2ml	*o/s*		
Gentamycin 40 mg/ml, injection 2ml	*o/s*	*i/s*	
Gentian violet paint, aqueous 1%	*(i/s)*	*i/s*	*(i/s)*
Hydralazine hydrochloride 20mg/mL, 1mL	*(i/s)*	*i/s*	
Ketamine, injection 100mg	*i/s*	*i/s*	
Lidocaine 1%, injection 50 ml	*o/s*	*o/s*	*o/s*
Lidocaine 2%, injection 50ml	*o/s*	*(i/s)*	*(i/s)*
Metronidazole 5mg/ml, injection 100ml	*(i/s)*	*i/s*	
Metronidazole, tablets 200 mg	*o/s*	*i/s*	
Metronidazole, tablets 250mg	*i/s*	*(i/s)*	
Multivitamins	*i/s*	*(i/s)*	*o/s*
Normal Saline 1L	*i/s*	*i/s*	*(i/s)*
Nystatin suspension, 100,000IU/ml, 20 mL	*i/s*	*i/s*	*(i/s)*
Oral rehydration salts, packet	*o/s*	*i/s*	*(i/s)*
Oxytocin 10 IU/ml, injection 1ml	*(i/s)*	*(i/s)*	
Paracetamol syrup 120mg/5mL	*(i/s)*	*i/s*	*(i/s)*
Paracetamol, tablets 500mg	*i/s*	*i/s*	*(i/s)*
Pethidine HCl 50mg/1ml, injection 2ml	*o/s*	*(i/s)*	
Phenobarbitone sodium, 200mg/ml, 1ml	*o/s*	*(i/s)*	
Phenobarbitone, tablets 30mg	*(i/s)*	*i/s*	*i/s*
Phenoxymethylpenicillin, tablets, 250mg	*i/s*	*i/s*	*(i/s)*
Povidone iodine solution 10%	*(i/s)*	*(i/s)*	
Praziquantel 600mg	*(i/s)*	*i/s*	*(i/s)*

Prednisolone, tablet 5mg	*(i/s)*	*i/s*	
Quinine dihydrochloride 300mg/mL, 2mL	*i/s*	*i/s*	*(i/s)*
Quinine sulphate, tablets 300mg	*o/s*	*i/s*	*i/s*
Salbutamol 0.5mg/ml, vial 1 ml	*o/s*		
Sodium lactate compound (Ringer's lactate), 1000ml	*i/s*	*i/s*	*i/s*
Sulphadoxine 500mg / pyrimethamine 25mg (SP)	*i/s*	*i/s*	*i/s*
Suxamthonium 50 mg/ml, injection 2ml	*(i/s)*	*i/s*	
Syntometrine injection (Ergometrine 0.5mg)	*o/s*	*i/s*	*(i/s)*
Tetanus antitoxin injection, 1500 IU	*o/s*	*o/s*	*o/s*
Tetracycline, eye ointment 1%	*o/s*	*(i/s)*	*o/s*
Thiopentone sodium, 500mg, PFR	*i/s*	*i/s*	
Vitamin A, tablets 100,000 IU	*o/s*		*(i/s)*
Vitamin A, tablets 200,000 IU	*o/s*		*(i/s)*
Water for injection, 10ml	*i/s*	*i/s*	*(i/s)*
Whitfield	*i/s*	*(i/s)*	*(i/s)*

Annex: PH 9 b
Drug Availability for the EHPs

i/s – in stock (i/s) – at some facilities in stock o/s – out of stock

grey shaded areas = areas of concern where drug availability does not satisfy the EHPs

Vaccine Preventable Diseases

Description of Intervention	Input Code	Description of treatment line	Available at Regional Level	Available at Hospital Level	Available at HC Level
BCG vaccination	D	BCG vaccine, vial with diluent			
Oral polio vaccination	D	Polio vaccine, oral			
DPT vaccination	D	DPT - Hep B + HiB vaccine, vial			
Measles vaccination	D	Measles vaccine			
Measles treatment	D	Vitamin A, tablets 200,000 IU	*o/s*		*(i/s)*
Measles treatment	D	Paracetamol syrup 120mg/5mL	*(i/s)*	*i/s*	*(i/s)*
Measles treatment	D	Paracetamol, tablets 500mg	*i/s*	*i/s*	*(i/s)*
Measles treatment	D	Tetracycline, eye ointment 1%	*o/s*	*(i/s)*	*o/s*
Complicated measles	D	Paracetamol syrup 120mg/5mL	*(i/s)*	*i/s*	*(i/s)*
Complicated measles	D	Vitamin A, tablets 200,000 IU	*o/s*		*(i/s)*
Complicated measles	D	Tetracycline, eye ointment 1%	*o/s*	*(i/s)*	*o/s*
Complicated measles	D	Cotrimoxazole, tablets 480mg	*i/s*	*i/s*	*i/s*
Complicated measles	D	Benzylpenicillin 1g (1MU), PFR	*o/s*	*o/s*	*o/s*
Complicated measles	D	Amoxycillin, tablets 250mg	*(i/s)*	*(i/s)*	*(i/s)*
Complicated measles	D	Chloramphenicol succinate, injection 1g, PFR	*i/s*	*i/s*	*i/s*
Complicated measles	D	Chloramphenicol, tablets 250mg	*i/s*	*i/s*	*o/s*
Complicated measles	D	Dextrose (glucose) 5%, 1000mL	*i/s*	*i/s*	*(i/s)*
Complicated measles	D	Gentian violet paint, aqueous 1%	*(i/s)*	*i/s*	*(i/s)*

ARI

Description of Intervention	Input Code	Description of treatment line	Available at Regional Level	Available at Hospital Level	Available at HC Level
Case management of ARI in under-5s	D	Cotrimoxazole, tablets 480mg	*i/s*	*i/s*	*i/s*
Case management of ARI in under-5s	D	Paracetamol, tablets 500mg	*i/s*	*i/s*	*(i/s)*
Case management of ARI in under-5s	D	Benzylpenicillin 1g (1MU), PFR	*o/s*	*o/s*	*o/s*
Case management of ARI in under-5s	S	Water for injection, 10ml	*i/s*	*i/s*	*(i/s)*
Case management of ARI in under-5s	D	Gentamicin 10 mg/ml, injection 2ml	*o/s*		
Case management of ARI in under-5s	D	Paracetamol syrup 120mg/5mL	*(i/s)*	*i/s*	*(i/s)*
Case management of ARI in under-5s	D	Amoxycillin, capsules 250mg	*(i/s)*	*(i/s)*	*(i/s)*
Case management of ARI in under-5s	D	Chloramphenicol succinate, injection 1g	*i/s*	*i/s*	*i/s*
Case management of ARI in under-5s	D	Dextrose (glucose) 5%, 1000mL	*i/s*	*i/s*	*(i/s)*

Malaria

Description of Intervention	Input Code	Description of treatment line	Available at Regional Level	Available at Hospital Level	Available at HC Level
Case management, under 5	D	Sulphadoxine 500mg / pyrimethamine 25mg (SP)	*i/s*	*i/s*	*i/s*

Case management, under 5	D	Quinine sulphate, tablets 300mg	*o/s*	*i/s*	*i/s*
Case management, under 5	D	Paracetamol, tablets 500mg	*i/s*	*i/s*	*(i/s)*
Case management, under 5	D	Quinine dihydrochloride 300mg/mL, 2mL	*i/s*	*i/s*	*(i/s)*
Case management, under 5	S	Water for injection, 10ml	*i/s*	*i/s*	*(i/s)*
Case management, under 5	D	Oral rehydration salts, packet	*o/s*	*i/s*	*(i/s)*
Case management, under 5	D	Dextrose (glucose) 5%, 1000mL	*i/s*	*i/s*	*(i/s)*
Case management, under 5	D	Diazepam 5mg/ml, injection 2ml	*o/s*	*(i/s)*	*(i/s)*
Case management, under 5	D	Phenobarbitone sodium, 200mg/ml, 1ml	*o/s*	*(i/s)*	
Case management, under 5	D	Phenobarbitone, tablets 30mg	*(i/s)*	*i/s*	*i/s*
Case management, under 5	D	Dextrose 50%, 20mL	*(i/s)*	*i/s*	*(i/s)*
Case management, under 5	D	Ferrous salt 200mg folic acid 500 µg	*(i/s)*	*(i/s)*	*(i/s)*
Case management, under 5	D	Folic acid, tablet 5mg	*i/s*	*(i/s)*	
Case management, under 5	D	Chloramphenicol succinate, injection 1g, PFR	*i/s*	*i/s*	*i/s*
Case management, under 5	D	Chloramphenicol, tablets 250mg	*i/s*	*i/s*	
Case management, under 5	D	Benzylpenicillin 1g (1MU), PFR	*o/s*	*o/s*	*o/s*
Case management, five and over	D	Sulphadoxine 500mg / pyrimethamine 25mg (SP)	*i/s*	*i/s*	*i/s*
Case management, five and over	D	Aspirin, tablets 300mg	*i/s*	*i/s*	*i/s*
Case management, five and over	D	Paracetamol, tablets 500mg	*i/s*	*i/s*	*(i/s)*
Case management, five and over	D	Quinine sulphate, tablets 300mg	*o/s*	*i/s*	*i/s*
Case management, five and over	D	Quinine dihydrochloride 300mg/mL, 2mL	*i/s*	*i/s*	*(i/s)*
Case management, five and over	D	Dextrose (glucose) 5%, 1000mL	*i/s*	*i/s*	*(i/s)*
Case management, five and over	D	Diazepam 5mg/ml, injection 2ml	*o/s*	*(i/s)*	*(i/s)*
Case management, five and over	D	Phenobarbitone sodium, 200mg/ml, 1ml	*o/s*	*(i/s)*	
Case management, five and over	D	Ferrous salt 200mg folic acid 500 µg	*(i/s)*	*(i/s)*	*(i/s)*
Case management, five and over	D	Folic acid, tablet 5mg	*i/s*	*(i/s)*	

Adverse Maternal and Neonatal outcomes

Description of Intervention	Input Code	Description of treatment line	Available at Regional Level	Available at Hospital Level	Available at HC Level
Antenatal care	D	Tetanus antitoxin injection, 1500 IU	*o/s*	*o/s*	*o/s*
Antenatal care	D	Ferrous salt 200mg folic acid 500 µg	*(i/s)*	*(i/s)*	*(i/s)*
Antenatal care	D	Sulphadoxine 500mg / pyrimethamine 25mg (SP)	*i/s*	*i/s*	*i/s*
Normal delivery	D	Syntometrine injection (Ergometrine 0.5mg)	*o/s*	*i/s*	*(i/s)*
Normal delivery	D	Vitamin A, tablets 200,000 IU	*o/s*		*(i/s)*
Normal delivery	D	Paracetamol, tablets 500mg	*i/s*	*i/s*	*(i/s)*
Normal delivery	D	Tetracycline, eye ointment 1%	*o/s*	*(i/s)*	*o/s*
Normal delivery	D	*Lidocaine 2%, injection 50ml*	*o/s*	*(i/s)*	*(i/s)*
PPH	D	Syntometrine injection (Ergometrine 0.5mg)	*o/s*	*i/s*	*(i/s)*
PPH	D	Paracetamol, tablets 500mg	*i/s*	*i/s*	*(i/s)*
PPH	S	Sodium lactate compound (Ringer's lactate), 1000ml	*i/s*	*i/s*	*i/s*
PPH	D	Ampicillin, injection 1g (0.5g)	*o/s*	*(i/s)*	
PPH	D	Diazepam 5mg/ml, injection 2ml	*o/s*	*(i/s)*	*(i/s)*
PPH	D	Doxycycline, tablet 100mg	*(i/s)*	*i/s*	*(i/s)*
PPH	D	Gentamycin 40 mg/ml, injection 2ml	*o/s*	*i/s*	
PPH	D	Lidocaine 1%, injection 50 ml	*o/s*	*o/s*	*o/s*
PPH	D	Metronidazole 5mg/ml, injection 100ml	*(i/s)*	*i/s*	

PPH	D	Pethidine HCl 50mg/1ml, injection 2ml	*o/s*	*(i/s)*	
PPH	D	Suxamthonium 50 mg/ml, injection 2ml	*(i/s)*	*i/s*	
PPH	D	Thiopental, injection 1g	*i/s*	*i/s*	
PPH	S	Water for injection, 5ml	*i/s*	*i/s*	*(i/s)*
Eclampsia	D	Diazepam 5mg/ml, injection 2ml	*o/s*	*(i/s)*	*(i/s)*
Eclampsia	D	Hydralazine hydrochloride 20mg/mL, 1mL	*(i/s)*	*i/s*	
Eclampsia	D	Dextrose (glucose) 5%, 1000mL	*i/s*	*i/s*	*(i/s)*
Eclampsia	S	Oxytocin 10 IU/ml, injection 1ml	*(i/s)*	*(i/s)*	
Eclampsia	D	Salbutamol 0.5mg/ml, vial 1 ml	*o/s*		
Eclampsia	D	Thiopentone sodium, 500mg, PFR	*i/s*	*i/s*	
Eclampsia	D	Suxamethonium chloride 50mg/ml, inj 2ml	*(i/s)*	*i/s*	
Eclampsia	D	*Povidone iodine solution 10%*	*(i/s)*	*(i/s)*	
Eclampsia	D	Benzylpenicillin 1g (1MU), PFR	*o/s*	*o/s*	*o/s*
Eclampsia	D	Chloramphenicol, tablets 250mg	*i/s*	*i/s*	
Eclampsia	D	Pethidine HCl 50mg/1ml, injection 2ml	*o/s*	*(i/s)*	
Eclampsia	D	Paracetamol, tablets 500mg	*i/s*	*i/s*	*(i/s)*
Obstructed labour	D	Sodium lactate compound (Ringer's lactate), 1000ml	*i/s*	*i/s*	*i/s*
Obstructed labour	D	Thiopentone sodium, 500mg, PFR	*i/s*	*i/s*	
Obstructed labour	D	Suxamethonium chloride 50mg/ml, inj 2ml	*(i/s)*	*i/s*	
Obstructed labour	D	*Lidocaine 2%, injection 50ml*	*o/s*	*(i/s)*	*(i/s)*
Obstructed labour	D	Dextrose (glucose) 5%, 1000mL	*i/s*	*i/s*	*(i/s)*
Obstructed labour	D	*Povidone iodine solution 10%*	*(i/s)*	*(i/s)*	
Obstructed labour	D	Chloramphenicol succinate, injection 1g, PFR	*i/s*	*i/s*	*i/s*
Obstructed labour	D	Oxytocin 10 IU/ml, injection 1ml	*(i/s)*	*(i/s)*	
Obstructed labour	D	Pethidine HCl 50mg/1ml, injection 2ml	*o/s*	*(i/s)*	
Obstructed labour	D	Paracetamol, tablets 500mg	*i/s*	*i/s*	*(i/s)*
Severe Anaemia	D	Ferrous salt 200mg folic acid 500 µg	*(i/s)*	*(i/s)*	*(i/s)*
Severe Anaemia	D	Folic acid, tablet 5mg	*i/s*	*(i/s)*	
Sepsis	D	Paracetamol, tablets 500mg	*i/s*	*i/s*	*(i/s)*
Sepsis	D	Benzylpenicillin 3g (5MU), PFR	*o/s*	*i/s*	
Sepsis	D	Syntometrine injection (Ergometrine 0.5mg)	*o/s*	*i/s*	*(i/s)*
Sepsis	D	Dextrose (glucose) 5%, 1000mL	*i/s*	*i/s*	*(i/s)*
Sepsis	D	Sodium lactate compound (Ringer's lactate), 1000ml	*i/s*	*i/s*	*i/s*
Sepsis	D	*Gelatin (as polygeline) 500mL pack iv*	*o/s*	*(i/s)*	
Sepsis	D	Metronidazole, tablets 250mg	*i/s*	*(i/s)*	
Sepsis	D	Chloramphenicol, tablets 250mg	*i/s*	*i/s*	
Sepsis	D	Metronidazole 5mg/ml, 100ml	*(i/s)*	*i/s*	
Sepsis	D	Chloramphenicol succinate, injection 1g, PFR	*i/s*	*i/s*	*i/s*
Sepsis	D	Gentamicin 40 mg/ml, injection 2ml	*o/s*	*i/s*	
Abortion Complications	D	Sodium lactate compound (Ringer's lactate), 1000ml	*i/s*	*i/s*	*i/s*
Abortion Complications	D	Plasma expander 500mls	*o/s*	*(i/s)*	
Abortion Complications	D	Syntometrine, 1mls, IM	*o/s*	*i/s*	*(i/s)*
Abortion Complications	D	Paracetamol, tablets 500 mg	*i/s*	*i/s*	*(i/s)*
Abortion Complications	D	Metronidazole IV, 500mg	*(i/s)*	*i/s*	
Abortion Complications	D	Chloramphenicol IV 1g	*i/s*	*i/s*	*i/s*
Abortion Complications	D	Benzylpenicillin 1 MU IV	*o/s*	*o/s*	*o/s*
Abortion Complications	D	Normal Saline 1L	*i/s*	*i/s*	*(i/s)*
Abortion Complications	D	Dextrose 1L	*i/s*	*i/s*	*(i/s)*

Abortion Complications	D	Ringers Lactate 1L	*i/s*	*i/s*	*i/s*
Abortion Complications	D	Metronidazole, tablets 200 mg	*o/s*	*i/s*	
Abortion Complications	D	Chloramphenicol tablets 250- mg	*i/s*	*i/s*	
Abortion Complications	D	Gentamicin, 80 mg IV	*o/s*	*i/s*	
Abortion Complications	D	Diazepam, injection 10 mg	*o/s*	*(i/s)*	*(i/s)*
Abortion Complications	D	Ketamine, injection 100mg	*i/s*	*i/s*	
Abortion Complications	D	Pethidine, injection 50 mg	*o/s*	*(i/s)*	
Abortion Complications	D	Cetrimide 5L	*o/s*	*(i/s)*	*(i/s)*
Abortion Complications	D	Oxytocin, IV,10 IU	*(i/s)*	*(i/s)*	
Abortion Complications	D	Lidocaine, injection 2%	*o/s*	*(i/s)*	*(i/s)*
Abortion Complications	D	Povidone iodine solution 10%	*(i/s)*	*(i/s)*	
Abortion Complications	D	Thiopental, injection 1 g	*i/s*	*i/s*	
Abortion Complications	D	Suxamthonium 50 mg/ml, injection 2 ml	*(i/s)*	*i/s*	
Abortion Complications	D	Pethidine HCl 50mg/1ml, injection 2ml	*o/s*	*(i/s)*	
Abortion Complications	D	Syntometrine, IM 5 Muiv	*o/s*	*i/s*	*(i/s)*
Abortion Complications	D	Atropine 1ml	*(i/s)*	*i/s*	*(i/s)*
Newborn Complications	D	Benzylpenicillin 1g (1MU), PFR	*o/s*	*o/s*	*o/s*
Newborn Complications	D	Gentamicin 10 mg/ml, injection 2ml	*o/s*		
Newborn Complications	D	Erythromycin syrup, 125mg/5mL	*o/s*	*i/s*	*(i/s)*
Newborn Complications	D	Dextrose (glucose) 5%, 1000mL	*i/s*	*i/s*	*(i/s)*
Treatment of syphilis in pregnancy	D	Benzathine benzylpenicillin 1.44g inj. 2.4M IU	*(i/s)*	*i/s*	
Treatment of syphilis in pregnancy	S	Water for injection, 5ml	*i/s*	*i/s*	*(i/s)*
Treatment of syphilis in pregnancy	D	Erythomycin, capsule 250mg	*i/s*	*i/s*	
Treatment of syphilis in pregnancy	D	Benzathine benzylpenicillin 1.44g inj. 2.4M IU	*(i/s)*	*i/s*	
Treatment of syphilis in pregnancy	D	Erythromycin syrup, 125mg/5mL	*(i/s)*	*i/s*	
PPC	D	Vitamin A, tablets 200,000 IU	*o/s*		*(i/s)*
PPC	D	Ferrous salt 200mg folic acid 500 µg	*(i/s)*	*(i/s)*	*(i/s)*
Norplant	D	Paracetamol, tablets 500mg	*i/s*	*i/s*	*(i/s)*
IUD	D	Paracetamol, tablets 500mg	*i/s*	*i/s*	*(i/s)*
IUD	D	Cetramine, 5L	*o/s*	*(i/s)*	*(i/s)*
BTL	D	*Lidocaine 2%, injection 50ml*	*o/s*	*(i/s)*	*(i/s)*
BTL	D	*Povidone iodine solution 10%*	*(i/s)*	*(i/s)*	
BTL	D	Cetramine, 5L	*o/s*	*(i/s)*	*(i/s)*
BTL	D	Paracetamol, tablets 500mg	*i/s*	*i/s*	*(i/s)*
Vasectomy	D	*Lidocaine 2%, injection 50ml*	*o/s*	*(i/s)*	*(i/s)*
Vasectomy	D	*Povidone iodine solution 10%*	*(i/s)*	*(i/s)*	
Vasectomy	D	Cetramine, 5L	*o/s*	*(i/s)*	*(i/s)*
Vasectomy	D	Paracetamol, tablets 500mg	*i/s*	*i/s*	*(i/s)*

ADD

Description of Intervention	Input Code	Description of treatment line	Available at Regional Level	Available at Hospital Level	Available at HC Level
Treatment of dehydration in under-5s	D	Oral rehydration salts, packet	*o/s*	*i/s*	*(i/s)*

Treatment of dehydration in under-5s	D	Ringers Lactate, 1L	*i/s*	*i/s*	*i/s*
Case management of Cholera	D	ORS	*o/s*	*i/s*	*(i/s)*
Case management of Cholera	D	Ringers Lactate, 1L	*i/s*	*i/s*	*i/s*
Case management of Cholera	D	Erythomycin, capsule 250mg	*i/s*	*i/s*	
Case management of Cholera	D	Doxycycline, tablet 100mg	*(i/s)*	*i/s*	
Case management of dystentery	D	Nalidixic Acid	*(i/s)*	*i/s*	*(i/s)*

STIs and HIV/AIDs

Description of Intervention	Input Code	Description of treatment line	Available at Regional Level	Available at Hospital Level	Available at HC Level
Management of opportunistic infections	D	Paracetamol, tablets 500mg	*i/s*	*i/s*	*(i/s)*
Management of opportunistic infections	D	Oral rehydration salts, packet	*o/s*	*i/s*	*(i/s)*
Management of opportunistic infections	D	Nystatin suspension, 100,000IU/ml, 20 mL	*i/s*	*i/s*	*(i/s)*
Management of opportunistic infections	D	Cetramine, 5L	*o/s*	*(i/s)*	*(i/s)*
Management of opportunistic infections	D	Calamine lotion	*(i/s)*	*(i/s)*	*(i/s)*
Management of opportunistic infections	D	Gentian violet paint, aqueous 1%	*(i/s)*	*i/s*	*(i/s)*
Management of opportunistic infections	D	Aspirin, tablets 300mg	*i/s*	*i/s*	*i/s*
Management of opportunistic infections	D	Whitfield	*i/s*	*(i/s)*	*(i/s)*
Management of opportunistic infections	D	Cotrimoxazole, tablets 480mg	*i/s*	*i/s*	*i/s*
Management of opportunistic infections	D	Metronidazole, tablets 250mg	*i/s*	*(i/s)*	
Management of opportunistic infections	D	Prednisolone, tablet 5mg	*(i/s)*	*i/s*	
Management of opportunistic infections	D	Darrows, half strength, IV fluid	*(i/s)*	*(i/s)*	*o/s*
Management of opportunistic infections	D	Sodium lactate compound (Ringer's lactate), 1000ml	*i/s*	*i/s*	*i/s*
Management of opportunistic infections	D	Chloramphenicol succinate, injection 1g, PFR	*i/s*	*i/s*	*i/s*
Management of opportunistic infections	D	Benzathine benzylpenicillin 1.44g inj. 2.4M IU	*(i/s)*	*i/s*	
Treatment of Syphillis	D	Benzathine penicillin, 2.4MU, inj	*(i/s)*	*i/s*	
Treatment of Syphillis	S	Distilled water, injection 5ml	*i/s*	*i/s*	*(i/s)*
Treatment of Syphillis	D	Doxycycline, 100mg	*(i/s)*	*i/s*	*(i/s)*
Testing and treatment of other STIs	D	Erythomycin, capsule 250mg	*i/s*	*i/s*	
Testing and treatment of other STIs	D	Benzathine benzylpenicillin 1.44g inj. 2.4M IU, PFR	*(i/s)*	*i/s*	
Testing and treatment of other STIs	D	Doxycycline, tablet 100mg	*(i/s)*	*i/s*	*(i/s)*
Testing and treatment of other STIs	D	Aspirin, tablets 300mg	*i/s*	*i/s*	*i/s*
Testing and treatment of other STIs	S	Gentamicin 40 mg/ml, injection 2ml	*o/s*	*i/s*	
Testing and treatment of other STIs	D	Metronidazole, tablets 250mg	*i/s*	*(i/s)*	
Testing and treatment of other STIs	D	Nystatin suspension, 100,000IU/ml, 20 mL	*i/s*	*i/s*	*(i/s)*
Testing and treatment of other STIs	D	Gentian violet paint, aqueous 1%	*(i/s)*	*i/s*	*(i/s)*
Home Based Care	D	Paracetamol, tablets 500mg	*i/s*	*i/s*	*(i/s)*

Home Based Care	D	Aspirin, tablets 300mg	*i/s*	*i/s*	*i/s*
Home Based Care	D	Vitamin A, tablets 200,000 IU	*o/s*		*(i/s)*
Home Based Care	D	Ferrous salt 200mg folic acid 500 µg	*(i/s)*	*(i/s)*	*(i/s)*
Home Based Care	D	Gentian violet paint, aqueous 1%	*(i/s)*	*i/s*	*(i/s)*
Home Based Care	D	Calamine lotion	*(i/s)*	*(i/s)*	*(i/s)*
Home Based Care	D	Oral rehydration salts, packet	*o/s*	*i/s*	*(i/s)*
Home Based Care	D	Whitefield	*i/s*	*(i/s)*	*(i/s)*
Home Based Care	D	Cetramine, 5L	*o/s*	*(i/s)*	*(i/s)*
Home Based Care	D	Benzyl benzoate application 25%	*i/s*	*i/s*	*(i/s)*
Home Based Care	D	Sulphadoxine 500mg / pyrimethamine 25mg (SP)	*i/s*	*i/s*	*i/s*

Schistosomiasis

Description of Intervention	Input Code	Description of treatment line	Available at Regional Level	Available at Hospital Level	Available at HC Level
Diagnosis and case management	D	Praziquantel 600mg	*(i/s)*	*i/s*	*(i/s)*
Mass treatment	D	Praziquantel 600mg	*(i/s)*	*i/s*	*(i/s)*
Mass treatment	D	Albendazole, tablets 200mg	*(i/s)*	*i/s*	*(i/s)*

Nutrition

Description of Intervention	Input Code	Description of treatment line	Available at Regional Level	Available at Hospital Level	Available at HC Level
Micronutrient supplementation	D	Vitamin A, tablets 200,000 IU	*o/s*		*(i/s)*
Micronutrient supplementation	D	Vitamin A, tablets 100,000 IU	*o/s*		*(i/s)*
Nutritional rehabilitation for under 5s	D	Gentian violet paint, aqueous 1%	*(i/s)*	*i/s*	*(i/s)*
Nutritional rehabilitation for under 5s	D	Multivitamins	*i/s*	*(i/s)*	*o/s*
Nutritional rehabilitation for under 5s	D	Cotrimoxizole, 480mg	*i/s*	*i/s*	*i/s*
Nutritional rehabilitation for under 5s	D	Vitamin A capsule	*o/s*		*(i/s)*
Nutritional rehabilitation for under 5s	D	Albendazole, tablets 200mg	*(i/s)*	*i/s*	*(i/s)*
Nutritional rehabilitation for under 5s	D	Ferrous Sulphate	*(i/s)*	*(i/s)*	*o/s*

Eye, Ear and Skin Conditions

Description of Intervention	Input Code	Description of treatment line	Available at Regional Level	Available at Hospital Level	Available at HC Level
Treatment of conjunctivitis	D	Tetracycline, eye ointment 1%	*i/s*	*i/s*	*(i/s)*
Treatment of conjunctivitis	D	Paracetamol, tablets 500mg	*i/s*	*i/s*	*(i/s)*
Treatment of acute otitis media in children	D	Paracetamol, tablets 500mg	*i/s*	*i/s*	*(i/s)*
Treatment of acute otitis media in children	D	Cotrimoxazole, tablets 480mg	*i/s*	*i/s*	*i/s*
Treatment of scabies	D	Benzyl benzoate application 25%	*i/s*	*i/s*	*(i/s)*
Treatment of scabies	D	Erythomycin, capsule 250mg	*i/s*	*i/s*	

Common Injuries

Description of Intervention	Input Code	Description of treatment line	Available at Regional Level	Available at Hospital Level	Available at HC Level
Treatment of fractures and dislocations	D	Paracetamol, tablets 500mg	*i/s*	*i/s*	*(i/s)*
Treatment of fractures and dislocations	D	Pethidine HCl 50mg/1ml, injection 2ml	*o/s*	*(i/s)*	
Treatment of fractures and dislocations	D	Ketamine HCl, injection 50mg/ml, 10mL	*i/s*	*i/s*	
Treatment of fractures and dislocations	D	Diazepam 5mg/ml, injection 2ml	*o/s*	*(i/s)*	*(i/s)*
Treatment of fractures and dislocations	D	Sodium lactate compound (Ringer's lactate), 1000ml	*i/s*	*i/s*	*i/s*
Treat of wounds	D	*Lidocaine 1%, injection 50ml*	*o/s*	*o/s*	*o/s*
Treat of wounds	D	Phenoxymethylpenicillin, tablets, 250mg	*i/s*	*i/s*	*(i/s)*
Treat of wounds	D	Cetramide	*o/s*	*(i/s)*	*(i/s)*
Treat of wounds	D	Paracetamol, tablets 500mg	*i/s*	*i/s*	*(i/s)*
Treat of wounds	D	Povidone Iodine, Solution	*(i/s)*	*(i/s)*	
Treat of wounds	D	TTV injection 10mls	*o/s*	*o/s*	*o/s*
Treat of wounds	D	Amoxycillin, capsules 250mg	*(i/s)*	*(i/s)*	*(i/s)*
Treat of wounds	D	Chloramphenicol succinate, injection 1g, PFR	*i/s*	*i/s*	*i/s*
Treat of wounds	D	Metronidazole, tablets 250mg	*i/s*	*(i/s)*	
Treat of wounds	D	Ketamine HCl, injection 50mg/ml, 10mL	*i/s*	*i/s*	
Treat of wounds	D	Diazepam 5mg/ml, injection 2ml	*o/s*	*(i/s)*	*(i/s)*
Treat of wounds	D	Pethidine HCl 50mg/1ml, injection 2ml	*o/s*	*(i/s)*	

ANNEX 8 - Human Resources

MALAWI HEALTH SWAP MID-TERM REVIEW

HUMAN RESOURCES REPORT

Author: Tim Martineau, LATH

1. Introduction

The current status of human resources in the health sector in Malawi is the result of a number of different initiatives, investment programmes and other influences -- both positive and negative. A brief history is provided here so that the progress against the POW can be seen in the context of these initiatives/changes.

> Under investment and policy initiatives in the late 1990s had led to the closure of training courses and whole institutions, resulting in a serious reduction in the supply of mid-level health workers. By 1999, when a human resources plan[32] was being developed as part of the wider Fourth National Health Plan, people were openly talking about a health worker crisis. This was followed by the development of financing plan in 2000[33] and investments of HIPC funds and GTZ to start to reopen some of the training centres. A formal 6-year Pre-service Training Plan was developed and financed in 2002. In the following years the Ministry of health developed and in 2004 launched the Health Sector-wide Approach (SWAp) Joint to Programme of Work which is the subject of this review. The first of the six pillars supporting the newly designed Essential Health Programme is human resources. The programme of work for the human resource pillar incorporated the existing 6-year Pre-service Training Plan. Whilst the training output was set to increase, the publicly funded health sector was rapidly losing existing staff. Several development partners have responded to the worsening human resource situation, including UK's Department for International Development (DFID) which, unusually for a development partner DFID, agreed to invest over £50 million in the staff salaries as part of the wider government medium-term pay reform programme. This funding made a significant contribution to the 6-year Emergency Human Resource Programme[34]: 2004-2010 (EHRP) and was largely used to fund a 52% top up of salaries for 11 categories of health worker. In 2006 the government of Malawi signed grant agreements with the Global Fund for $34 million (Round 1) and $65.5 million (Round 5). These grants cover increasing staff (HSAs, nurses, doctors and clinical officers); building capacity of laboratory staff; increasing the number of senior tutors and support facility expansion/rehabilitation and improving the quality of training; recruiting of nurses, clinical officers and doctors; and improving staff retention.

The government's medium-term pay reform programme led first to the consolidation of housing allowance into basic pay in 2004 and then to the consolidation of all allowances (including the 52% top-up) into a new pay scale and significant pay increases[35] were introduced in February 2006, and again in July 2007. These key events are shown in the time line diagram in Annex 3.

The purpose of this annex to the main report of the Mid-term Review is to assess progress and achievements in the implementation of Pillar 1 of the POW on Human Resources. The following questions, based on the TOR, were given for guidance:

How appropriate are the staffing norms in the POW by level of service delivery?
How well do current staffing levels fit with the HR requirements in the health sector?
How equitably are human resources distributed throughout the country?
What is the projected HR need for the remaining period of the POW, when considered against the HR strategic plan?
What progress has been made in setting up the HRMIS for tracking HR for health?
How appropriate and effective is the package of incentives provided to HWs?
How well are training and deployment policies being institutionalised throughout the health sector?
How appropriate and effective is the support being given to training institutions?
How well is training progressing towards meeting targets?
How likely is it that targets will be achieved for the 6-year training plan and the Emergency Human Resource Programme?

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[32] Ministry of Health and Population (1999). Malawi National Health Plan 1999-2004: Volume 3 - Health Sector Human Resources Plan. Lilongwe, Government of Malawi.
[33] Project Financing Proposal for Human Resource Development in the Health Sector (March 2000)
[34] Originally called the Human Resource Relief Programme
[35] For most grades of staff

These questions are covered to the extent possible, but have been answered in the context of a wider structure which concentrates more on systems and strategies. The reviewer has tried to keep in mind the broadest interpretation of human resources[36] across the whole sector, though the majority of information available is on the formal sector and within that, the major employer which is the MoH. This report is not an attempt to provide a definitive situational analysis of the human resource situation. This has been done in other documents and will be provided in the annual review produced by the Ministry of Health.

The report is structured as follows: a brief methodology is presented. The findings are presented in four sections: 1) The increases in the recruitment and retention and improvement in distribution of staff. 2) Performance 3) HR policies and systems 4) Technical Assistance. Following this a summary of answers to the questions given above is provided. These findings are then reviewed in an analysis and discussion section. Finally a brief conclusion is provided with some key recommendations for moving forward.

2. Methods

The questions listed above were used to guide this review. The very up-to-date and detailed Needs Assessment Study[37] which reviews the situation of human resources in the health sector in detail was used as the basis of further data collection which was intended to seek further clarification and verification but in most cases there was no need to update the data. Other reports on human resources were reviewed in conjunction with documents on the broader SWAp and EHP. Several key draft human resource planning and policy documents were reviewed. Documents consulted are listed in Annex 2.

A series of interviews were carried out with key staff in the Ministry of health, other government offices, training institutions and development partners. Discussions with staff and TA in the HRM Section took place intermittently over the three-week period. Three separate field visits outside Lilongwe were made which covered health facilities from Central Hospital to health centre, the zonal and district levels of management and the College of Medicine. A list of visits, meetings and people interviewed is given in Annex 1.

The coexistence of a number of different plans made it is sometimes a little difficult to know what exactly was in the POW and what not. So the review against the POW may not always come out clearly. In addition, the complexity of the relationships between different actors both within the MoH and with other swap partners means that there is often no single interpretation of past events. Although many people were met and a number of different facilities visited, this is only a small sample of what is going on across the country. Therefore views are necessarily impressionistic but are given in good faith as a means of strengthening the POW for the remaining part of the plan period.

3. Findings

The answers to the questions derived from the terms of reference par given in the text below but summarised in a table at the end of this section for the sake of clarity.

3.1 Increasing the recruitment and retention of staff

The number of formally employed staff available for providing services in the health sector is determined by a number of linked steps (see flow diagram in Annex 4): 1) the number of suitably qualified school leavers choosing to enter training for health or allied professions; 2) the number of students who successfully graduate; 3) the number of graduates (new graduates, and those who are returning from working elsewhere and foreign graduates) who are willing and able to enter the labour market, and of those the number that enter the health sector and 4) the subsequent losses to the sector. The labour market will determine how

[36] This is inclusive of support staff -- managers, accountants, drivers, etc; and in some cases may include non-formal contributors to health service delivery e.g. community-based distributors or community health workers.

[37] Ministry of Health, Malawi Health SWAp Donor Group, et al. (2007). Human resources/ capacity development within the health sector. Needs assessment study. Final report - June 2007.

staff are distributed within the sector. Given the shortage of skilled health workers[38] they are in a position to choose employers. The choice of employer is only an issue if the organisation is not contributing fully to achieving the objectives of the SWAp. Within the organisations of the major employers – especially the MoH, there is also currently an *internal* labour market as staff can be transferred by management or at their own request to facilities within the country. The equitable distribution of staff has an impact on the equity of access to services. Since the POW addresses all these areas, this is a useful framework for reporting on progress.

School leavers entering training for health professions

The training intake numbers depend on the number of school leavers willing, suitably qualified and financially supported (through scholarships or self-funding) to enter the training (*demand*) and the number of training places available (*supply*).

Demand for training

Despite the low enrolment rates at secondary level[39] in general there seems to be a sufficient supply of school leavers wishing to enter training for health professions to support the challenging training targets in the EHRP. A contributing factor is the very loose labour market[40] and, the impact of pay increases and special allowances for health professionals (discussed in more detail below). For example, the Malawi College of Health Sciences has also had large numbers of applications with over 10,000 applications for 400 places in 2005/6[41]; this increased to about 20,000 for the 2007 intake. In some cases this increase is due to the opening of nurse training to male applicants. The principal of one college training nurse technicians reported that the student intake for this year was more than 75% male (9/41). The explanation from several sources was that boys tend to do better in sciences, an important entry criteria, than girls. There is a recognition that this imbalance may be problematic and some institutions have tried to use quotas – in some cases unsuccessfully - favouring female applicants.

The College of Medicine MBBS programme, which has the most challenging entry qualifications, is also managing to increase recruitment in line with EHRP targets -- though with some delays. This would not be possible without the two-year pre-med[42] course that brings students up to a sufficient standard, particularly in the sciences, to meet the entry criteria. There is currently funding from the MoH using SWAp funds and 20 places are supported by the Global Fund, but otherwise the course is self-funding with no support from the University. Without continued funding the Principal estimated that there would only be about 20 sufficiently qualified applicants for the MBBS course (for which the target for 2010 is 60).

Supply of training places

Training institutes have been able to expand their capacity to meet the additional demand, in line with ERHP targets largely because of the increased number of tutors available and in some cases the expansion of infrastructure, in particular teaching space and accommodation. Table 1 shows some significant gains against the POW targets.

[38] In contrast to jobs that are not sector-specific and in shortage like administrators, drivers, etc

[39] Net secondary enrolment ratio is 25% of children (at that age). Source: Human Development report 2006

[40] No unemployment figures were found to verify this, but this fact seems to be generally accepted.

[41] Malawi College of Health Sciences. External Evaluation Report: 1-5 August 2005 [updated figure]

[42] This also supports entrants into the BSc Pharmacy and MLT courses

Table 1: Annual enrolment in Malawian health training institutions in 2003 and 2006

Pre-service annual enrolment in Training Institutions 2003 and 2006						
	All institutions			POW TARGET		
BASIC COURSES Cadre	Actual 2004	Capacity 2006	Actual 2006		% increase from 2004	% of POW target by 2006
Dip. in Clinical Medicine (Clinical Officer)	55	100	100	75	82%	133%
Cert. in Clinical Medicine	49	110	74	125	51%	59%
Diploma in Dental Therapy	15	20	35	35	133%	100%
Dip. in Environmental Health	21	25	21	25	0%	84%
Dip. in Biomedical Sciences	14	20	22	25	57%	88%
Diploma in Pharmacy	18	20	20	25	11%	80%
Nurse Technician Certificate	59	60	63	150	7%	42%
B.Sc. in Nursing	48	60	200	60	317%	333%
Cert. in Nursing & Midwifery	236	391	370	410	57%	90%
BSc Biomedical sciences/ lab sciences			36			
MB BS Medicine	20	60	53	60	165%	88%
Total	**535**	**866**	**994**	**990**	**86%**	**100%**
POST BASIC COURSES						
Cert. in Community Nursing	32	35	28	20	-13%	140%
Dip. in Environmental Health	28	30	0		-100%	
Dip. in Biomedical Sciences	6	10	53		783%	
Dip. in Clinical Ophthalmology	27	30	21	20	-22%	105%
Cert. in Cataract Surgery	17	20	0		-100%	
Cert. in Psychiatry Nursing	16	0	17	12	6%	142%
Dip in Pharmacy			25			
Midwifery	30	35	17		-43%	
B.Sc. in Nursing	28	35	30		7%	
Post basic BSc Nursing			30	30		100%
POST GRADUATE COURSES						
MPH	14	25	25		79%	
GRAND TOTAL	**1268**	**1952**	**2234**		**76%**	

Source: Needs Assessment Study report, 2007

The increase in training places has been possible because there are more tutors. As mentioned earlier, a number of CHAM training institutes had been closed down because of lack of tutors. A programme was started in from 2001 to recruit diploma level nurses, provide them with an upgrade to BSc level -- a course which includes a component of education -- for which the individual agrees to work for two years as a trainer, seconded from the Ministry of health, in the CHAM training Institute. Initially these trainers were also offered top ups funded by GTZ, then the HIPC fund and are now funded by the MoH using SWAp funds. The MCHS has got 12 MoH staff who are seconded from the MoH, who get top-ups from the College to match the higher salaries paid by the institution[43]. The College of Medicine has higher staff numbers than in 2004 and is now less reliant on expatriates. In contrast, expatriate support to other training institutions has increased with at least 14 VSOs tutors and lecturers as well as

[43] MCHS is an autonomous institution that can set its own salary levels

other volunteers[44]. The number of staff at Kamuzu College of Nursing (KCN) has reduced in recent is, partly due to a freeze on recruitment until the University pay reform programme has been completed.

Effective as they are, there are some problems with these temporary measures. Either because of lack of housing or personal preference, tutors in some CHAM institutions are either commuting daily or weekly and are therefore unable to show full commitment to the job. Few stay longer than the two years prescribed in their contracts, so high turnover is disruptive and does not allow of longer-term capacity building. This high turnover can be explained by the remoteness of the facility in the CHAM institutions, but it is also possibly because tutors lose out on promotion opportunities whilst on secondment from the MoH.

CHAM institutions are not receiving support for infrastructure development from the MoH, but have received support for other donors and in particular Norwegian Church Aid. Construction of classroom, hostels and staff accommodation was observed on the field visits. Work on the infrastructure expansion of the College of Medicine to support an eventual intake of 60 medical students per year is well underway, but **the expansion of training places in other institutions has been hampered by the slow development of infrastructure.** The Malawi College of Health Sciences (MCHS) currently has 1,280 students in its three campuses[45] but a total of only 979 dormitory spaces. The shortfall is being made up by renting houses locally. The same kind of space shortages are being experienced in teaching space. Funds are available from the MoH through the SWAp, but delays have been experienced in the procurement process. For example MCHS has only just been able to hire an architect to design the required buildings. They are unlikely to be ready before 2009 at the earliest. Meanwhile the continued success in recruitment more students into the college means that the cumulative effect is stretching the infrastructure year by year.

The effective demand for training has been increased with the provision of government-funded studentships. All training institutions charge fees for students. The MoH contracts the training institutions (CHAM, MCHS and the University) to provide training places for the courses it needs and pays on a per capita basis. If the institution has surplus capacity on its courses it can charge private students. Agreements have been made on rates per capita and the funds are flowing. However, some institutions are finding that costs are rising because of the alternative accommodation needed while their own infrastructure is being developed. Also the expanded student intake requires them to seek practice sites further afield incurring extra transport and accommodation costs. One principal of a CHAM institution suggested that the current fee rate of MKW201,000 per year for a nurse training place, which has not been revised for several years, should be increase to MKW250 – 280,000. The Global Fund is paying fees for selected groups of health staff including Clinical Officers. The 'purchasing' arrangement between the MoH and training institutions appears to be making the provision of training more responsive. For example, a course for dental technicians was closed down as the MoH no longer needed the supply, but a new request has been made to revive a defunct course for lab assistants due to increasing demand. The institutions now have a built-in incentive to expand the number of training places since they are paid on a per capita basis.

Number of students successfully graduating

The number of students successfully graduating will depend on a number of different factors: the appropriateness of the entry criteria to the level of the course; the quality of teaching; the standard of the examinations and marking; and the willingness or ability (for non-academic reasons) of the students to complete the course.

In general the completion rates of graduates as reported by principals of training institutes interviewed appears to be quite high, though attrition data is not routinely produced[46]. The Needs Assessment Study report and a progress report for the HRMD provide graduation data (in the former some tables have intake and graduation together) though it is not clear what the attrition rate by cohort is. For example from Table 28 in the Needs Assessment Study report,

[44] including Peace Corps and Japanese volunteers

[45] Lilongwe, Blantyre and Mzuzu

[46] Some students re-sit years of training courses it is not possible to calculated this data accurately just from entrants and graduation data by year.

the attrition rate of the clinical officer intake of 2003 could either be 57% or 23% depending on which year the graduation for the 3-year course took places. It is also confusing that the 6-year pre-service training targets are given by academic year, but most reporting is by calendar year.

In some cases the entry criteria and selection procedures may not be appropriate. A number of interviews at training institutions revealed that it is quite a struggle to get students successfully through the course, in spite of the large number of applicants to choose from. Part of the problem is that even though students get through the entry exams, they struggle with the level of the course. Without intensive coaching some students would not pass. But with the expanding number of students and the relatively high turnover of tutors, coaching will be harder to provide.

Some principals interviewed said that the characteristics of the students had changed over the years. Fewer were joining health care training as a vocation and because of the labour market situation some students were entering any profession they could. Some would hedge their bets by getting on to a diploma course for nursing, but if they got the chance they would leave the course to take up a university place for which the recruitment was later in the year. This results in one place being lost for the duration of the course. Alternatively they might continue through to graduation, but not make effective health workers. The example of male nurses with a lack of interest in bedside nursing was given by several informants. An evaluation carried out by WHO in 2005[47] picked up this point and recommended that all candidates should be interviewed as part of the selection process to identify how serious they are about pursuing a career in health care. KCN has now taken up this recommendation and is experiencing far fewer dropouts during the training course. With only a relatively small number of applicants short-listed, this is possible for them. However, with 3,700 applicants short-listed for MCHS in 2007 this is not feasible, however desirable.

No information was collected to be able to comment on standard of exams and marking. The effectiveness of the teaching should logically be improving with the increase of trained tutors, improved facilities (including libraries) and teaching materials, though quality may suffer somewhat in the early expansion phase.

Number of trained staff willing and able to enter the health labour market, and able and willing to stay.

The number of people working in the health sector will depend on the *demand* - the number of actual jobs available (i.e. funded establishment) and the *supply* – the number of appropriately skilled applicants (new graduates, health workers returning to the labour market all foreign graduates) willing to fill the vacancies. The choices made by potential applicants will be determined amongst other things by pay and allowances, conditions of service, living conditions, career prospects (including further training) and how immediately the job and payment will be available and of course by the ability to know what jobs are available and where.

Vacancy analyses are calculated by comparing the number of posts filled with the total number of posts in the establishment. A comparison between the situation in 2003 and 2007 is given in Table 2. The measurement of vacancy rates is complicated as the establishment went through some minor revisions during this period with an increase of about 7% for the MoH and a surprising 66% for CHAM. **The overall situation when using the measure of vacancies looks bleak with the exception HSAs, but there is an overall increase of skilled health staff of 24%.** Some of the increases in vacancies may in some cases indicate the re-cycling of staff through up-grading courses (especially in nursing) so this does not indicate an overall loss the employer. However, in the case of CHAM's health technicians (lab, pharmacy, and dentistry) these are probably actual losses as there are no higher posts to upgrade to.

[47] Seloilwe et al (2005). Kamuzu College of Nursing External Evaluation report. 1-10 August, 2005.

Table 2: Vacancy level trend in MOH and CHAM facilities for health professionals between 2003 and 2007

HR Vacancy Levels against Establishment 2003 and 2007									
		MOH				CHAM			
Cadre	Grades used for 2007 comparison	2003		2007		2003		2007	
		Establishment	Vacancy rate (%)	Establishment	Vacancy rate (%)	Establishment	Vacancy rate (%)	Establishment	Vacancy rate (%)
Specialist Doctor		151	82	122	77%	0	0		
Medical Officer		93	32	156	45%	36	53	108	75%
Clinical Officer	d-k	563	25	420	-36%	121	36	747	76%
Medical Assistant	l-o	464	39	622	32%	271	55	215	15%
Reproductive Officer		258	100	-	-	-	-	-	-
Nursing Officer	d-j	883	76	1705	80%	(55)	-	145	63%
Nursing Sister	k-l	2791	88	1915	44%	(280)	(96)	1626	58%
Psychiatric Nurse		118	24	190	38%	(52)	-	59	93%
Community Nurse		268	30	403	53%	(207)	-	325	90%
Enrolled Nurse/Midwife	m	1906	42	1886	44%	(1301)	-	1198	78%
Nursing (combined)	d-m					1933	52		
Environmental Health Officer	d-i	483	76	281	76%	0	-	128	91%
Health Assistant		475	70	1169	73%	-	-		
Health Education Officer		76	89	-	-	-	-		
Health Surveillance Assistant		4324	0	4762	-2%	-	-		
Laboratory Related		190	60	218	41%	342	66	256	82%
Pharmacy Related		207	31	217	28%	344	84	211	91%
Radiology Related		149	76	163	67%	93	90	274	80%
Dentistry Related		15	0	109	-7%	203	74	274	91%
Total		**13414**	**43**	**14338**	**33%**	**3343**	**59%**	**5566**	**72%**

Source: Needs Assessment Study report based on POW for 2003; CHAM and MOH data for 2007

The establishment is often out of step with the actual service needs – both in terms of numbers but also positions. For example in the current establishment there are no posts for laboratory technicians, though clearly people are being employed to do the job. The new establishment has just been finalised as a result of a lengthy Functional Review, though aggregate staffing figures are not yet available.

The number of posts available in the MoH may be at variance to the perceived need – especially for the scaling up of programmes like ART. Individual programmes may have calculated staffing needs to deliver their particular services, but an overall workforce plan combining the needs of all areas of the service has yet to be developed.

The basic 'need' – or minimum staffing standard – was developed as part of the planning of the EHP and is used as an indicator for the POW. This is particularly useful for the level of health centre as below this minimum the centre cannot deliver adequate and safe services. At the time of writing this report the full set of indicators is not available data on nurses only shows 40% of facilities versuss target of 25% for 06/07 compared with baseline of 23% in 2002.

To tackle the shortage, the numbers of hours worked by staff are effectively being increased through the use of the 'locum' system. Staff are paid for extra hours work. The term 'locum' is a misnomer for most of the work done which appears to be in the same place of work and might therefore more appropriately be called 'overtime'. This is funded from the operations (ORT) budget, thus disguising the true Personnel Emolument (PE) costs. In one district we learnt of newly graduated Medical Assistants who had not been possible to formally recruit being funded entirely from this budget.

Inequitable geographic distribution of staff persists, though innovative solutions are being used. No readily available up-to-date information on the geographical distribution of staff, though earlier reports have shown this to be problematic[48]. For the MoH the figure can

[48] See for example Martineau, Lehmann, et al 2006

be compared at district level by population density, but this does not show the disparity within districts where facilities may be a long way from the district headquarters[49]. Field data showed that only 2 HCs in the 5 district of SE Zone had the full complement (one being in Zomba town (we visited). In Mulanje 16% (3/19) have no professional staff and in Mangochi 31% (12/39) are closed due to lack of staff. The MoH is providing funds for improving the living conditions in remoter areas for the installation of solar electricity and water pumps. There is a budget to provide 1,200 staff houses, but as with the other infrastructure development this has been delayed partly because of procurement.

A method of keeping health centres open that is now officially recognised is known as the relief system. Staff are seconded from their existing posts to work for a month in a health centre that would otherwise be closed and receive an allowance of MKW21,000 per month, also paid for by from the ORT budget.

Improved pay and allowances are attracting new graduates and helping to retain staff. The government's pay policy of 2004 aimed at significantly improving pay in the public sector. DFID agreed to fund an additional allowance of 52% of basic pay for 11 categories of health professional[50] employed by the MoH and CHAM. The provision of the allowance was not clearly communicated to staff and some were aggrieved to find that it was subject to tax. The situation on the payment of top-ups as of January 2007 is given below. The total cost of these allowances is over MKW50 million (over US$350,000)

Table 3: GOM and CHAM Workers receiving 52% Top-up on MKW

Month	No. of GoM Employees on Top-ups	Cost of GoM Salary Top-ups	No. of CHAM Employees on Top-ups	Cost of CHAM Salaries Employees Top-ups	Total Cost of Salary Top-ups
April 2005	3,763	31,254,932	1582	13,600,015	44,854,947
January 2006	4,031	34,938,225	1764	14,556,061	49,494,286
January 2007			1796	17,544,914	52,483139

Source: Needs Assessment Study Report from MoH 2006 and CHAM 2007 figures

Greater pay increases came in 2006 and again in July 2007. Some grades[51] of staff have enjoyed significant increases in their total remuneration package. For example a Clinical Officer at TO/K by 225%, a senior medical officer (P8/H) by 306% and a director (P2/D) by 845% between 2004 and 2007[52]. Of course much of the increase has been swallowed up by inflation. Nevertheless, health professionals are enjoying a total remuneration package at 52% above their colleagues in other parts of the civil service which was reported to provide a bit of a fillip to the staff. In 2005 when all the allowances were consolidated, it was difficult track exactly who was getting the 52% top-up, though health professionals can be identified by a code in the payroll. However, since the 52% was rolled into the basic pay the pension costs have gone up considerably. In the new budget treasury has taken the 52% out of the basic pay and this is now paid as a taxable allowance again, and should therefore be easy to monitor from the payroll.

There has been a dramatic expansion of personal emolument (PE) costs between 2003/04 and 2006/07. This is a result of both expansion of staff numbers and the increased levels of remuneration. This is unusual given the constraints on PE spending in most countries that is

[49] Also, those districts where there is a central hospital and therefore no district hospital may have a smaller complement of staff and therefore appear disadvantaged in comparison.
[50] This excluded the HSA, though the Global Fund has now agreed to pay this.
[51] The grading structure was changed as part of public sector reform.
[52] Figures derived from Table 4 in Picazo and Martineau (2005) and payroll data, MoH, August 2007

tied to GDP[53], though does appear to be rising in Malawi though this is part of the implementation of the public sector pay policy. The health sector's ability to extend even beyond these levels is a result of successful lobbying and external funding. The future of this funding is, however, uncertain.

Table 4: MOH Expenditure and Estimates 2003/04-2006/07

Items	**2003/04 Actual (MK'000)**	**2004/05 Actual (MK'000)**	**2005/06 Revised (MK'000)**	**2006/07 Approved (MK '000)**
Personal emoluments	1300.6	1,989.0	3,497.4	3,710.6
% increase in PE per annum	0	52.9	75.8	6.1
PE as % of Total Recurrent	32.5	40.6	32.7	27.8
Other recurrent transactions including drugs and medical supplies	2701.3	2,860.0	7,187.8	9642.2
% increase				
Total	4,001.9	4,899.0	10,685.2	13,352.8

Source: Needs Assessment Study report developed from Malawi Government Consolidated Annual Appropriation Accounts for the Financial Year Ended 30th June (Various and MOH Expenditure print-outs)

The recruitment of new graduates is improving. Having successfully increased the training output -- particularly of nurses -- the Ministry of health was initially unsuccessful in attracting new graduates to work in its health facilities. The steps leading to proper employment of new staff are cumbersome and lengthy. First, the individual needs to pass a second set of exams set by the relevant professional council. For nurses this was held a number of months after graduation. Furthermore, the pass rate was very low at about 25%. Even if staff were then posted it could take months for them to be put on the payroll[54]. It is therefore not surprising that some graduates took the opportunity to work for other employers. Though this was not a loss to the sector has a whole, not all graduates were working in areas of direct service provision, where they are most needed because of the current staffing crisis.

However, these serious losses of scarce staff acted as something of a wake-up call for the Ministry of health. Agreements were made with the CHAM secretariat to share the graduates on a 60/40 basis with the majority going to Ministry of health. Recruitment teams (CHAM and government together) now visit students before graduation to offer jobs. Coaching is provided to increase the pass rate of the professional council exams, and there are some discussions of merging the training Institute and professional council exams to avoid duplication and delays, a recommendation supported by a WHO evaluation team.[55]

Staff who have left the MoH are being recruited back. A survey carried out by the Health Services Commission confirmed speculation that there were trained health workers who were willing to return to work for the MoH. This is common practice with retired staff, though attracting potential employees below retirement age had not been tried before. This exercise produced interest of 600 and eventual recruitment of 465, though on 300 had reported for work. This recruitment innovation was obviously tapping into an unexploited area of the labour market. It did result however in 25 nurses employed by CHAM applying for and getting these jobs indicating that the increases in the remuneration of MoH health professionals might be having an impact on the wider labour market. The Director of MCHS said that as a result

[53] Referred to as PE/GDP ratio or percent. In Zambia, for example, this is set at 8.1% of GDP.
[54] It used to take up to 16 months to get new staff onto the payroll. The time lag went down to 2 months though is now back up to 7 (Source: statement at recent HR TWG meeting)
[55] Seloilwe et al (2005)

of the 52% increase given to MoH staff, his Board approved a pay increase for his staff as a retention measure.

Retention

Finally in order to ensure a return on the investments to train staff and attract them into employment attention needs to be paid to retention. This has three dimensions: loss to the sector – for example, moving to work in another sector[56] (also for example "common services" moving to another Ministry); loss of staff from one employer to another within the sector; and loss from one posting to another within an organisation. Losses[57] are either due to management decision as in the case of transfers, dismissal, end of contract/retirement or retrenchment; or the choice of the individual to find alternative employment at home or abroad or to move out of paid employment.

It is difficult to track losses and in particular to get information giving the reasons, though Table 5 shows recent information from the MoH. Requests from overseas employers for confirmation of registration from professional councils can be used as a proxy for migration overseas. Data from the Nursing and Midwives Council shows an average annual loss of under 100 per year (2002-5)[58], which represents about 2.5% of the total 3,800 combined nursing complement in the public sector[59], or about 25%[60] if those leave are all Registered Nurses.

Table 5: MoH Payroll Deletions: 2004 and 2005

Year	Deceased	Resigned	Retired	Absconded	Interdicted	Other	Total
2004	164	67	45	11	30	29	346
2005	214	115	77	37	28	20	491
Total	378	182	122	48	58	49	837

Source: Needs Assessment Study report based on data from MoH Human Resources Management & Development Section

Some policies and strategies are being developed and used to retain staff. The losses for 2005 shown in Table 5 account for about less that 3% of the total workforce[61]. By most standards this seems extremely low and suggests that not all data on losses is being captured. One possible explanation is that staff are working outside the MoH on secondment (for example, the staff working as temporary tutors) or on some other arrangement. In addition to the increases in remuneration, the MoH (and other employers) is trying to find ways of retaining staff.

Death rates (and long-term absence) may be reduced with the provision of ART for staff[62].The recent change in government policy on the retirement age which has now been raised from 55 to 60 – apparently without any lead time[63] - should have an important impact on staff retention and lead to an overall increase in the staff complement[64].

The MoH is revitalising the policy of bonding graduates whose studies have been funded by government. Students are now bonded for five years, regardless of the length of training. They are briefed by the MoH at the beginning of the course. The legality of the bond has yet to be tested.

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[56] Or setting up a small business
[57] With the obvious exception of long-term illness or death.
[58] Source: Needs Assessment Study report, Table 9
[59] For MoH and CHAM only
[60] 100/ (349+52) – MoH and CHAM
[61] Assumed to be about 18,000
[62] Assumed to be part of the HIV/AIDS policy in the workplace
[63] So anyone approaching the retirement age of 55 when the policy was introduced would be able to stay on until 60. Those unwilling to would already have made up the required number of years to get a full pension, so could take voluntary retirement.
[64] Many staff are already employed on post-retirement contracts, which would reduce the overall expansion of staff. However, the retention through continued employment will make the administrative burden much lighter.

A reason given for staff resigning is lack of promotion prospects. This is being addressed in the POW.

In spite of these attempts by the MoH to retain, resignations are likely to continue to rise if the NGO sector maintains the current rate of growth. An assumption of several HR-related sub-outputs in of the POW in Pillar 6 was that there would be an adequate understanding of the labour market. The 'Tracer study' addressed the question of how big the pool of qualified health workers is who could attracted back to the health sector was. However, there is no further documentation the comparative terms and conditions of different employers since the EHRP was designed.

Some work has been started on instituting a remote area allowance to improve attraction and retention in under-served areas. A survey has been conducted by MOH which identified 135 public health centres across all 27 district considered "hard to staff". As yet no incentive package for staff at these health centres has been agreed.

The deployment policy that is currently under development is also addressing the issue of more equitable distribution of health staff.

The high turnover of jobs within MoH as instigated by management has an impact on the ability of individuals to be effective. This is particularly so in management positions and has been very noticeable in the MoH headquarters. Most post-holders have to develop their skills on the job – in each post they are put into, thus increasing the time it takes for them to become effective. The high level of turnover results in the loss of institutional memory and the ability for lesson learning which is essential for successful navigation through the kind of change the MoH is currently experiencing (the EHP, SWAp, decentralisation, etc). The MoH has a reasonable amount of control over the deployment of most of its staff. However, those working in areas such as finance or human resources belong to the "common services" of government and their deployment is controlled by central government.

3.2 Performance

Neither the POW nor the ERHP deal with staff performance with the exception of in-service training to match skills to the job and supervision.

In-service training seems to have two different effects on staff performance. The first is that staff gain skills for tasks they could not perform before. There are many examples of where this has been effective. The negative effect is well known: staff are away from the workplace so performance of the service delivery suffers. Because of the financial incentives attached to attending training courses, it is difficult to ensure rational use of training that balances service delivery requirements for enhanced skills and the need for people to be available to deliver the services. The POW has a sub-output to ensure that in-service training is integrated. This is proving to be quite challenging as programmes with their own funding prefer to manage their in-service training courses themselves. A draft policy on training attempts to address this ensuring that all training provided is in response to clearly identified training needs and priorities. District training committees are also getting support from the HRM&D section to improve the management of in-service training.

The Annual Implementation Plan for 2006/7 includes a sub-output on improved productivity and performance of health workers. The related activities include the provision of orientation on codes of conduct; development of mechanisms of managing staff absence; designing performance management systems; and updating job descriptions, job plans, appraisal mechanisms, etc. However, no budget appears to have been assigned, so it is assumed that this work is still outstanding.

There are examples of performance management systems in the organisations of other SWAp partners. For example MSF working in Tyolu district has an incentive based performance management system. CHAM said to have a performance management system.

However, individual performance is often driven just as effectively by organisational level performance management systems. This includes accreditation for infection-free facilities, maternal death audits etc. With a few of these systems in place it is possible to develop a performance culture.

3.3 HR policies and systems

The employment of MoH staff is overseen by the Department of the Human Resource Development (DHRMD) of the Office of the President and Cabinet. The day to day administration, including processing posting, promotions and disciplinary actions is managed by the HRMD section in the MoH under the Director of Finance and Administration. The technical directors may play a role in the deployment of the professional groups for which they are responsible. There are HR administrative staff at hospital and district level. These HR officers and the staff of HRMD are part of the "common services" staff who can be posted to any ministry.

The recruitment of health professionals is now carried out by the Health Service Commission, with the exception of sub-ordinate class staff including HSAs who are recruited at district level jointly by the District Health Office and the District Commissioner's Office.

CHAM staff are recruited by the individual member organisations, but CHAM does maintain an HR function to oversee the needs of its members.

There has been a high level advisory body on human resources made up of stakeholders from across the sector since 2000. This was re-constituted as the HR Technical Working Group with the arrival of the SWAp. This includes representatives from employers, training institutions, development partners, etc and is currently chaired by the Director of Finance and Administration. Although this is a sector wide working group, the agenda appears to be set by the MoH. Some non-government members said they did not always get the invitations to meetings, including one held at short notice during the review mission. Nevertheless, this was seen as a welcome forum for discussion HR issues in the sector.

In the design of the SWAp it was an unstated assumption that the HRMD section would take a strategic role in implementing Pillar 1 -- a huge responsibility with a potential budget of $273 million. This would include developing policies, strategic plans and detailed workforce plans, monitoring of the use of investments and the coordination of both pre-service and in-service training. However, the HRMD section is really designed to carry out administrative rather that strategic functions. The head of section, the Controller, is one grade below that of a Director. Few of the posts are technical. In the new Functional Review which was based on a wide consultation process there is no mention of leading the human resource strategy for the whole sector, and the human resource planning function is described as "succession planning"[65], which is far less strategic than workforce planning.

The HRMD section has also been staffed for administrative rather than strategic functions. Only one member of the section has a management qualification. More seriously, the section has been without a controller for most of the last two years which has deprived it of a voice at senior management level. Of the three units of the HRMD section the Human Resource Management unit appears to the best staffed compared to the Human Resource Development unit and the Human Resource Planning unit – though the latter is now receiving four new staff, albeit fairly junior. The section has had TAs for human resource management and human resource development for the past 2 1/2 years. A senior TA for human resources management and development was posted in the Planning Directorate. This post has now been terminated and a human resources planning specialist has now joined the HRMD section.

The HRMD section has contributed significantly to the scaling up of the pre-service training programme and improving recruitment and employment of new graduates. It is also improving data collection through staffing returns and some basic analysis of the data. However, much of the time -- including that of the TAs -- is spent carrying out routine work and "fire-fighting". This has led to the delay in producing and getting approval for a number of policy documents and an HRH strategy -- and in general the ability to strengthen systems and develop capacity.

[65] In an interview with DHRMD is was said that this may have been an error and could be corrected.

By definition the SWAp covers the whole sector, though the focus of the HRMD section -- both because of time constraints and organisational culture and communication protocols -- makes it difficult for them to relate to other employers except through the HRH TWG. Because of the severe shortage of staff many programmes are using volunteer and community inputs for various aspects of service delivery. However, the remit of the HRMD section is to deal only with formally employed staff.

The HRMD section is not alone in the Ministry in dealing with human resource matters. The directors responsible for service delivery are all making decisions about the deployment of their related cadres. The Planning Directorate is making overall decisions about health plans, and until recently was producing strategy and policy documents on human resources. The Health Information Unit was collaborating with the development of a monitoring and evaluation framework, and will be overseeing the HRH census exercise. The benefits from contributions from these different actors has not always been maximised, partly because of insufficient coordination at a high level. Directors appear to make decisions about deployment without involving the HRMD section. There has been duplication of effort in the development of policy and plans because of issues of ownership. There is duplication of data collection with the HRMD section, the Director of Nursing (and probably other technical directorates) and the Health Information Unit all operating parallel systems. The lack of coordination of in-service training efforts has been mentioned above.

Part of the coordination challenge is the fact that the ministry is working to a multiple set of human resource plans -- long-term plans as well as immediate action plans -- that are not clearly linked. As well as the programme of work and the Annual Implementation Plans derived from this, there is: the 6-year pre-service training plan (which now needs updating as it enters its final year); the Emergency Human Resource Plan; sets of milestones produced by the annual and mid term reviews; the action plan for meeting "conditions precedent" for the Global Fund developed in April 2007; and most recently an action plan developed as a result of the Needs Assessment Study; and shortly after the HRH census is complete it will be necessary to develop a workforce plan with long-term staffing projections. In addition to the problems of coordination, it is difficult to get a high-level view of how well Pillar 1 is progressing, as the Needs Assessment of Study team probably found and certainly this reviewer did.

3.4 Technical Assistance

The EHRP included the use of volunteers to fill key vacant service delivery and training posts; this has been discussed above. In the design of the SWAp it was agreed that technical assistance was needed to support the Ministry that would be financed from pooled funds. Other bilateral and UN agencies have also supplied TA to the ministry. This form of assistance was the subject of a significant part of the Needs Assessment Study which should be referred to for more details.

Several key issues came out of this review. The first is that it is not always clear what the TAs are being used for. Whilst the aspiration was that TAs would be used for capacity building to strengthen the functions in the Ministry, in many cases the TAs – some of whom are highly qualified experts – are being used to fill vacant posts and carry out the routine work of the ministry. Some TAs are said to have done an excellent job; there were concerns expressed about the achievements of others. Part of the problem is due to the way in which TAs performance has been managed. First, they should have a counterpart with whom they agree job plans; some had no counterparts. There is little in the way of a performance management culture within the ministry in general. The Needs Assessment Study found that in most cases TA outputs were not monitored by senior managers. TAs on the LATH contract have a performance management system, but this relies on collaboration with senior managers. For the reasons mentioned above, capacity development has not been very successful. This is also partly due to the fact that turnover of ministry staff has been higher than that of the TAs.

The opportunity to improve the management of the TAs was missed when the 15 month extension was added[66], partly because it was managed in a rush. The need for much better planning of any further extensions was expressed at the HRH TWG. The Needs Assessment Study report recommends much clearer analysis of TA needs and provides a useful, as yet incomplete, table that could be used for this assessment. The report also recommends the establishment of a national consultancy company to handle the TA on behalf of the Ministry of health.

Table 6: Summary responses to questions from the TOR

Questions	Summary response
How appropriate are the staffing norms in the POW by level of service delivery?	No clearly stated norms in POW, but assume these refer to the minimum standards for the EHP or the staffing included in the POW budget. HRMD and DHRMD work on the basis of the establishment which appears to have been increased. Main problems with old establishment appeared to be with interns (no posts), clinical officers shortage of posts) and insufficient posts to accommodate the expansion of HSAs. No analysis has yet been done of the new establishment; aggregate figures by cadre are not provided.
How well do current staffing levels fit with the HR requirements in the health sector?	Data are not available for staffing against HR requirements. Vacancy rate static (2003 – 46% to 2006 – 44%); but increase in establishment over same period. Actual staffing levels are improving. For example, compared to 2003, doctors increased by 41% in 2007, combined nurses by 33%. Most of the increase appears to be due to increased training output (see below), but also helped by use of volunteers (mainly 72 UNV and VSO doctors and nurse tutors); active recruitment of graduates and attraction and retention due to salaries increases. Also some increments in establishment during the period. Managers in the field saying that staffing was beginning to get better.
How equitably are human resources distributed throughout the country?	No readily available data. Can be calculated against population, but doesn't show disparity within districts. Minimum staffing norms information by district not yet complete, but data on nurses only shows 40% of facilities vs target of 25% for 06/07 vs baseline of 23% in 2002. Field data showed that only 2 HCs in the 5 district of SE Zone had the full complement (one being in Zomba town (we visited). In Mulanje 16% (3/19) have no professional staff and in Mangochi 31% (13/39) are closed due to lack of staff. The "relief" system is keeping some of the remoter facilities open.
What is the projected HR need for the remaining period of the POW, when considered against the HR strategic plan?	No strategic plan or workforce plan yet. Demand for more staff is growing beyond original staffing plans for the EHP with new and expanding programmes eg Maternal road map requiring 7,035 trained midwives; 400 clinicians, 450 nurses for full ART roll-out. All these demands need to be considered, and plans made that are in line with the new establishment and wage funding available. Immediate steps include; need head count; some kind of workload analysis; then workforce plan with 10-year projections (not more) that will be regularly reviewed.
What progress has been made in setting up the HRMIS for tracking HR for health?	Some improvements have been made in information gathering through regular staff returns. This has been used for answering a number of queries including vacancy analysis. New HR planning TA beginning to look at this. The government payroll has recently been changed, but some important data (dates of birth, first appointment, etc) was corrupted in the transfer and the posts don't match the currently establishment properly. The database is being cleaned and

[66] Though LATH has now developed specific capacity development plans with each of the TAs.

	now that the FR has been approved, the new posts can be entered. The database is planned to be established after the HR census for which bids have now been received.
How appropriate and effective is the package of incentives provided to HWs?	Virtually all incentives are intended to improve attraction and retention, as opposed to improving performance. Pay increases and allowances have increased since 2004 eg for P2/D by 845%; P8/H by 306%; TO/K by 225%. Attracting more entrants to training and may be improving retention. Housing construction planned, but delayed. Districts improving environment (solar, water, etc in remote areas). Hard to staff area incentives not yet developed, probably awaiting approval of deployment policy.
How well are training and deployment policies being institutionalised throughout the health sector?	The two official policies are still in draft form. De facto deployment policy is through the used of relief system and to some extent locum, though this may be depleting the ORT budget. More care being taken over initial posting of graduates, rather than just forcing them to go to unpopular places.
How appropriate and effective is the support being given to training institutions?	Funds flowing on time; more tutors; training places expanding; provision of equipment; transport; infrastructure development for COM, KCN and MCHS, but not CHAM – provided through Norwegian Church Aid. Support for studentships from SWAp and GF. If pre-med course not funded, MBBS will collapse.
How well is training progressing towards meeting targets?	Training institutes at full capacity (994 in 2006) and reached POW target of 990/year.
How likely is it that targets will be achieved for the 6-year training plan and the Emergency Human Resource Programme?	Training institutes are currently at full capacity and have surpassed the target of 990 per year.ERHP progress: vacancies filled – see above; recruiting back <300 (but not all reported); salary increase (see above); housing – in progress, but delayed; pre-service (see above); remote area incentives: the incentive packages were endorsed by HRTWG and approved by MOH management; 72 expatriates employed

4. Analysis and discussion

Successes

There have been clear successes in the programme of work in building up training capacity across the sector, based on foundations developed from about 2000, and these efforts are now beginning to bear fruit with increased training output which overall is reasonably in line with the six-year pre-service training plan targets.

The MoH together with CHAM have improved the next stage in the “pipeline” of getting graduates into the health workforce. This was partly due to the willingness to learn from one or two early failures in recruitment. Since there are no easy answers in dealing with staff shortages this kind of learning is extremely important and commendable.

Through concerted effort and collaboration with several key development partners, the ministry has successfully convinced central government to make a special case for improving remuneration of health personnel. This success has attracted recognition by the international development community, and the ministry along with SWAp partners should be proud of this.

The ministry and CHAM are beginning to make headway with making living and working conditions in remote locations more attractive to staff, which in turn will lead to more equity in service provision.

The combination of these areas of success is now resulting in more health staff on the ground. This is demonstrated in the staffing statistics, but was also confirmed in some visits to the field.

Review of risks and assumptions
At this stage in the programme is appropriate to see whether assumptions made in the design are holding true and whether other risks are emerging to ensure that the programme is addressing the right issues. The assumptions are drawn from the log frame of Pillars 1 and some of 6 in the POW.

On the increased remuneration, the assumption that there was willingness by government to make an exception for the health sector was indeed true. And, although there may be problems reported elsewhere in this review regarding financial management systems, they did not noticeably hamper the distribution of the additional health worker allowance. One assumption, repeated several times, was that there would be an adequate understanding of the labour market for health workers in Malawi. This is essential for the ministry to continue to propose appropriate remuneration levels, though this has not been done. In fact there appears to be a lack of understanding amongst some stakeholders about how the labour market functions. The Needs Assessment Study report frequently refers to the "poaching" of staff by employers who can pay more. This somewhat emotive and inaccurate[67] language may be an impediment to an objective study of push and pull factors within the labour market.

In support of the expansion of the workforce, as assumed in the POW the Establishment was revised as a result of the Functional Review which was carried out in consultation with the MoH. However an analysis of whether it now meets the needs of the ministry, especially given the planned expansion of a number of key programs, has yet to be carried out, so it is not yet possible to see how well it supports the expansion of the workforce.

Vertical programmes do not appear to have integrated their training activities with those of the Central Ministry as assumed, but the training policy which would ensure this has yet to be approved.

A key assumption was that there would be sufficient capacity at headquarters to manage Pillar 1 of the POW. As has been illustrated in the previous section, this assumption was not entirely correct, and has therefore moved into the 'risk' category. What is more, it appears as if some of the momentum around addressing the human resource crisis built up in the development of the POW has been diminished. Though significant progress has been made there are still many challenges ahead to meet the demanding targets in the plan. If these are not met, the success of the EHP and the whole POW is at risk.

A major assumption of the EHRP was the ability to continue to finance the additional Personal Emolument (PE) costs either through Treasury, development partners or both. This assumption is further complicated with the impending transfer of staff to local government which may, as elsewhere, challenge the ability to pay differential salary levels to staff of the same employer[68]. It was not possible in this review to confirm this assumption, but because of the unpredictability of financing sources and the impact of transferring health staff to a new employer, it is strongly suggested that it is kept under review as a potential risk. A similar risk, identified in the Needs Assessment Study report, is the sustainability of the expanded training infrastructure if and when the training targets have been met.

[67] Poaching would only be a suitable term where staff are specifically headhunted.
[68] This problem was experienced in the Philippines in the mid 1990s. The inappropriate handling of this problem by employers led to serious industrial action.

A further emerging risk identified in this review is the ability to sustain the laudable gains that have been made to date. The gains have been made through what have been referred to explicitly as emergency measures. For example, the staffing of training institutions has been achieved by short-term secondments of service delivery staff by means of incentives of further training prior to the secondment and expensive additional allowances. This investment in further training could lead to a better qualified workforce when the staff return from their secondments, but equally there is the risk that having been upgraded staff are no longer willing to fill the gaps they once did or having become more marketable they find employment elsewhere. Staffing gaps are being filled by effectively paying staff overtime and in remote postings by the "relief" system. Both solutions are being financed from the ORT budget, reducing the money available for other needs. The innovative recruitment and employment strategies are both labour intensive and probably quite expensive. Without wishing to detract from these successes, these emergency measures are easier to design and implement than developing and implementing the longer term policies and strategies for sustaining the workforce. At this point in the POW is important that, whilst building on the gains made so far, these more challenging issues are addressed with the same creativity and enthusiasm as for the emergency measures.

Strengthening the leadership on HRH

As well as continuing to make progress with remaining objectives in the POW, it is important to address the risks detailed above. The first requirement is to strengthen the leadership for Pillar 1 at senior management level. This could be established first by filling the vacant post of Controller of HRMD section with someone who can take the strategic approach to addressing the human resource challenges across the health sector. This person needs the ability to lead on the development of appropriate human resource policy, strategic planning and monitoring and evaluation. From discussions with DHRMD, which suffers from serious attrition of their common service staff once they gain a higher degree, finding such a person through normal government channels may be difficult. Other means of filling that post may need to be considered.

In addition to this, or in case the post of controller cannot be filled, it is suggested that a small subcommittee of the Senior Management Group is established to share the burden of addressing the challenges of Pillar 1, to ensure coordination of all human resource related activities in the ministry, and to jointly monitor the progress against the POW and in particular the AIPs. This subcommittee, which would ideally meet on a regular basis, should be chaired either by the PS or the DOFA and include at least some of the technical directors. The subcommittee would in no way be a replacement for the HRH Technical Working Group -- simply strengthening the MoH functions related to human resources.

Reinvigorating the strategic direction for HRH

Leadership should be guided by a clear and broadly owned HRH strategy for the sector. It is more important that this is a shared set of intellectually justifiable strategic concepts than the production of the document, tempting as this may be if this is simply an administrative requirement. Nevertheless, it will be useful to derive something based on these strategic concepts that would include all current plans and be flexible enough to incorporate new plans as long as they are in line with the overall strategic direction. At this stage it is probably not appropriate to try to incorporate everything into a single comprehensive strategic plan, especially given the deadline agreed with the Global Fund for a strategic document by December 2007. Instead, it would be sufficient to produce a strategic framework which incorporates all the existing plans, and has space for forthcoming plans such as the workforce plan which needs to be developed in early 2008 and considers some of the existing challenges like the scale-up of certain programmes and future “big looming questions” such as the transfer of staff to local assemblies. The question arises as to how this can be achieved when earlier attempts have failed. Obviously senior management must support this initiative (by ensuring protected time to get it done and the required cooperation of key stakeholders) and be monitoring progress on it. Adequate preparation to ensure the technical quality of the product will be needed and sufficient consultation to ensure ownership both of which can be organised by the MoH in collaboration with the HRH TWG. But the actual process of putting together the document probably needs an external facilitator with experience of inspiring strategic thinking, gently but firmly herding divergent stakeholders

towards a common goal, and assisting with the production of a clear and crisp document that can be used for updating the current AIP and developing the AIP for 2008/9, and easier higher level monitoring of progress on Pillar 1. At a later stage a comprehensive strategic plan could be developed on the basis of this framework, but since this is a much more onerous task it is not advised given the need to move things forward and the December deadline. Needless to say it will need the HRH TWG with the help of the HR subcommittee of SMG to ensure that the strategic framework is put into action. A suggested structure before the strategic HRH framework is given for discussion in Annex 5.

Use of data to workforce planning and monitoring

The HRH census, if completed by the end of the year provides opportunities both for starting the process of workforce planning and for better overall monitoring of the production, deployment and retention of the health workforce. The availability of the TA for HR planning until June 2008 is also an opportunity that should be used. It was not possible to find out exactly what has been planned with regard to the workload analysis scheduled prior to the workforce planning, though references to a document have been seen. There is a danger that the workload analysis could be lengthy, and if not well managed, unproductive and thus hamper the development of the workforce plan. It may be better to carry out a more rapid workload analysis based a) on the existing information on workload[69] of the EHP and planned additions, and b) a process of using expert opinion. Because the sector is currently far from meeting existing staffing targets, this analysis and the subsequent workforce plan does not need a high level of accuracy – it is more important that the general direction is agreed upon and priorities for getting there. The workload analysis and consequently the workforce projections will almost certainly need to be revised in the next couple of years. With more time to plan for these activities and the experience of the earlier cruder workload analysis and workforce projections, a more sophisticated job can be done the second time round.

It is assumed that the HRH census data will be the basis of an ongoing database on health workforce, at least for staff employed by the Ministry of health. This could then be used as a kind of "dashboard" means of monitoring different steps in the flow of increments and losses of the workforce. Using the flow concept given in Annex 4, data for each group or even specific cadre of health workers could be compiled on one sheet all in one table. This would include the number of applicants (to measure demand) for each course and number of candidates selected (to measure funded demand meeting selection criteria) against targets. The next step would show number of graduates in order to monitor completion rates against targets. The next step would show recruitment figures of new graduates, returnees to the sector and overseas trained staff (by employer, if possible, but that least for the MoH) to identify the ability of employer to attract staff into the health workforce. The last step would show staff losses by employer and reason if possible, to show how effectively staff are being retained. Each of these steps would have space for a few bullet points explaining increases or decreases and variance against targets and all data should be disaggregated by sex where possible. This simple dashboard mechanism would clearly show technical directors and others (including the HRH TWG and the SMG subcommittee) what progress is being made at different stages in building up the workforce. As well as drawing from the HRH database, this would require information from the training institutions. This is already being compiled by the HRD unit, but a little extra information on application numbers and explanations of variance would be needed. An alternative would be to use the staffing goals section of the training cost model that was updated in 2005[70]. This would not include all the flow data, but would consolidate data on the main cadres in one place.

Working towards developing a performance culture

The emphasis of the EHRP has been on increasing staff numbers and less attention has been given to improving staff performance. There are plans for developing a performance appraisal system, updating job descriptions, developing systems for managing absence, etc in the broad work plans. These systems, which are largely targeted at the individual, can

[69] Some specific studies have been done by projects based at district level, and it is likely that some specific programmes have information on their staffing needs.

[70] The file is TrainingCostModelwithnewCOMdata040405.xls which was provided on the electronic document CD to the review team by the SWAp secretariat.

work effectively in organisations that already have a good performance culture. However, they are difficult systems to develop and even more difficult to institutionalise so that they actually lead to better performance and are not merely carried out as part of a bureaucratic ritual. There are a number of initiatives across the sector that are targeted more at performance at organisational level. For example, the control of infection in hospital; maternal death audit, etc. It would be useful to examine the impact of these initiatives on performance at the level of the organisation, but also as drivers of individual performance including absenteeism. If these initiatives are effectively developing a "performance culture" in the organisation, it may be better to concentrate on the expansion of this type of initiative rather than performance management systems aimed at the individual -- the least in the short to medium-term. This could be debated following a review of the study findings.

Strengthening the HR function
A skills audit of the HR function is currently being planned for the Ministry of health to be carried out at all levels. This will be important to identify staff development needs. There is also an activity in the AIP for 2006/7 identifying the key actors making decisions related to the workforce. This has not been carried out yet, but would complement the skills audit and would identify current overlaps and gaps in the carrying out the HR function

The future of technical assistance
This review confirmed the findings of the Needs Assessment Study that the benefits of technical assistance have been mixed. Some excellent work has been done; in other cases opportunities have been missed. It is a difficult role for the Ministry to switch from having little say in the selection and management of TA, to now being largely responsible for its successful use. Other countries in the early stage of their SWAp programmes have also found this challenging, though it is all the more difficult in for the MoH in Malawi because of both the shortage of staff and the lack of effective performance management systems already in existence in the Ministry.

The kind of needs assessment tool produced in the Needs Assessment Study report will help with the decisions for what is needed after June 2008. However, perhaps an interim stage in the process is needed. This would consider whether other options would be more suitable for the purpose. For example in cases where TAs have really played mostly a line role because there are in not enough bodies, it might be more cost-effective to hire a bright young graduate on a fixed term contract. Where occasional technical expertise is used, this might be brought in for specific purposes through the use of Short Term TA. Some functions might be better being contracted out, particularly where specific skills needed are difficult to retain however much the effort is put into capacity building. For example, in the last 10 years the MoH has trained two HR planners. Neither of them stayed long after returning from their masters courses. In another country in southern Africa, this function was contracted out. The Ministry of health gave the firm the specifications for data analysis and development projections and provided the dataset. The ministry was then able to use the products for its planning and policy making but did not to retain the specific skills for this work. Different options should be explored before deciding that more TA is the answer.

5. Conclusions and recommendations

It was always recognised that Pillar 1 would be both essential to the success of the POW but also one of the most challenging. Progress has definitely been made in expanding training output and improving recruitment and deployment resulting in more staff in the facilities. Progress has also been made in improving terms and conditions of the health workforce which has also helped with the traction and retention. Some areas of the work plan -- probably the more difficult ones -- have lagged behind. This is the appropriate time to take stock of successes and reinvigorate the HRH strategic planning process and to address the capacity issues at the MoH headquarter in order to be able to effectively take the plan forward for the next phase.

The following suggestions are offered to support this process; items 1 and 2 are the highest priority:

Recommendations	Responsibility	Suggested actions
1. HR strategy		
Re-invigorate HRH strategic thinking process and develop framework with ownership; consolidate various action plans into revised AIPs	HRMD section with support from PS/DOFA	Ensure a senior management support behind this process; DOFA to project manage the process Catalogue all plans and other elements to be included in the framework Recruit expert on strategic planning and HR to facilitator process[71] (2-3 wks) Complete draft framework by November 2007 Consultation, revision, approval by December 2007 Develop means of monitoring implementation of framework (when developing the framework) Modify AIP 07/08 as required Develop into one comprehensive strategy (after a year or so)
2. Strengthen HR leadership		
2.1 Fill Controller HRMD post with competent person	PS	Develop ideal person specification Lobby DHRMD If appropriate candidate not available from DHRMD, consider alternative method of filling post
2.2 Establish HR sub-group of SMG to meet regularly to monitor progress against HRH framework and jointly solve problems (or increase frequency of HRH TWG meetings and modify TOR as necessary)	DOFA	Develop TOR of group including membership and frequency of meetings Approval by SMG Regular meetings and reporting to SMG
2.3 Review of HR functions across key actors[72] (to support HRH skills analysis) –to improve coverage (gaps and overlaps) and coordination	HRH TWG to lead on this	Identify all HR and associated functions needed to ensure there is an effective and equitably distributed health workforce across the sector to deliver the EHP. Map functions currently being carried out by key actors. Identifying gaps and overlaps, problems of coordination etc

[71] Person specification: understands strategic HR; good facilitator who can work effectively with a group with divergent interests; preferably understands current health sector situation and planning environment, but is not part of it.
[72] See 1.7.1 in 2006/7 AIP for more details

Recommendations	Responsibility	Suggested actions
		Develop action plan to improve coverage of all functions across the sector.
3. Using data to support HR strategy		
3.1 Make better use of existing staffing data	HRMD section	Start analysing staffing returns (eg staff distribution) Improve data flow from districts and hospitals (providing useful feedback might be an inducement) Eventually carry out data analysis jointly with CHAM
3.2 Improve data collection and analysis on training: intake, graduation, attrition by cohort to monitor impact of training investments	HRMD section	Identify data sources. Develop simple 'dashboard' tool for quantitative and qualitative monitoring of stock and flow (entry into training to retention and changing demand) by staff group (assume no conflict with M&E plans) see flowchart in Annex 4 Identify bottlenecks in system where achievement is poor
4. Performance		
4.1 Start development strategies to improve performance culture	HRMD section + directors	Identify current performance improvement initiatives (eg infection prevention, QA, MCH model, supervision) Publicise findings; decide whether it is better, at this point in time, to focus organisational performance management than to attempt to install systems targeted at the individual e.g. performance appraisal system
5. Technical Assistance		
5.1 Further develop TA needs assessment process described in Needs Assessment Study report	PS/DOFA	Ensure that alternatives are considered to the use of long-term TA in the needs analysis process (e.g. 1) short-term TA for specific tasks 2) contract out functions for which MoH lacks expertise 3) for administrative tasks hire competent graduate on fixed-term contract).

HR Appendices

Appendix HR 1: List of visits, meetings and people met

Date	Name	Designation/Office
22 Aug	Edwin Wochi; CHRMO, with Patrick Boko PHRDO; Charles Matsiko, HR planning TA and Harold Kachandi, HR management TA	HRMD, MoH
22 Aug	HRH Technical Working Group meeting	MIM
23 Aug	Mr Akadu	Principal, Nkoma College of Nursing
23 Aug	Francis Gondwe & Desire Mhango	ED & Director Health Programmes, CHAM
23 Aug	Michael Niechzial	GTZ consultant
24 Aug	Mrs Kamfose, Atg DHO & Mr Nixon Ndazi, Assist HR Officer	Dowa DHO
24 Aug	Mr Sapa, Executive Secretary & Mrs Stella Sagawa, Chair	Health Services Commission
27 Aug	Esther Ratsma & team	ZHO, Zomba
27 Aug	Mr Edwin Bakali, Actg Director & Mr Mataka, Health Service Administrator; and team	Zomba Central Hospital
27 Aug	Dr Maurice Mulenga, DHO and team	Zomba DHO
27 Aug	Solomon Mpawa & team	Matawale Urban HC, Zomba District
28 Aug	Dr C Phiri, DMO & team; Mrs Bertha Sandramu, Sr Asst HRMO & Mrs Melayi Mhone, Principal Hospital Service Administrator	Blantyre DHO
28 Aug	Prof Robin Broadhead, Principal	College of Medicine
28 Aug	Prof Cam Bowie	Dept Community Health, COM
28 Aug	Dr George Mwale, Director and team; Tom Chisale, Chief Hospital Administrator; Stephen Polela, Sr Asst HRMO	Queen Elizabeth II Central Hospital
28 Aug	Mrs Sheila Bandazi, Acting Director Nursing	MoH
29 Aug	Edwin Wochi	CHRMO
30 Aug	Diana Jere, Principal	Kamuzu College of Nursing
30 Aug	Seshu Babu, HMIS consultant	MoH
31 Aug	Charlotte Duncan, Matt Gordon, Julia Kemp	DFID
31 Aug	Mr Bondo, Director, Management Services	DHRMD
3 Sep	Mr Chadza, Chief Systems Analyst	MoH
4 Sep	Paula Ghrist	LFA, PriceWaterhouseCoopers
5 Sep	Mr Lodzeni, Director Finance and Administration	MoH
5 Sep	Donor meeting	GTZ Offices

5 Sep	Mr Kawamba, Assistant Human Resource Management Officer	MoH
6 Sep	Mr Masache, Director	Malawi College of Health Sciences
6 Sep	Ian Chingwale, TA HRD & Mr Patrick Boko	HRD Unit, HRMD
6 Sep	Presentation meeting	Ministry of Health

Annex 2: List of documents reviewed

Ager et al (2003). Review of the Organisational Structure of the Central MOHP in the light of the transition to a developed health system and related reforms.

Babu, S. (2006). Tracking of Human Resources for Health in Malawi (draft), Unpublished document.

Caffrey, M. and G. Frelick (2006). Health Workforce "Innovative Approaches and Promising Practices" Study. Attracting and Retaining Nurse Tutors in Malawi, Capacity Project.

Department of Planning (2004). A joint programme of work for a health sector wide approach (SWAp) [2004-2010]. Lilongwe, Ministry of Health.

Gilks, C. and et al (2006). Report of the Malawi ART Programme External Review Team 4th - 15th September 2006, Ministry of Health.

Health Services Commission (2006). Report on the tracer study.

Kachiza, C. and V. Shaw (2004). Lilongwe District Health Office Facility Survey.

Koot, J. and T. Martineau (2004). Institutional Appraisal (of the College of Medicine, University of Malawi).

Martineau, T., U. Lehmann, et al. (2006). Factors affecting retention of different groups of rural health workers in Malawi and Eastern Cape Province, South Africa. Liverpool, Liverpool School of Tropical Medicine.

Ministry of Health, Malawi Health SWAp Donor Group, et al. (2007). Human resources/ capacity development within the health sector. Needs assessment study. Final report - June 2007.

Ministry of Health (2004). Human resources in the health sector: toward a solution.

Ministry of Health (2006). National Health Sector Deployment Policy (Draft).

Ministry of Health (2006). Report of the annual review of the health sector 2005-2006 Financial Year.

Ministry of Health (2007). Draft Human Resources Development (HRD) Policy For The Public Health Sector (August 2007).

Ministry of Health (2007). Draft human resources for health strategic plan: 2007-2010 (April 2007).

Ministry of Health (2007). Human Resources Development (HRD) Policy For The Public Health Sector.

Ministry of Health (2007). Mid-year report for the work of the health sector. July to December 2006.

Ministry of Health (2007). Report for the Joint Mid-Year Review of The Health Sector, 2006-2007.

Ministry of Health and Population (1999). Malawi National Health Plan 1999-2004: Volume 3 - Health Sector Human Resources Plan. Lilongwe, Government of Malawi.

MoH (2002). EHP cost model.

Palmer, D. (2006). "Tackling Malawi's Human Resources Crisis." Reproductive Health Matters **14**(27): 27.

Picazo, O. and T. Martineau (2005). Human Resources and Financing for Health in Malawi: Issues and Options. Unpublished, World Bank.

Planning Department, M. (2002). A 6-Year Emergency Pre-Service Training Plan.

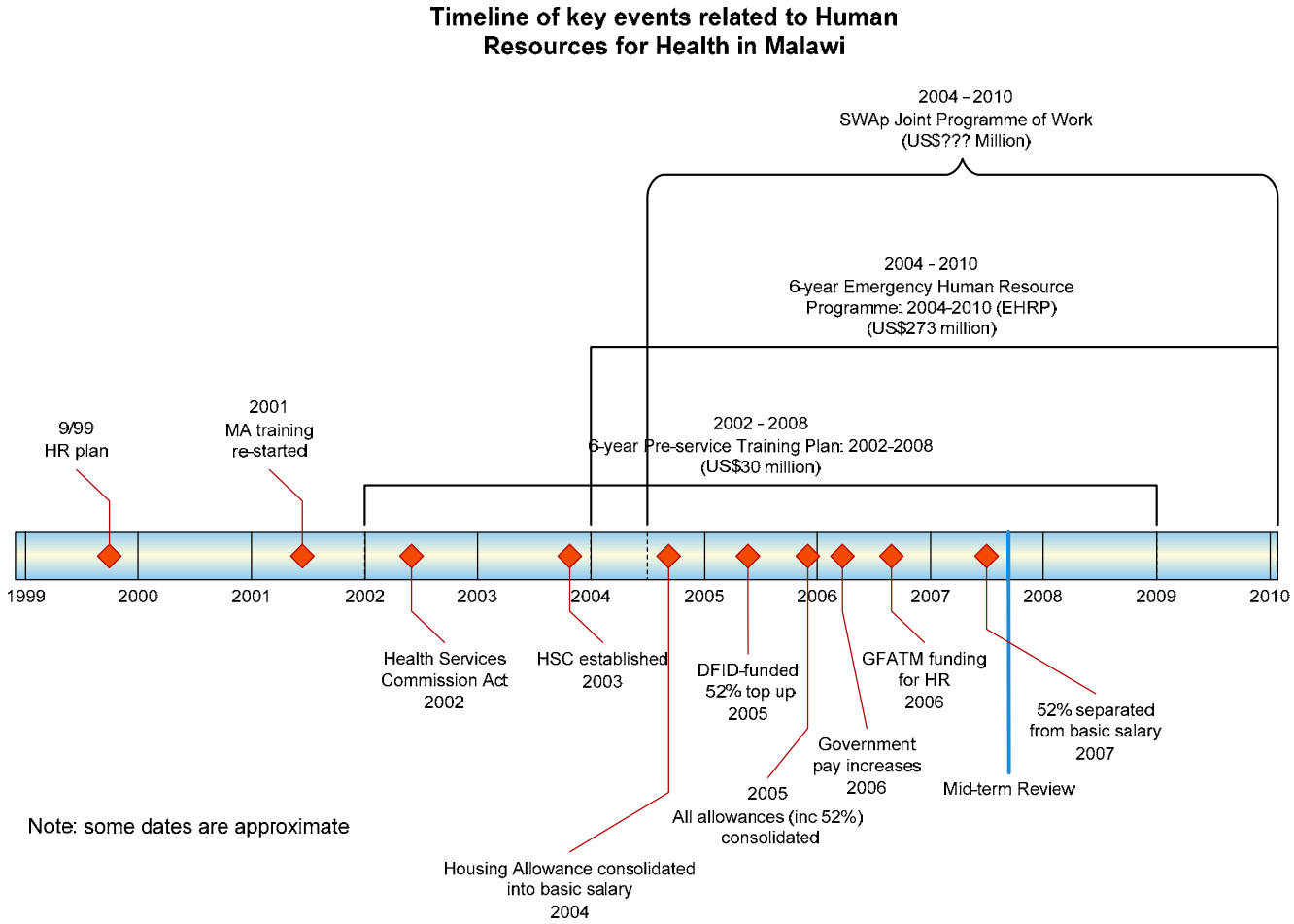
Seloilwe et al (2005). Kamuzu College of Nursing External Evaluation report. 1-10 August, 2005.

Vujicic, M. and P. Zurn (2006). "The dynamics of the health labour market." Int J Health Plann Manage **21**(2): 101-15.

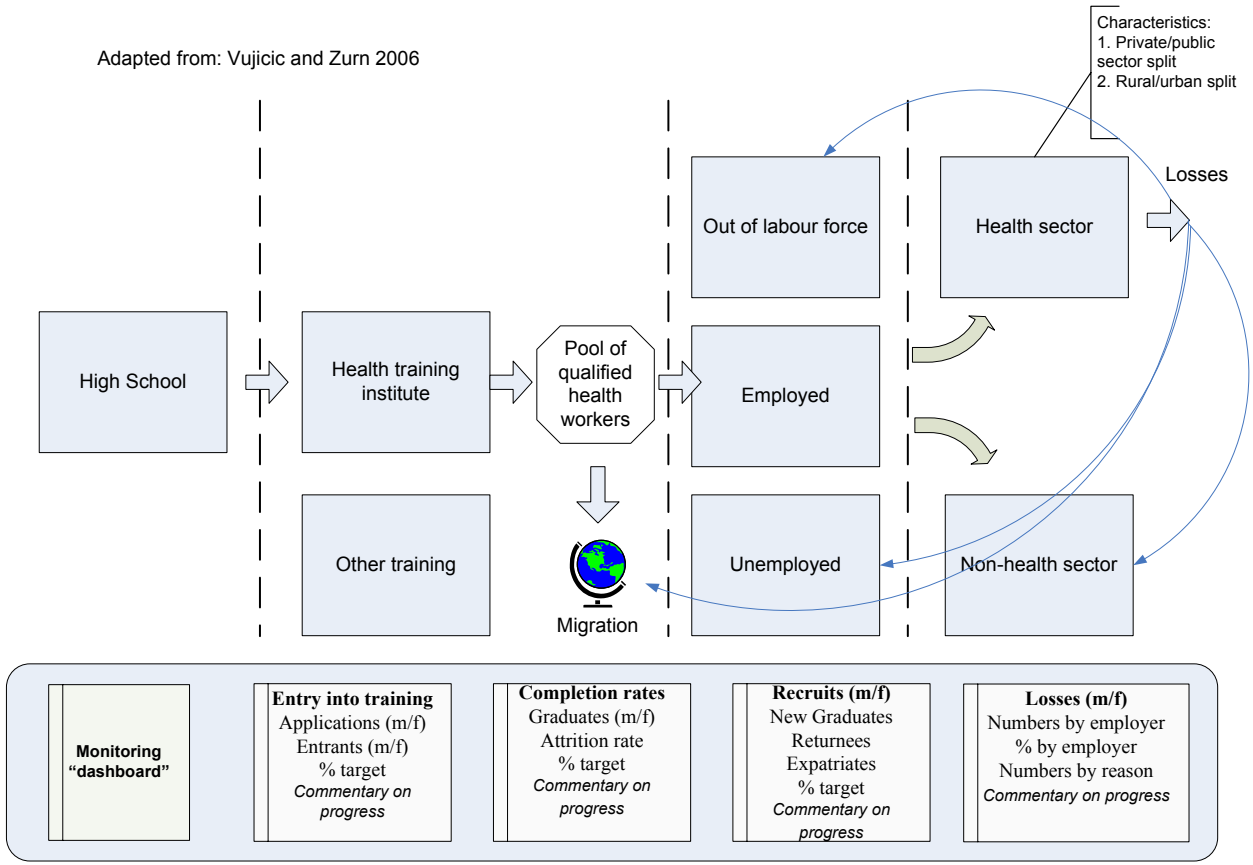
WHO (2005). Malawi College of Health Sciences. External Evaluation Report: 1-5 August 2005**:** 11pp.

World Bank (2006). Human Resources For HEALTH: AFRICA Concept Note.

Appendix HR 3: Timeline of key events



Appendix HR 4: Labour market diagram



Appendix HR 5: Possible structure for HRH strategic framework

Introduction and context
Assessment of staffing situation at currently known
- progress made
- challenges known and unknown (programme scale up; DC)

Purpose and Scope of framework
- to be creative (strategy), consolidate, coordinate, get value-added from individual initiatives, but not control
- link to POW

Broad strategic directions:
- expand workforce
    - pre-service training expansion
    - improve attraction and retention
    - improve distribution
- develop performance culture
- manage process of change (e.g. decentralisation)
- develop and strengthen strategic and operational[73] HR functions

Monitoring framework with indicators

Description of current and planned elements of the framework[74] under broad strategic direction[75] (could include in a volume 2 or as annexes
Identification of planned element e.g. workforce plan

Funding table – funding assured and current gaps

Risk analysis

Annexes:
- Proposed modification of AIP for 07/08
- Contributions to AIP 08/09 (both include work plans to develop element of the plan)

[73] Eg for districts
[74] For example the 6-year pre-service training plan or the future workforce plan
[75] The full plans could be included in annexes or a companion document that is updated as these plans are developed or modified

ANNEX 9 Economic and Financial Management

MALAWI HEALTH SWAP MID-TERM REVIEW
ECONOMIC AND FINANCIAL MANAGEMENT REPORT

Authors: Geoff Hoare, Fenwick Chitale and Ingvar Theo Olsen

November 2007

1. Introduction and Background

1.1 Introduction

This section of the MTR summarises the findings, conclusions and recommendations of a sub group of consultants reviewing the first three years of implementation of Malawi's health sector SWAp from an economic and financial perspective.

1.2 Methodology

The methodology for this report comprises a combination of interviews, fieldwork, document review, and an analysis of secondary data sources. The work was conducted by a team of three consultants comprising two health economists and one financial management specialist, and was conducted over a three week period in August and September 2007. Although each member of the team has taken the lead role in addressing different parts of the TORs, their respective inputs have been synthesised to produce this single report dealing with economic and financial management issues.

Details of persons consulted, field visits made, and documents reviewed are presented as appendices to this report.

1.3 Background and Context to the MTR

This review takes place mid-way through the implementation of a 6 year sectoral plan for health that represents an important departure from previous plans. From an economic and financial perspective, Malawi's adoption of a health sector strategic plan based upon a sector wide approach embodies several key principles and objectives. These are briefly listed here in order to shed some insight on the expectations of the MTR team regarding progress and achievements under the SWAp.

- An explicit prioritisation of scarce health sector expenditures based upon an "affordable" package of essential health interventions of proven cost effectiveness (EHP) delivered using standardised treatment protocols.
- The alignment of government, development partners and CHAM facilities behind a single strategic and operational plan for the health sector, based upon and common ways of working.
- A reduction of management overheads and other transaction costs through the adoption of (various degrees of) pooled funding and the use of common monitoring, evaluation, and reporting formats.
- Better integration of strategic and financial planning at central and district levels through the adoption of rolling 3 year expenditure frameworks (MTEFs) and indicative budgets allowing for greater certainty in medium term planning.
- A reduction of health inequalities through the use of explicit resource allocation criteria and other pro-poor measures so as to reduce disparities in health inputs, health utilisation rates and health indicators.
- Improvements in health service accessibility through measures designed to improve coverage and to reduce the financial and physical barriers to utilisation particularly for key services such as reproductive health (e.g. through innovative contracting arrangements with non-government health providers funded out of the district recurrent budget).

- A strengthening of monitoring and evaluation systems and the development of indicators that permit the effective tracking of programme progress against indicators of achievement and in relation to resources used.

After three years of operation of the SWAp, progress in each of these areas can be argued to have fallen short of expectations, in some areas, significantly so.

- From the outset of the SWAp in 2004, full coverage of the "Essential Health Package" and POW was recognised to be unaffordable and the 6 year budget for the PoW was set at less than half of the US$ 1.5 billion originally estimated. However, despite delays in implementation and problems of absorptive capacity in the health sector, a process of "POW creep" has occurred over the last 3 years whereby new or additional activities have been added to the POW. Neither the full extent of this "creep" nor its cost implications has been fully documented. It comprises changes both in the scope and in the scale of planned activities. In other words, new activities have been added to the programme of work (e.g. ART, malaria, and HSAs) at the same time as existing activities have been scaled up. Alongside these changes have occurred changes in the price of key inputs, not least health personnel and drugs.
- It is not clear that the EHP has become the central pillar of the health care system as envisaged. During district visits, some staff at government and CHAM facilities were not clear as to the content of the EHP.
- Although several development partners have signed up for pool funding others continue to operate alternative funding modalities, with their associated higher transaction and management costs.
- Whilst there exists a unified monitoring and evaluation system for the SWAp, it is not closely adhered to, and is deficient in respect of key economic and financial indicators (there is for example, no indicator for the % of the health budget spent on the EHP, or any indicators allowing equity improvements to be tracked over time).
- Neither districts nor the CHAM providers funded out of the district ORT budget are enjoying the degree of financial certainty hoped for. The Ministry of Finance is not providing sufficient advance guidance as to future financial ceilings on the planned three-year period as per the MTEF, and in reality, MOH indicative budgets are only known at a very late stage. At the same time there is evidence of significant delays in the reimbursement of CHAM facilities for work undertaken on behalf of the Ministry of health district offices.
- Equity considerations seem to have been overlooked during the first half of the SWAp. During this time the process of resource allocation has become less transparent, and there has been little progress in developing a long term equity strategy that encompasses all health resources.
- Coverage and accessibility improvements are marginal and tenuous. Service Level Agreements have been agreed for parts of the EHP but not for the full EHP as originally envisaged. Although CHAM appears to have taken the lead in negotiating SLA's there is a danger that their initial enthusiasm may wane. Not least due to delays in the reimbursement of their claims by the MOH.

With these contextual issues in mind, the rest of this annex addresses the specific ToRs pertaining to economic and financial management issues, highlighting the various factors impeding progress and contributing to adverse outcomes.

In order to promote readability, the annex is structured under two broad headings, namely:

- Financial Capacities, Systems and Practices, and,
- Weak Linkages between Strategic Planning and Financial Planning.

It is argued that problems in the above areas have impeded progress in the achievement of two of the Ministry of Health primary strategic objectives, namely:

- Improvements in accessibility and coverage; and,
- Progress in a reduction of inequality and a demonstrably pro-poor use of scarce health resources.

Having presented the evidence for this diagnosis, the annex makes a number of recommendations designed to improve financial planning and management in the health sector, and to contribute to greater efficiency, effectiveness and equity.

2. MoH Financial Capacity, Systems and Practices

2.1. Introduction

The Malawi health sector is widely known to suffer from deep-rooted and long-standing problems in financial systems and practices and a significant deficit of sufficiently skilled and experienced financial personnel. These problems were apparent to both the MoH and development partners when the SWAp was being designed, and were the subject of various financial management improvement plans incorporated into the SWAp POW. The MOH maintain that significant progress has been achieved in financial management since the start of the SWAp, although concede that evidence for such improvements is limited at present. The MTR team acknowledge that some progress has been made since the start of the SWAp, but take the view that the rate of progress may be too slow for some donors who have good reason to be concerned by issues raised in a series of internal and external audit reports.

The SWAp approach in Malawi depends on progress being achieved in financial management reform. Without reform at a suitable rate, new pool funders may be difficult to attract. Existing funders may ask for increased thoroughness and frequency in the external examination of SWAp finances, leading to a rise in transaction costs for all partners. Although there exists a difference of opinion between the MTR team and the MOH as to the rate of reform that has been achieved to date, it is also clear that many SWAp partner are concerned about financial management and the slow progress in implementing the financial management improvement plan. It is important that all SWAp partners put their weight behind ensuring that the financial management improvement plan is a credible plan, supported by all partners, that it takes into account the critical findings from recent audits and this review, and that progress on implementing the plan is accelerated and is closely tracked against milestones to the plan.

2.2. District Level Planning and Budgeting

The annual budgeting process for health comprises elements of a “top down” and a “bottom up” process. Each district is a cost centre in its own right, with the DHO the designated budget holder all for all district services including the district hospital and all primary health care facilities. It should also be noted that district financial planning relates only to “Other Recurrent Transactions” (ORT). Drugs are allocated centrally on a basis largely determined by past utilisation rates, whilst PE is largely reduced to a payroll function, so that districts cannot choose to reallocate resources between staffing costs and other operating costs, even at the margin. Although routine maintenance is provided for in the ORT budget, districts have little or no input into the capital programme, even though they are subsequently responsible for the recurrent costs of capital investments made on their behalf by MoH HQ.

Unfortunately, this fragmentation is reflected in expenditure reporting. Although this issue is discussed in more detail later in this report, it has proved exceedingly difficult to get comprehensive expenditure reports for the whole SWAp period at the required level of disaggregation. Some reports omit PEs or drugs, whilst others include the latter but only report other expenditures at a high level of aggregation. This is a serious problem as it makes it more difficult to undertake routine cross-sectional and longitudinal analysis of financial data.

Planning at district level is undertaken using the District Implementation Plan (DIP) guidelines provided by the SWAp Secretariat. Similar guidelines exist for the Central Hospitals. The DIP guidelines are used to produce annual workplans and budgets subject to the financial ceilings communicated by the Office of the Accountant General and the policy guidelines laid down by the MOH. The DIP guidelines are accompanied by a very detailed Excel Workbook that requires districts to detail their planned activities and the resource inputs and cash flow

required to implement those activities. The process is rigorous and it does impose a needed sense of discipline on the costing side.
Unfortunately, and as will be discussed shortly, the process is based on the traditional budget heads of the MoH, so that it is difficult to link budgets to the SWAp POW, not least the delivery of an integrated EHP. The result of this detailed planning exercise by Districts is a budget proposal disaggregated by line items (i.e. inputs) and around 10 or more programmes or sub-programmes, none of which sits easily with the POW structure.
A further complication is that the process of district planning is often hampered by delays in the communication of budget ceilings. According to the budget cycle guidelines, district financial planning should be informed by financial ceilings communicated by the MoF through the district assemblies in January. When the ceilings are released to the assemblies the District Commissioner approves the budget and forwards the proposal to MoF with copies to MoH and MoLG.

However, the ceilings are often not provided until much later, sometimes in April or May, requiring very late cuts in district budgets and adjustments to their annual workplans. These cuts are often made arbitrarily by the MoF without reference to districts, so that the first they know about the cuts is when they receive their annual budgets. One result of these delays is that the planning and budgeting in the assemblies is often done based on assumptions of a small uplift on the previous year's budget rather than with advance notice of the actual ceilings.

In theory, district planning and budgeting is a participative exercise. The district health management team (DHMT) and other stakeholders are said to be involved at different levels, including staff at the health centres who contribute by expressing their needs. NGOs may contribute by providing information and engaging in discussions about their planned activities. Whilst some DHO's may engage local stakeholders in the budgeting process the average level of participation may be much more limited in practice.

The planning and budgeting process is also perceived by some DHMTs as tedious and time consuming, not least because the structure of budgets does not sit easily with the 6 pillars of the SWAp. As already noted, the DIP guidelines entail the calculation of district resource needs under many different budget programme heads and this is the basis on which spending authority is delegated to the DHO. In practice many districts appear to disregard the regulations relating to virement and reallocate spending without prior approval as if the allocation were a block grant. This makes it difficult to determine whether a particular activity has taken place and at what level it has been funded. From a DHO's perspective this practice allows a high degree of flexibility in use of funds and is consistent with the long term process of decentralisation already underway. However, the current unregulated use of virement contravenes government regulations, and makes the current process of district planning somewhat redundant.

2.3. Accounting Systems

From the outset of the SWAp the GoM's own financial management systems have been used to record expenditures. This has probably resulted in a higher level ownership of the program than would otherwise have been the case. The use of various degrees of pooled funding combined with monthly district expenditure returns has undoubtedly improved the flow of funds for the PoW. However, there exist a number of problems with the GoM's systems that require improvement. These include the reconciliation of accounts with the Central Governments records of income and expenditure, missing documents and lack of some basic accounting controls at the cost centres.

A series of field visits by members of the MTR team provided the opportunity to observe financial practice in the districts at first hand. The MoH has been used as pilot for the roll out of its computerised system (IFMIS) since November 2005. That roll out is only partially completed with IFMIS installed in at MOH HQ as well as its Central Hospitals, though not yet to the Districts. Before IFMIS was rolled out to the MoH the SWAp used manual systems to record transactions. Field visits to DHOs confirmed that the districts are still reliant on manual systems, albeit supplemented by more recent computer additions. Approved budgets and authority to spend are captured in various vote books, whilst transactions under each vote are recorded in respective commitment ledgers. A serial list of all transactions is also kept. Whilst somewhat archaic, these manual systems are tried and tested, and familiar to all working at the district level. Properly adhered to, they should ensure that resources are spent for approved purposes and that spending does not exceed ceilings under any expenditure head or subhead, unless the responsible officer has received prior authorisation for virement from the Treasury. The MTR team feel that these control systems have been compromised with the transfer of administrative and financial responsibility to districts. Salima and Dowa District financial records were scrutinised by the team, in which several virements had been made. However, no evidence was provided to the MTR team that either district received the necessary authorisation. One can only speculate on the reasons for this breakdown of control. One possibility is that district administrators, lacking any real health experience, are deferring to the judgement of the DHO's and allowing them a degree of financial discretion they have not hitherto experienced under MoH control. Virement authorisations are available for transactions in other districts, though the MTR team did not have the opportunity to examine these other districts records during the review period.

These manual systems are supplemented at district level by a customised MS Access database. This computerised database allows district financial staff to enter their monthly transactions and produce individual monthly and cumulative expenditure returns according to the respective government accounting codes. Under the main cost centre of Health and Social Services, this system provides sub-totals of expenditures under the following GoM programme and sub-programme heads:

- Administration and Support Services
    - Management and Support Services
    - Computerised Information
    - HIV/AIDS in Workplace
- Curative Health Services
    - Primary In-Patient Services
    - Secondary In-Patient Services
    - Primary Ambulatory Services
    - Secondary Ambulatory Services
    - Primary Medical Diagnostic Services
    - Secondary Medical Diagnostic Services
- Environmental Management
    - Health Management Information Services
- Infrastructure Development Rehabilitation and Maintenance
    - Primary Health Infrastructure Development Services
    - Secondary Health Infrastructure Development Services
- Manpower Development
    - Human Resource Management Services
- Media and Information
    - Health Education Services
- Nutrition and Food Security

    - Nutrition Services
- Planning Services
    - Health Planning Services
    - Monitoring and Evaluation
- Preventive Health Services
    - Disease Control Services
    - Community Based Health Services
- Research, Technology Generation and Development
    - Research and Library Services
- Technical Services
    - Technical Services

One curious anomaly is that not all of these programmes or sub-programmes operate in each district. The basis for inclusion is not self-evident as one assumes that most if not all the basic functions must be undertaken even if an accounting code and budget does not exist. It may well be a simple case of historical precedent as to the codes now in use. Alternatively, it may be because of special programme activities undertaken in specific districts. Whatever the explanation, it makes it difficult to compare expenditure profiles across districts, except at the aggregate level or on the basis of line items (i.e. inputs).
Each district sends a monthly printout of the expenditure returns from the MS Access database to the MOH finance section, along with a photocopy of the district's cash book showing its monthly transactions in detail. The finance section in the MOH operates the same MS Access database program as the districts, albeit covering all districts and other MOH cost centres. Even though the Access database is of relatively recent design, the data from districts cannot be imported into the MoH database electronically but must be entered manually from the printed returns. Discussions with staff in the MoH finance section responsible for the database indicates frequent discrepancies between figures on the printed returns and those calculated from the cash book photocopies.

Aside from limitations on the input side, the MS Access database is further limited in outputs (i.e. the reports in can produce). One format allows for reporting by the standard GOM accounting codes. Another format allows the same expenditures to be expressed according to the 6 SWAp Pillars. Other than that, customised reports can only be produced, it seems, by exporting data to a spreadsheet and manipulating it using pivot tables or other data handling tools.

Some concerns must be expressed above the validity, reliability and accuracy of the data being recorded. A small sample of data collected during district field visits (i.e. the monthly printed returns) were checked against the figures held in the aggregate MOH database and several differences were noted between the two sources. Given that the monthly returns are calculated from the cash book entries it would be much simpler if districts were to send an Excel file containing the transactions for each month. It would be a simple process thereafter to merge the files from all districts, and other MOH cost centres to produce the aggregate monthly reports. If district finance staff could be persuaded to work with their colleagues to code their monthly transactions in accordance with the coding being developed as part of the revised chart of accounts, their expenditures could be analysed to yield important management information.

2.4. Financial and Activity Reporting Under the SWAp PoW

Many of the problems of expenditure tracking noted in this report stem from limitations of existing government accounting systems. A particular problem has been the inability of those

systems to record programme expenditures according to key costs centres (i.e. to link programme inputs to programme activities and outputs). Some insight into the problem can be gleaned from the following table, which indicates how the classification of expenditures used by the GoM is converted into the SWAp format.

Table 1: Transcoding of GOM to SWAP expenditure categories

GoM Expenditure Description	GoM Code	(Sub-Item/Item Description)	SWAp POW Code
compensation of employees	10.01	Salaries of Established Staff	1.1
	10.02	Salaries of Non Established Staff	1.1
	10.03	Temporary Employment	1.1
	10.04	Ministers Salary	1.1
	10.05	Member of Parliament Salary	1.1
	10.06	Traditional Authority/Village headman	1.1
	10.07	Professional Allowances	1.1
	10.08	Housing Allowance	1.1
	10.09	Special Medical Allowance	1.1
internal travel	21.01	hiring costs	5.5
	21.02	transport claims	5.5
	21.03		5.5
	21.04	subsistence allowance	5.5
	21.05	hotel charges	5.5
	21.06	fuel and lubricants	5.5
	21.07	maintenance of motor vehicle	5.5
	21.08		5.5
	22.01		1.2
	22.02		1.2
	22.03		1.2
public utilities	23.01	heating and lighting	5.3
	23.02	telephone charges	5.3
	23.03		5.3
	23.04	telex and telegraph charges	5.3
	23.05	water and sanitation	5.3
office,supplies and equipment	24.01	computer expenses	5.1
	24.02	consumable stores	5.1
	24.03	maintenance of plant and office equipment	3.1
	24.04	postage and postal charges	5.1
	24.05	printing costs	5.1
	24.06	publication and advertising charges	5.1
	24.07	Stationery	5.1
	24.08	uniform and protective clothing	3.2
	24.09		5.1
	24.10	hiring of security services	5.1
	24.11	hospitality expenses	5.1
medical, supplies and expenses	25.01	drugs, vaccines and pharmaceuticals	2.1
	25.02		2.2
	25.03		3.1
	25.09		3.2
rent expenses	26.01		5.5
	26.02		5.5
	26.03	rent of dwelling units	5.5
education materials and expenses	27.03		5.5
	27.04		5.5
training	28.01	internal training	1.2

	28.02	external training	1.2
acquisition of technical services	29.01		4.1
	29.02		4.1
insurance expenses	30.01		5.1
	30.02	insurance of government vehicles	5.1
	31.01		5.2
food and rations	32.01	rations and provisions	5.2
other goods and services	33.01	hosting of international meetings	5.5
	33.02	Loss of public money	5.5
	33.03	Public Assistance	5.5
	33.04	Licensing	5.5
	33.05	Bank Charges	5.5
	33.06	Deportation and repatriation	5.5
	33.07	Purchase of ammunition and explosives	5.5
	33.08	Student allowance	5.5
	33.09	Uniform Allowance	5.5
	33.10	Field Allowance	5.5
	33.11	Other domestic allowances and benefits	5.5
	33.12	Leave Grant/Disturbance allowance	5.5
grants and subventions	40.01		6.1
	40.02	Subscriptions	6.1
	40.03		6.1
formation and maintenance of capital assets	41.01		4.2
	41.02	maintenance of boreholes	4.2
	41.03	maintenance of buildings	4.2
	41.04		n/a
	41.05		n/a
	41.06	maintenance of water supplies	4.3
	41.07		n/a
	41.08		4.1
	41.09	construction of buildings	4.1
	41.10		n/a
	41.11		n/a
	41.12		n/a
	41.13		5.4
	41.14		n/a
	41.15	purchase of plant furniture and equipment	3.2
	50.02		6.1

This represents graphically how inputs coded at district level using the government accounting system are re-coded by the 6 pillars of the SWAp POW. In effect the coding simply groups resource inputs by type under the GOM system and reassembles them, again by input type under the SWAp PoW. This is why the expenditure financial reports currently being produced have concentrated on the inputs and on what was purchased for the PoW. Although there are some omissions in the table there is sufficient detail to see the limitations of the coding system.

These types of reports are not informative enough, and it is surprising how little information the PoW format provides. SWAp reports do not readily allow link inputs and expenditures to be compared to outputs or impacts. During the period under review there have been no reports produced that link the reported expenditures to the physical progress of the specific activities that are being funded. The lack of these kinds of reports is a serious weakness because the impact of the funding under the SWAp for the last three years cannot be measured. It is strongly recommended that in addition to the financial expenditure returns that

are produced, serious consideration be given to the production of reports that will measure the impact which should be monitorable so that at the end of the program it is possible to measure whether the objectives of the SWAp were achieved or not.

The format used to present the SWAp in the MoU is essentially the same mechanism used for reporting physical and financial progress under the PoW. Each Annual Implementation Plan (AIP) listed PoW outputs under the 6 Pillars of the PoW and the activities to be carried out to achieve those outputs. The AIP also includes cost estimates (i.e. budgets) for the individual activities in each year's workplan although the basis on which these costs are calculated is seldom clarified. Unfortunately, limitiations in the GoM accounting system mean that budgeted costs are not routinely compared to actual expenditures because the latter are only recorded at a higher level of aggregation.

Another problem is that activities in the SWAp programme comprise a curious mixture of recurrent budget support and other "one-off" development activities with significant long term recurrent consequences. For example, the initial training of new health workforce recruits entails not only the "one-off" costs of training per se, but also the long term costs of permanent and pensionable employment. Although it is possible to get accurate figures for total expenditures under the PoW, the bottom line is that it is difficult to discern the long term effects of PoW activities on sector costs. It is also almost impossible to determine whether the budgeted costs of PoW activities are accurate since costs are only reported in the aggregate. In large part, the problem stems from the PoW design and the adoption of the 6 pillars which to all intents and purposes are input classifications rather than output oriented.

The MOH recognises these limitations and has been working with the Accountant General's office and the Budget Section of the Ministry of Finance to revise the Government of Malawi's Chart of Accounts (CoA). This will allow the GoM system to be better able to deal with the requirements of development partners for multiple expenditure reporting formats, and particularly those of the SWAp POW. The various classifications possible under the proposed new CoA are also being incorporated into the government's new computer-based accounting system IFMIS. By the time IFMIS is rolled out to the districts it will be possible to code expenditures according to multiple classifications, including the six programme areas of the SWAp.

A multipart accounting code will allow for the following classification:

- By sector
- Buy votes, head or departments
- By account type (ie recurrent or development expenditure)
- By cost centre
- By programme or sub programme
- By donor and/or by project
- By objective
- By target
- By activity
- By performance
- By GFS classification
- By item
- By sub item

This multifaceted coding capacity is a huge improvement over the current situation whereby only item and sub item codes are used to translate GOM expenditures into SWAp expenditure reports.

Whilst the new chart of accounts and its assimilation into the IFMIS system is a definite step forward, it will still take some time to familiarise and train district level accounting staff to undertake the relative coding at the transaction level. Ideally, work should be starting now to develop the capacity of district staff to code expenditures according to the new chart of accounts and by whatever program classification is used for the next round of the SWAp. Although the new CoA has been developed with the current PoW structure in mind it is sufficiently flexible to meet the needs of any programme design. It is also hoped that by the time of a new SWAp, that the MoH will have moved on from the current input oriented classification of expenditures that comprise the six pillars of the POW to one more aligned to programme objectives and outputs.

2.5. Conclusions and recommendations

There appears to be a widespread appreciation of the extent of the problems faced within the health sector with regard to financial planning, budgeting and reporting. To some degree, the problems are characteristic of an environment of rapid change and partially completed reforms. However, a greater sense of urgency is required in order to address the problems highlighted in numerous reports and confirmed by interviews and field visits.

- The DIP guidelines should be updated so that service planning is more closely aligned to the objectives and outputs of the SWAp PoW (e.g. delivery of the EHP)
- The financial sections of the DIP should be updated so that budgeting is more closely aligned to planned activities and outputs.
- DHO holders need to be reminded of standing financial regulations and of the need to secure prior approval for funds virement.
- The MoF should be lobbied to provide earliest notification of financial ceilings to districts to enable proper planning and budgeting to be undertaken
- Once finalised, the new Chart of Accounts should be circulated to all cost centres and budget holders, and a process of orientation training begun so that relevant staff are competent in financial coding by the time IFMIS is introduced.
- The MoH should be giving thought now to the type of financial and physical progress reports it would want to see in the future.
- Financial reports should include formats that cover all sector expenditures so as to allow for cross-sectional and longitudinal analysis
- Accounting and financial reporting systems should be revised so as to permit inputs to be better linked to outputs, particular in respect of the SWAp pillars The MoH should start work now to develop a structure for the next SWAp that will allow programme activities and outputs to be better linked to expenditures.
- Future expenditure classifications should facilitate the “flagging-up” of activities with significant recurrent implications
- The MoH should explore ways of involving districts more in the capital investment plan, not least because of the recurrent cost consequences for districts of decisions currently being made on their behalf.

3. Disbursements and Accountability for Funds Under SWAp

3.1. Introduction

Under the SWAp the flow of funds has improved, both from the DPs to the Reserve Bank as well as from the Treasury to MoH cost centres. All of the Central Hospitals and DHOs visited reported positively about the improved flow of funds since the start of the SWAp, noting that greater consistency and predictability have had a positive impact on their operations. Whilst this is clearly a positive development it is important to note that the period immediately before the SWAp was a low point in health sector funding.

One criticism of funding practices raised during the district visits was that disbursements do not necessarily reflect the annual cash flow projections that districts are obliged to produce once the budget has been approved. It appears that districts are unclear as to the basis by which the Treasury determines how much each cost centre should receive. Nevertheless, once the amounts are determined, the monthly funding is usually fixed for most of the time during the fiscal year. There have been instances however, when higher amounts are released in the last quarter of the fiscal year with obvious adverse consequences. The pressure to spend the funds before the end of the fiscal year may in some cases result in short cuts to the procurement process, with the inherent consequences of funds not being spent for intended purposes and lack of economy and efficiency. For these reasons, the treasury should endeavour to provide funding more evenly throughout the fiscal year or corresponding to the district cash flow projections.

3.2. Flow of Funds Within Districts

In contrast to the flow of funds to districts, the flow of funds within districts has been less smooth. District hospital staff are not always involved in budgeting, and in any event, the district hospital is not a cost centre in its own right so that its operational budget is consolidated with that of the DHO. For example, the CO in charge of Mponela Rural Hospital in Dowa district was not able to share with us the budget proposal submitted to the DHO, and, worse still, seemed not to know the approved budget provision for the three years of the SWAp.

Mponela Hospital staff also complained of delays in the supply of foodstuff bought centrally by Dowa DHO. Delays were frequent and meant that the patient's diet had been somewhat monotonous for the previous two months (i.e. Nshima with cabbage for more than a fortnight). Hospital staff proposed that due to the persistent delays, the MoH should allow them to control the food budget as is currently the case with ORT. Aside from delays in delivery, it was claimed that the food budget did not meet the hospital needs, either in terms of number of patients admitted or the agreed menu. A more realistic budget for the ORT was proposed (i.e. K2 million per month compared to the current allocation of K 1.3 million). This raises questions of resource allocation practices within districts which will be considered in more detail shortly.

3.3. Flow of Funds to Subvention Bodies

The MOH makes block contributions to the College of Medicine and CHAM. It has a contract with the College of Medicine for infrastructure development, involving the construction of the Laboratory and the Library at the Campus for MK 279,864,581 (dated 10 November 2005). The CHAM contract is for US $ 2,083,000 to access funds under the SWAp. The College of Medicine has not received any funds since December 2006. CHAM has not accessed the funds that were allocated as part of the Financial Management Improvement Plan when the SWAp started, and MoH and SWAP Secretariat have not provided convincing explanations. It emerged that the college and CHAM have not been submitting financial and progress reports

on the funding that has been provided to them as required by the Memorandum of Understanding and the individual contracts with the MoH. The college cited the lack of guidelines from MoH and SWAp secretariat about the types of reports that they are required to produce while these are included as part of the annexes to the contracts. On the whole it is lack of monitoring by the SWAp Secretariat and MoH whose responsibility it is to check compliance.

3.4. Flow of Physical Resources Within Districts

Observations of stock management during the field visits confirmed anomalies highlighted in numerous reports. Mponela Hospital lacked adequate space storage of stocks so that food stuffs were kept in the office of the accounts assistant. Stocks were released without any stores control system so that it was impossible to keep track of their usage. For example, a food delivery to Mponela on 24 August 2007 was on a delivery note that was raised from a duplicate book without a unique pre numbering for control purposes. The delivery note was hand written from Dowa DHO to Mponela Rural Hospital. It had no date but it indicated the issuing officer's name and the initials of the officer who collected the items. Deficiencies in stores control documention and the lax control over stocks of general stores and drugs are repeatedly cited in all the reports of the internal and external auditors, indicating that this is a systemic problem affecting all the cost centers. The effects of this are that funds are prone to misuse as there is no system that will hold anybody accountable. Therefore, in these situations funds it is impossible to conclude that the funds were used exclusively for the purposes intended. There is extreme urgency for the MoH management to address these short comings by instituting stores control systems that will make all those involved at every stage accountable.

3.5. MOH Audit Reports

Serious financial management accountability issues have been highlighted in a series of external and internal audit reports (i.e. reports for the fiscal years ended 30 June 2005 and 30 June 2006; the mid-year financial systems audit to 31 December 2006; and, the Internal Audit reports). Problems include non-compliance with the Public Finance Management Act, the Public Procurement Act and the SWAp Memorandum of Understanding. Many of these problems relate to poor record keeping which manifests itself in missing documents; a failure to check/approve bank reconciliations; a failure to follow-up on long outstanding reconciling items; and a lack of documentation to establish the basis on which contracts were awarded to the suppliers. Whilst the external auditors report improvements in some areas, in others progress is slow.

In the two audit reports received for fiscal years 2004/5 and 2005/6 (i.e. the first two years of the SWAp) the auditors gave qualified opinions which meant that they were not fully satisfied. The qualified audit opinion in 2004/5 was due to long outstanding reconciling items on the Bank reconciliations and the non confirmation of funds by discrete donors. In 2005/6 the qualification was because balances could not be confirmed by Central Government and lack of confirmation amounts to the MoH by Ministry of Finance and some discrete donors. These qualifications are a source of worry as they indicate the underlying poor accounting controls.

The MOH's own internal audit echoes the findings of the external audit. It is especially critical of the lack of stores and record systems for drugs and general stores and the overall lack of accountability for these items. For example, a report on accountability of drugs and medical supplies at Queen Elizabeth Central Hospital in February 2007 revealed that: there were no records maintained for drugs amounting to MK 35, 609,996; there were drugs not recorded on stock cards to the value of MK 4, 573,438. Another report on accountability of drugs and

medical supplies by Central Medical Stores and District Health offices (dated August 2006) showed glaring anomalies in accounting for drugs in particular. Taken cumulatively, these findings appear to be typical of the situation in hospitals and DHOs nationwide. Given these anomalies and the general lack of accountability it is unclear whether funds spent are being used for their intended purposes, let alone with due consideration for economy and efficiency.

With the serious weaknesses identified in the accounting system for drugs and general stores, it is recommended that the MoH as a matter of urgency should produce a time bound strategic plan with milestones on how to strengthen the whole stores accounting system.

Staff shortages beset the MoH internal audit as they do the rest of the ministry. Whilst the internal audit is doing a commendable job with skeleton staff of 4 against approved establishment of 7, vacant posts need to be filled with appropriately qualified staff. Moreover, the unit requires targeted training in such techniques as risk based and value for money auditing.

Table 2: Ministry of Health Internal Audit Unit - Approved Establishment

Title of Post	Grade	Establishment No. of Posts	Number Currently Filled	Positions Vacant
Controller of Internal Audit	P4	1	0	1
Chief Internal Auditor	P5	1	0	1
Principal Internal Auditor	P7	2	1	1
Internal Auditor	PO/CEO	1	1	0
Assistant Internal Auditor	EO	2	3	-1
Total		7	5	3

With the Establishment Warrant No. 27 of 2006/07 dated 14 March 2007 having been given by the Treasury, MoH should ensure that the positions are filled expeditiously. Simultaneously, the skill mix within the unit should be re-considered as the approved establishment seems rather "top heavy" (see table 1 below). There may be a compelling case to have more numbers at P7, PO/CEO and EO, as it is these levels that carry out the actual field work. With the same position of Chief Internal Auditor available at the Central Internal Audit Unit at the Ministry of Finance, it may not be ideal to have the same post with the same grade at the MoH level.

3.5. Financial Management Improvement Plan (FMP)

A review of the progress made on the implementation of the existing FMP indicated that not all of the agreed activities were undertaken. Particular problems were experienced in the recruitment of staff, provision of training and production of a multiyear internal audit plan. The status of FMP progress at the time of the review is presented as appendix. For some activities there are differences in the MoH headquarters and CHAM Secretariat accounts of what was done for CHAM. According to CHAM most of the activities on the improvement plan have not been implemented due to lack of funding from the SWAp Secretariat

A new FMP is being produced consisting of activities brought forward from the previous plan, although it does not currently address some of the serious concerns already expressed regarding stores and supplies management. The new plan will need to respond fully to the seriousness and magnitude of the accounting weaknesses that have been identified. It should include a comprehensive training plan that identifies the staff to be trained; the type of training required (which should indicate the specific issues to be covered); the location, timing and

duration of training; and, the training resource persons required. If capacity is a constraint consideration should be given to outsourcing this function.

3.6. Summary and Recommendations

This section of the report has highlighted numerous problems with existing financing systems. Some of these problems are rooted in a shortage of skilled financing staff, whilst others indicate weaknesses in the underlying financial systems and procedures. The problems are for the most part, well known to the MoH, and measures are in place to try and address them. However, the pace of progress is too slow and more resources are required to accelerate implementation of much needed reforms.

Specific actions to be taken by the MoH and its partners includes the following:

- Implementation of the Financial Improvement Plan should be accelerated
- The MoH's accounting and financial management capacity should be strenghtened by filling key vacancies with suitably qualified and experienced staff, particulary at the district level.
- The MoH Internal Audit needs to be strengthened by filling vacant posts with suitably skilled and experienced candidates..
- District financial planning and budgeting systems should be realigned to better reflect the objectives and outputs of the SWAp PoW. A particularly urgent requirement is to be able to disaggregate expenditures on district hospitals from expenditures on district primary health care facilities.
- Immediate action should be taken to familiarise district staff with the coding possibilities of the new Chart of Accounts (CoA) so that the are ready to implement any new codings associated with a new SWAp
- The management of, and accounability for physical items such as drugs and stores needs to be improved, through the adoption of suitable stock control systems

4. Expenditure Analysis and Projections

4.1. Introduction

Strategic financial planning for the health sector entails a comparison of planned expenditure commitments against estimates of future sources of income (i.e. revenues), and the adoption of measures to reconcile the two in the event of a resource gap. A useful starting point is to review current expenditure plans and recent expenditure trends to analyse likely future costs.

4.2. Total Health Expenditure

Total health expenditure (THE) in Malawi was estimated at MK 26.21 billion in 2004/05 by the recent National Health Accounts study (NHA 2002-04). This includes all types of expenditure, public and private for all types of health services, and represents a per capita expenditure of about US$ 20. Government and donors contributed to US$ 16.9 of this. This is still far from the needs estimated by the Commission on Macroeconomics and Health of US$ 34 per capita, and still far short of the revised EHP cost estimates.

A detailed breakdown of actual expenditure by funding source over the first 3 years of the SWAp PoW is shown in presented below. This shows a doubling of the spending in nominal terms over the three years from MK7.31 billion in 2004/05 to MK14.01billion in 2006/07, and

excludes commitments. Only a minor share of this is from discrete funders. Whilst on face value, the spending increase is significant, much of this increase in nominal spend must be attributed to price increases, not least in staffing and drug costs.

Notwithstanding these price increases, the figures reveal that in certain areas there is a considerable underutilisation of funds suggesting relatively low absorptive capacity. Comparing the budgeted vs. the actual expenditure for the different pillars in this period, there has been an under spending on training of about MK 1 billion; drugs of about MK 1.6 billion; medical equipment of about MK 0.5 billion; and construction of health facilities MK 1.5 billion.

There is an under spending by the cost centres both relative to the POW budget and to the overall funding. The cumulative funding excess shown in the table below reflects this, where a total of MK 5.59 billion is unspent (including balances from earlier). Based on the 79% Government vs. 21% Donors shares for PE and the equivalent 55% vs. 45% for ORT according to the MoU, the under spending of Government funds is MK 4.30 billion of this whereas MK 1.29 billion is donor funds.

The unspent funds are kept in the SWAp account (MK 4.83 billion); discrete accounts (MK 9.67 billion) and GOM account (0.55). Funds in the SWAp account can be carried over from one year to the next, whereas it is not clear what the conditions are with other accounts.

Table 3: Total SWAp funding (billion MK)

	Govt (1)	Pool funders	Discrete funders	Total	POW (4)
2004/05	5.70	1.10	1.34	8.14	10.37
2005/06	8.64	6.70	0.27	16.08	15.62
2006/07	7.66	8.98	0.51	17.15	16.39

Table 4: Actual cost centre spending (billion MK)

	Pooled/ recurrent (2)	Discrete (3)	Total
2004/05	6.24	1.07	7.31
2005/06	10.80	0.98	11.78
2006/07	12.75	1.26	14.01

Table 5: Cumulative funding excess (billion MK) (5)

	Govt.	donors	Total
2004/05	1.95	-1.54	0.41
2005/06	4.01	0.14	4.15
2006/07	4.30	1.29	5.59

(1) Funding to cost centres. less transfers from SWAp a/c plus sundry

(2) Spending excludes commitments

(3) Excludes unbudgeted NAC and UNICEF

(4) POW at average exchange rates

(5) Based on Govt. 79% vs. Donors 21% shares for PE and 55% vs. 45% for ORT

A more detailed breakdown of planned and actual PoW expenditures in the first 3 years of the SWAp are presented in the two tables on the next pages.

Table 6 Income and Actual and Budgeted Expenditure for the SWAp PoW (2004 to 2007)

	2004/05			2005/06			2006/07			Total 2004 to 2007			
	Budget	Actual	Difference	Budget	Actual	Difference	Budget	Actual	Difference	Budget	Actual	Difference	Actual as %
Funding	MK millions	MK millions	MK millions	MK millions	MK millions	MK millions	MK millions	MK millions	MK millions	MK millions	MK millions	MK millions	of Budget
Pooled funding to cost centres:													
PE	2985.6	2416.9	-568.7	2358.3	3553.6	1195.3	3710.6	3828.3	117.6	9054.5	9798.8	744.2	108%
ORT	2362.7	2195.7	-167.0	7965.6	5312.8	-2652.8	6500.3	6310.1	-190.2	16828.6	13818.6	-3010.0	82%
Drugs	1484.2	1484.2	-0.0	2181.3	1847.5	-333.8	2441.9	2523.2	81.3	6107.4	5854.9	-252.5	96%
Total recurrent funding from MG1	**6832.5**	**6096.7**	-735.8	**12505.2**	**10713.9**	-1791.3	**12652.8**	**12661.6**	**8.8**	31990.5	29472.3	-2518.2	92%
ORT funding direct from SWAp FCDA			0.0		169.8	169.8	700.0	540.8	-159.2	700.0	710.6	10.6	102%
Drugs purchases from SWAp FCDA		94.9	94.9		254.3	254.3	0.0	1332.0	1332.0	0.0	1681.2	1681.2	
Drugs purchases by Donors			0.0		372.6	372.6	0.0	748.0	748.0	0.0	1120.6	1120.6	
Total Pooled funding to cost centres	**6832.5**	**6191.6**	-640.9	**12505.2**	**11510.6**	-994.6	**13352.8**	**15282.3**	**1929.6**	32690.5	32984.6	294.1	101%
Development funding - Donors (Part 1)	3716.8	1335.5	-2381.3	1475.9	272.6	-1203.3	2961.8	508.1	-2453.7	8154.5	2116.2	-6038.3	26%
Development funding - GoM (Part2)	240.0	155.7	-84.3	200.7	180.0	-20.7	142.0	380.4	238.4	582.7	716.1	133.4	123%
NAC		0.0	0.0		223.5	223.5	0.0	206.7	206.7	0.0	430.2	430.2	
UNICEF support		0.0	0.0		239.6	239.6	0.0	172.7	172.7	0.0	412.3	412.3	
Total Discrete funding	**3956.8**	**1491.2**	-2465.6	**1676.6**	**915.7**	-760.9	**3103.8**	**1267.9**	-1835.9	8737.2	3674.8	-5062.4	42%
Grand Total Funding to Activities	**10789.3**	**7682.8**	-3106.5	**14181.8**	**12426.3**	-1755.5	**16456.6**	**16550.2**	93.7	41427.6	36659.4	-4768.3	88%
Expenditure													
1.0 Human Resources													
Personal emoluments	3559.2	2334.0	-1225.2	2397.3	3772.1	1374.8	3786.4	3827.7	41.3	9742.9	9933.8	190.9	1.0
Training	1152.2	431.5	-720.7	1304.2	826.1	-478.2	846.9	947.1	100.2	3303.3	2204.7	-1098.6	0.7
Total Human Resource	**4711.4**	**2765.5**	**-1945.9**	**3701.5**	**4598.1**	**896.6**	**4633.3**	**4774.8**	**141.6**	**13046.2**	**12138.5**	**-907.7**	**0.9**
2.0 Pharmaceuticals, Medical and Laboratory Supplies													
Drugs	2671.4	1866.5	-804.9	2788.9	2513.7	-275.2	2806.4	2280.2	-526.2	8266.8	6660.4	-1606.3	0.8
Vaccine programmes	0.0	0.0	0.0		0.0	0.0	371.3	0.0	-371.3	371.3	0.0	-371.3	0.0
Referral cases	0.0	124.2	124.2	134.5	76.4	-58.1	21.1	109.4	88.3	155.7	310.0	154.4	2.0
Total Pharm's, Medical and Lab Supplies	**2671.4**	**1990.7**	**-680.7**	**2923.5**	**2590.1**	**-333.4**	**3198.8**	**2389.6**	**-809.2**	**8793.7**	**6970.4**	**-1823.2**	**0.8**
3.0 Essential Medical Equipment													
Maintainance of equipment	119.7	65.8	-53.9	326.1	83.1	-243.0	274.2	81.5	-192.7	720.1	230.4	-489.6	0.3
Purchase of medical equipment	29.0	454.9	425.9	1204.7	880.0	-324.7	956.8	355.2	-601.5	2190.4	1690.1	-500.3	0.8
Total Essential Medical Equipment	**148.7**	**520.7**	**372.0**	**1530.8**	**963.1**	**-567.7**	**1231.0**	**436.7**	**-794.3**	**2910.5**	**1920.5**	**-990.0**	**0.7**
4.0 Infrastructure													
Construction of health facilities	756.0	256.1	-499.9	192.7	138.7	-54.0	1983.5	1002.2	-981.3	2932.2	1397.0	-1535.2	0.5
Installation/repair/rehabilitate utilities	110.7	92.5	-18.2	319.0	347.3	28.3	570.8	409.2	-161.6	1000.5	849.0	-151.5	0.8
Maintenance of boreholes	0.0	0.0	0.0	0.5	0.0	-0.5	6.2	7.5	1.3	6.8	7.5	0.8	1.1
Rehabilitation of health facilities - all levels	0.0	0.0	0.0	2.5	3.1	0.6	28.6	0.0	-28.6	31.1	3.1	-28.0	0.1
Total Infrastructure	**866.7**	**348.6**	**-518.1**	**514.7**	**489.1**	**-25.6**	**2589.1**	**1418.9**	**-1170.2**	**3970.5**	**2256.6**	**-1713.9**	**0.6**
5.0 Routine Operations (service level)													
Total Routine Operations	**2072.3**	**1466.8**	**-605.5**	**2321.9**	**2331.7**	**9.8**	**3563.5**	**3910.8**	**347.3**	**7957.7**	**7709.3**	**-248.4**	**1.0**
6.0 Central Institutions, Policy & Systems Developm't													
Total	**318.8**	**218.0**	**-100.8**	**3189.3**	**1381.2**	**-1808.1**	**1240.9**	**1291.2**	**50.3**	**4749.0**	**2890.4**	**-1858.6**	**0.6**
Other UNICEF Support			0.0		245.9	245.9		212.5	212.5	0.0	458.4	458.4	
Direct Drugs Procurement			0.0		626.5	626.5		2080.0	2080.0	0.0	2706.5	2706.5	
Grand Total	**10789.3**	**7310.3**	**-3479.0**	**14181.8**	**13225.7**	**-956.1**	**16456.6**	**16514.6**	**58.1**	**41427.6**	**37050.6**	**-4377.0**	**0.9**

Notes:
Info Supplied by MOH finance section
Figure in red indicate underspend relative to planned spend

This table indicates a consistent pattern of underspending against resources available, although when examined against resources budgeted at the start of the year, expenditure is broadly on target.

Table7 : Malawi Health SWAp POW: Summary of Expenditure Trends (2004-2007)

Expenditures by SWAp Main Pillars		2004/05		2005/06		2006/07		%Breakdown of Expenditures		
		$ millions	MK billions	$ millions	MK billions	$ millions	MK billions	04/05	05/06	06/07
	Average actual exchange rate		115		135		140			
1.0 Human Resources										
	Personal emoluments	21.0	2.41	27.6	3.73	33.5	4.69	23%	24%	29%
	Training	10.0	1.14	10.4	1.40	10.4	1.46	11%	9%	9%
	Total Human Resource	**30.9**	**3.55**	**38.0**	**5.13**	**43.9**	**6.15**	34%	33%	37%
2.0 Pharmaceuticals, Medical and Laboratory Supplies										
	Drugs	15.4	1.77	29.7	4.01	19.9	2.79	17%	26%	17%
	Vaccine programmes	-	-		-		-			
	Referral cases	-	-		-		-			
	Total Pharm's, Medical and Lab Supplies	**15.4**	**1.77**	**29.7**	**4.01**	**19.9**	**2.79**	17%	26%	17%
3.0 Essential Medical Equipment										
	Maintainance of equipment	1.0	0.12	1.2	0.16	1.3	0.18	1%	1%	1%
	Purchase of medical equipment	5.2	0.60	6.3	0.85	6.8	0.95	6%	5%	6%
	Total Essential Medical Equipment	**6.2**	**0.71**	**7.5**	**1.01**	**8.1**	**1.13**	7%	6%	7%
4.0 Infrastructure										
	Construction of health facilities	6.0	0.69	5.7	0.77	7.8	1.09	7%	5%	7%
	Installation/repair/rehabilitate utilities	1.0	0.12	1.0	0.14	1.2	0.17	1%	1%	1%
	Maintenance of boreholes	-	-		-		-			
	Rehabilitation of health facilities - all levels	-	-		-		-			
	Total Infrastructure	**7.0**	**0.81**	**6.7**	**0.90**	**9.0**	**1.26**	8%	6%	8%
5.0 Routine Operations (service level)										
	Total Routine Operations	**24.0**	**2.76**	**27.3**	**3.69**	**30.1**	**4.21**	27%	24%	26%
6.0 Central Institutions, Policy & Systems Developm't										
	Total	**6.7**	**0.77**	**6.5**	**0.88**	**6.1**	**0.85**	7%	6%	5%
Grand Total		**90.2**	**10.37**	**115.7**	**15.62**	**117.1**	**16.39**	100%	100%	100%
	Rate of Increase Over Previous Year			**28%**	**51%**	**1%**	**5%**			
	Cumulative Rate of Increase (Base 2004/05)			**28%**	**51%**	**30%**	**58%**			

Cumulative Expenditure ($ millions)	90.18		205.88		322.98	

This table presents the same data but broken down by SWAp components. This clearly shows the early effects of salary price inflation with personal emoluments rising from 23% to 29% of total PoW expenditures in the first 3 years of the programme.

4.3. Expenditure Projections for the SWAp PoW

The rapid increases in expenditures over the first 3 years of the PoW have already been highlighted in this report. What is less clear are the factors underlying these increases and the likely trend over the remaining 3 years of the PoW and beyond. Part of the difficulty in projecting expenditures is related to the problem discussed elsewhere in this report, namely, the difficulty of separating out the effects on programme expenditures of price effects, quantity changes and changes in the timing of implementation. Since the original PoW design and costing exercise there have been numerous incremental changes to the scope of the PoW. Some activities have been enlarged in scale or scope, whilst in other cases new elements have been tagged on to the PoW. The current status of many of these changes is unclear, and so too therefore is the net impact upon programme costs. It is particularly unclear what health expenditure is in fact PoW related, leading to concerns that there may be an even greater underspend against the original PoW cost projections than estimated by the MTR team. There is an urgent need to clearly articulate the content of the PoW so that a revised costing can be produced and assessed against expenditures to date.

Current reporting formats are another obstacle, as detailed in Section 2 of this report. Although a budget is prepared for each individual activity in the PoW, current financial practices mean that it is It is simply not possible to determine how much is actually spent on each activity. An obvious consequence of this is that one cannot relate physical progress on the PoW to financial outturns. For example, one cannot determine whether a spend, say, of 50% of the PoW budget equates (even approximately) to a 50% achievement level on physical progress. What can be said with certainty is that the doubling of spending in first phase of the SWAp does not correspond to a doubling of physical progress because of the effects of significant price increases, particularly staffing costs.

Whilst a cursory inspection of expenditures would suggest that actual PoW expenditures are broadly in line with the original PoW budget, the original budget did not anticipate such large increases in the prices of inputs such as staff and medical supplies. If one adjusts for these price effects, one would see a considerable under spend on human resources and medical supplies, and an effective shortfall on planned PoW expenditures overall. Looked at in another way, the MoH would need to be significantly overspending on the original budget to be anywhere near to being on target with regards to physical progress.

The net effect of these various factors is that one cannot simply extrapolate recent expenditure trends to estimate expenditures for the remainder of the PoW period. The original content and prices used to cost the PoW needs to be revised in the light of subsequent changes and used as a more realistic estimate of costs and expenditures in the second half of the PoW.

4.4. POW Costing

Initially costed at around US$ 1.5 billion' the original SWAP PoW was immediately down-scaled to a more affordable US$ 735 million over 6 years (or an average annual expenditure of more than $US10 per person).

The POW budget was based upon the results of a costing exercise, at the heart of which was a detailed costing of the proposed EHP. The costing model used a hybrid methodology to estimate the unit costs of a prioritised list of health interventions selected on the basis of their technical effectiveness and feasibility, known cost-effectiveness (from international data), and anticipated affordability. The classification of interventions was based on the Mother-Baby Package costing spreadsheet developed by the Department of Reproductive Health and Research at WHO. Public health, preventive and environmental interventions were presented differently as they did not fit easily into the WHO format .

EHP interventions (and associated costs) are based upon ideal (ie standardised) treatment protocols and target standards. It was initially planned to identify the costs of interventions based on both current practice and ideal standards, so as to be able to identify the "upgrading" resource gap. However, a lack of knowledge of practice in the field made this impossible. The per capita costs of the ideal EHP were initially estimated at over US$ 17.5, later revised upwards to US$ 22 once additional information was available and additional overheads factored in.

4.5. Format Used for EHP Costing

The costing of personal interventions in the EHP employs a standardised format derived from the WHO Mother-Baby Package costing document. The various headings are explained below.

Scope of intervention: This section gives an overview of the intervention including brief technical details of the relevant procedures.

Population requiring intervention: This gives estimates of the numbers requiring the treatment as used in the costing spreadsheets. These are based on available data on population groups, incidence and assumptions relating to current and target coverage levels.

Clinical management: This provides a brief summary of the main courses of treatment that should be followed. In tabular form it outlines main actions for assessment and treatment, as well as specifying any laboratory tests which are required/recommended at that level as a means of strengthening diagnosis. The laboratory component has been drawn in from work undertaken by the Malawi Essential Medical Laboratory Services (EMLS) project. The table also presents estimated referrals between the three levels of the EHP .

Drugs and supplies: This section itemises single-use drugs and supplies used in case management. Under 5 doses are based on a 3 year old with average weight of 15kg unless otherwise specified. Adult doses are based on 60kg weight unless otherwise specified. Where currently alternative treatments are given due to stock-outs, the preferred treatment only is specified (as per the Malawi Standard Treatment Guidelines 1998), on the assumption that these drugs will be in constant supply at all levels of the health system.

Clinical staff: The minimum level of staff deemed necessary to carry out the treatment at each level. This does not specify numbers that will depend on workload, no calculation of which has been undertaken. Assumptions regarding numbers are made in the spreadsheet.

Hospitalisation: The duration of any hospitalisation for the condition under consideration.

Referral: This section states where referral is indicated, and whether this involves provision of transport by the health system.

Other support services: This section provides minimum information on activities such as in-service training, HMIS, logistics etc, and which may be removed. This is an area where further work is still required, and the details will be covered elsewhere.

4.6. General Observations on Costing Methodology

The team undertaking the costing of the EHP and PoW are to be commended on their detailed description of their methodology and their explicitly stated assumptions. They were also very forthright in acknowledging gaps in information and the limitations of available

data. However, their costing was based upon a curious hybrid of methods whereby some inputs were costed on a direct (i.e. marginal cost) basis, and other items costed on the basis of average costs. For example, certain assumptions were made about the adequacy of the health workforce, and the total costs of the workforce factored in as an overhead calculated on average costs.

This method would have sufficed had the PoW remained largely as it was originally designed. Unfortunately, there have been many changes to the PoW so that the average cost assumptions no longer hold. Whilst the MoH should be thinking about a more robust costing methodology for the next phase of SWAp, a more pragmatic response is required in order to get a better current estimate of the PoW costs and inflationary pressures. This will entail a recalculation of costs by entering new parameters into the original costing model to reflect price and other changes in the last 3 years. This will require an authoritative voice to confirm what is currently in the revised PoW as well as un undertaking not to substantially change (i.e. to freeze) the PoW for the remaining 3 years of the SWAp.

Particular attention should be given to costing the health workforce. This will require estimates of the staff in post by grade and level in 2004 and 2007, and likely to be in post by 2010. In order to separate the effects of price changes from changes in the size and composition of the workforce, the costing should be done on the basis of remuneration levels in 2004, 2007 and 2010 (estimated).

4.7. Conclusions and recommendations

A positive feature of the SWAp has been the rapid increase in funding. Whilst expenditures have more than doubled in the first three years of the SWAp, it is difficult to know the degree to which this increase is due to inflationary pressures and whether the trend is sustainable. Although the MoH has not yet overspent on the SWAp, events during the first 3 years of operations have introduced strong inflationary pressures. In fact, it is likely that much of the doubling of nominal expenditures in the first 3 years of the PoW is due to more to price changes than to accelerated implementation. It is important to recall that the programme started with a significant resource gap, and that the PoW budget was less than half of the estimated cost for full EHP coverage. Without a commensurate increase in funding, these inflationary forces will mean that further compromises will need to be made in terms of programme implementation.

Although the model used to cost the EHP and PoW has certain limitations when it comes to projecting costs it is possible to revise and update the orginal PoW cost calculations by entering new parameters in the original model. The results of this exercise will provide the MoH with new baseline for strategic and financial planning for the second half of the SWAp. Another concern, echoed elsewhere in the MTR, is the limited use of data for health planning, monitoring and evaluation purposes. Although data is not always easy to extract from the system, with some persistence it is possible to get access to disaggregated data. This is certainly true of expenditure data. However, there is little evidence that such data is being analysed to reveal trends or to highlight significant patterns across districts.
It is a matter of great urgency that the MOH undertakes a detailed analysis of expenditure trends to assess the sustainability. Specifically;

- The MoH should update its cost projections for the SWAp by updating the parameters used in the original model to reflect changes in price, quantities, scope and timing of implementation.
- The costing update should also take into account the work completed to-date and thereby provide a separate estimate of the costs of outstanding activities.

- A special costing exercise should be undertaken in respect of the health workforce so as to be able to disentangle the effects of changing numbers and skill-mix from pure price effects.
- The MoH should ensure that it allow proper analysis of important trends and patterns, by maintaining comprehensive disaggregated data sets on expenditures and activities. Should the MoH not have the capacity to undertake such analyses in house it should consider the possibility of contracting out such work.

5. Revenue Analysis and Projections

5.1. Introduction

Robust cost projections are a necessary though not sufficient prerequisite for sound strategic financial planning. Also required is a comprehensive review of potential funding sources and an estimation of the likely yield from each source. Currently, health sector revenues are dominated by two sources of funds, development partner contributions and government financing.

Attempts to broaden the revenue base are beset by several problems. Direct out-of pocket household expenditures represent a very small share of total health sector revenues and are limited to those in regular formal employment. Whilst some form of social health insurance may be feasible in the longer term, for now that option is also constrained by the limited numbers in regular paid employment. Health policy does not currently favour the routine use of user fees for health services so that user fees are unlikely to figure prominently in the options for increased revenue generation. In fact, the MOH is currently contracting CHAM facilities to provide services on behalf of the MOH and compensating them for waiving their user charges in a bid to reduce financial barriers to access.

Realistically, the MOH would need to look to its two main sources of funding for increased resources: DP contributions and GoM allocations to the MoH. A first step in projecting these sources is to review funding trends over the first 3 years of the SWAp.

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5.2. Trends in SWAp Revenues (2004-2007)

There is no doubt that sectoral funding has increased during the first half of the SWAp POW and that districts are now enjoying a higher level of funding. The Norwegian/Swedish 25% topping up of ORT budgets across budgets contributed to the increase in funds available, but also served as an incentive to planning and budgeting, due to the relative flexibility in use of funds. Although the MTR team does not have a complete overview of the increase of funds in individual district (ORT and DB), these are roughly estimated to have at least doubled.

The MoH has provided an overview of the financing trends of the first period of the POW. This is based on the budgets, actual funding and actual expenditure for the time period. As the 2006/07 figures were incomplete, estimates have been made where cost centres spending data is incomplete.

The overall funding of the programme increased by 115% in the period, starting off with a total of MK 8.14 billion in 2004/05, against a total of MK 17.15 billion in 2006/07. The major increase comes from the pooling partners, which contributed only MK 1.1 billion the first year and a total of MK 8.98 billion in 2006/07. According to the figures, the discrete partners only contributed MK 0.51 billion, although many of these also contribute directly to activities, often

off budget. The total contributions to the POW (on and off budget) are thus considerably higher than captured in these figures, but this has not been estimated by the MTR Team, or by others.

The donor share of actual net funding (to cost centres, less transfers from SWAp a/c plus sundry) has increased from 30% in 2004/05, to 46% in 2005/06 and 56% in 2006/07 (and Govt. funding 44%), with a total cumulative funding of 47% (Govt. 53%).

The estimated figures in the POW have been adjusted for average exchange rates and presented in Table 5 below. This shows marginally lower estimates than the actual funding for 2005/06 and 2006/07, whereas higher for 2004/05. However, these are generally considered to be quite good estimates. The annual fluctuation in the value of the kwacha makes this estimation difficult, although the rate of inflation has stabilised at below 10% and is projected to fall to 5% by the end of the SWAp.

Table 8 MOH Budget Overview 2007-2008

	TREASURY CEILING 12 months MK billion	DRAFT MINISTRY'S PROPOSAL 12 months MK billion	DIFFERENCE MK billion
Personal Emoluments	4.028	4.469	(0.441)
ORT	5.250	8.445	(3.196)
Drugs	3.108	2.800	0.308
Central Medical Stores	0.700	0.700	-
ORT with Drugs Subtotal	9.058	11.946	(2.888)
Total Recurrent (A)	**13.086**	**16.415**	**(3.328)**
Development Budget			
Part 1 Development partners	3.467	3.467	0.500
Part 2 Government	0.178	0.310	(0.133)
Total Development (B)	**3.645**	**3.777**	**(0.132)**
Total budget for the vote (A+B)	**16.731**	**20.192**	**(5.530)**

Table 9 Breakdown of Development Partner Pledges 2007-2008

Donor	Amount (US$ million)	Amount (MK billion)	Govt. Contribution (MK billion)
Norway	23.264	3.257	
DfID	31.550	4.417	
World Bank (Normal SWAp)	2.500	0.350	
GAVI (Vaccines)	5.000	0.700	
GAVI (HSS)	-	-	
Global Fund (HSS)	11.300	1.582	
World Bank (Malaria Booster)	2.500	0.350	
UNFPA	0.100	0.014	
Global Fund (Malaria)	6.500	0.910	
KFW	2.500	0.350	
TOTAL (C)	**85.213**	**11.930**	**11.185**
District allocations		6.700	
Development Part II		0.310	

Table 10 Summary financing of increased ceilings (MK billion)

	2007/08
Amount available from donor pledges	11.929
Amount available from government	11.185
Available funding subtotal (E)	23.115
Total Proposed Ceilings for Vote 310 (F)	16.415
District Assemblies	6.700
Expenses subtotal	23.114
Surplus/ (Deficit) (E-F)	-

5.3. Revenue Projections

Effective strategic planning is dependent upon the ability to link strategic and operational intentions and costs with accurate projections of likely resource availability from all sources. Government and other stakeholders have repeatedly been trying to capture the overall resource envelop for the overall POW, but this has proven very difficult. In principle the resource envelop consists of Government contributions, donor contributions, contributions from the private sector (employers, etc.), from NGOs and from users (through pre-payment schemes and out-of-pocket).

The principle sources of funding for the POW are: Government, pooling donors, discrete donors and direct activity funding (and/or implementation). The latter may or may not be captured in the budget (on/of budget). The recent National Health Accounts (NHA 2002 – 2004) confirms the finding of this mission that there is no single database for all donor

expenditure on health in Malawi. However, the Department for Debt and Aid (MoF) operates a database where as much information as possible on current and future commitments for all sectors is obtained, but this only includes the major donors and mainly the on-budget support. There are also other data sources, such as the donor mapping study conducted by a DfID consultant in 2005; a MoH study on donor support in the health sector in March 2005; as well as an NHA Team survey of NGOs in late 2005. Similarly, there is no database on NGO and implementing agency expenditure on health.

All development partners (pooling and discrete) sign individual Financing Agreements with the Government/MOF that specify current and future commitments, rates of disbursements, as well as conditions for disbursement. Not only do these agreements vary in volume and time period, but also in currency, start/end of fiscal year, disbursement rate, funding modality and conditions.

Apart from this, the sector planning appears only to capture the annual commitments, and adjustments in the overall longer term funding of the POW is not updated, even with the information available from these agreements. The MTR team made an attempt to update the record of planned DP commitments up to 2010. A proforma was sent out to all DP through the SWAp Secretariat but only 2 responses were ever received.

5.4. Government of Malawi Revenues

Malawi faces major challenges in achieving progress in economic growth, poverty reduction and social development. Recent macroeconomic performance has been poor and Malawi remains one of the poorest countries in the world. Weaknesses in the health care system, particularly shortages of adequately trained staff, have been compounded by high rates of HIV/AIDs infection, and life expectancy at birth is now below 40 Weaknesses in the health care system, particularly shortages of adequately trained staff, years.

The medium term prospects for the Malawian economy are crucial for the development of the country's health sector, not least because they influence government financial allocations for health. Fortunately, the medium term forecast for the economy is positive, and much improved on the recent past. Macroeconomic performance in the period immediately prior to the introduction of the Malawi Health SWAp was poor with real Gross Domestic Product (GDP) growth averaging only 1.5% per annum. Rising food prices contributed to an average inflation rate of 27.2% in 2001. Although inflation had fallen to 11.5% by 2004 when the SWAp was launched, food shortages and rising petroleum product prices remain strong drivers of domestic inflation. In spite of these strong inflationary pressures, inflation is expected to fall to a level of 5% by 2010 when the SWAp ends.

The GoM's medium term economic forecasts and its economic policy framework (reflecting both the MTEF and PRSP) are encapsulated in the Malawi Growth and Development Strategy 2005 (MGDS). GDP growth rates projected at around 6% for the last three years of the SWAp. A healthy increase in per capita incomes is forecast with a nearly threefold increase from US$160 per person to an average of US$450 by 2011. Higher growth rates are constrained by low disposable incomes which in turn limit savings and investment rates. Expressed as a percentage of GDP national savings have remained below 3.2 per cent while gross investment has been below 11.2 per cent. Poor fiscal discipline has contributed to an unsustainable increase in domestic debt. This in turn has constrained public expenditures as more of the budget was required for debt servicing.

Table 11: Medium-Term Objectives as Indicated in the MGDS 2005

	2003	2004	2005	2006	2007	2008	2009	2010	2011
Inflation Rate	9.8	13.7	16.9	13.9	7.0	7.0	5.0	5.0	5.0
GDP Growth	3.9	4.6	2.1	8.2	5.6	5.9	6.0	6.0	6.0
Domestic Debti	25.0	24.1	19.8	16.8	14.2	12.3	10	10	10
Fiscal Balance76	-0.9	-4.1	-1.3	-0.9	-0.7	-1.1	-1.0	-1.0	-1.0
Gross Reserves77	1.5	1.3	1.6	2.2	2.4	2.6	3.0	3.0	3.0

Although the MGDS affirms the importance of health in development, there is no specific commitment in that document to increase funding for the sector, or of any specific pro-poor activities to be undertaken within the sector.

The GoM contribution to the MOH budget is determined by several factors: the overall health of the economy; its revenue raising potential; and the priority it gives to health in the public finances. Prospects for medium term economic growth are encouraging, although the GoM does not plan to increase public spending as a share of GDP. This means that for the health sector to increase its share of the budget at a rate faster than general GDP growth, it will need to present a strong and well argued case to the MoF.

Table 12 Budget Framework and Resource Envelope as Specified by the MGDS

	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
Total Revenue & Grants	38.8	43.5	39.7	38.5	37.3	38.5	38.5
Revenue	24.8	24.6	24.4	25.6	24.0	25.0	25.0
(Tax Revenue)	21.8	21.5	21.4	21.3	21.2	21.3	21.3
Grants	14.0	18.9	15.3	14.3	13.3	13.5	13.5
Total Expenditure	42.9	44.7	40.6	39.2	38.4	39.5	39.5
Current Expenditure	32.2	31.9	28.6	27.3	26.4	27.5	27.5
Capital Expenditure	10.4	12.8	12.0	11.9	12.0	12.0	12.0
Overall Balance	-4.1	-1.3	-0.9	-0.7	-1.1	-1.0	-1.0
Nominal GDP	100.0	100.0	100.0	100.0	100.0	100.0	100.0

As a signatory to the Abuja Declaration the GoM has undertaken to increase its allocation to the health sector to 15% of public expenditure though in recent years it has not exceeded 10% of this figure. In fact, throughout most of the 1990s the health sector received somewhere between 6% and 7% of total GoM public expenditure. An exception to this was in financial year 1996 to 1997, when just over 8% of public expenditure was allocated to health.

5.5. Ministry of Health Budget for 2007/08

The MOH budget for the current fiscal year beginning on July 1st 2007 was not approved when the MTR started. This required the Minister of Finance to exercise his discretionary powers to disburse funds for essential services in the interim period. Whilst there are funds available in the SWAp account due to earlier year under-spending, donors may not be able

to disburse without an approved GOM budget, which again may have serious implications for the rate of overall disbursements.

The Table 5 above outlines the Ministry of Health budget proposal which exceeds the ceilings set by Treasury by MK 5.5 billion. The overall budget proposal is MK 20.192 billion, with approximately MK 4.5 billion for PE, MK 12 billion for ORT (including drugs) and MK 3.8 billion for development budget. Development partners are expected to fund more than 90% of the latter.

The MOH budget for this year was finally approved around 2 months after the start of the financial year. The figure represented a 17.7% increase over the previous year's allocation, and 36% more than actual spending in 2006-2007. Questions remain about the absorptive capacity to manage this increase, particularly in the areas of drugs and medical supplies, but also in general procurement as well as in construction of 250 new houses, new laboratories. What remains an unknown is the effect of costs of the inflationary pressures mentioned elsewhere.

5.6. Development Partners Sources

Overall donor pledges are forecast to be MK 11.9 billion (US$ 85 million) plus district allocations of MK 6.7 billion, but it is not entirely clear when this estimate was last updated and what it includes. The GOM budget of MK 11.185 billion is equivalent to 48% of total expenditures.

5.7. Funding Modalities for Development Partners

When the SWAP was introduced 3 years ago, not all development partners were willing to sign up to full "pooled funding". In order to accommodate the varying needs and preferences of the development partners, a range of funding modalities were provided for in the MoU.

General Budget Support*:* General budget support (GBS) is defined as support to the overall government budget through the MoF. In theory such funds should be indistinguishable from other government funding sources (i.e. non-earmarked and available to Government as if they were its own funds). However this may only the case in theory, as other conditions may indirectly lead to allocations for specific sectors, such as health. This may be conditions such as a certain percentage of total budget allocated for health (e.g. holding Malawi responsible for its signing to the Abuja declaration of 15% of government budget for health). Several developing partners are providing GBS to Malawi, including health pooling and discrete donors.

Direct Budget Support*:* The MoU describes an arrangement as Direct Budget Support, which are contributions from Collaborating Partners to the MOH channelled through MoF. The characteristics of this modality are as follows:

- The MoH will prepare work plans and budgets that will be agreed upon with Collaborating Partners for support.
- Collaborating Partners funding the work plans will release funds to the MoF on a regular basis based upon agreed budget and cycle.
- Collaborating Partners will notify the MoH of such transfer of funds and the MoF will release the funds to the MoH in a timely manner upon the Ministry's request/advice.
- Performance and expenditure reporting will be done in the agreed reporting formats.
- Accounting will be done in line with the existing government procedures.

Apparently this modality was introduced to meet the special requirements of the EU, although the EU is not currently using this modality.

Sector Investment Support: This support is defined in the MoU as support contributed by Collaborating Partners to the sector made directly to the MoH, either through pool funding arrangements or for specific interventions. Four modes of Sector Investment Support are possible:

Mode I: Pool or Basket Funding: Contributions from Collaborating Partners are channelled directly to MoH and deposited in a common bank account. These funds are controlled by the MoH and are available for the entire sector. In practice the pooled funds are transferred through MoF, but held in s separate SWAp account, which is comparable to the mode of direct budget support. Ideally, this is the MoH's preferred funding modality.

Mode II: Direct MoH Funding (Separate Bank Account): Under the MoU mode II contributions from Collaborating Partners are also channelled directly to the MoH, controlled by the MoH and available for the entire sector. In practice this should also be channelled through MoF, and is also comparable to direct budget support. Unlike Mode I, funds are deposited in separate individual bank account, not in a common account, but in principle not earmarked.

Mode III: Direct MoH funding, earmarked (discrete): This modality is described in the MoU as contributions from Collaborating Partners that are channelled directly to the MoH. Whilst these funds are controlled by the MoH, as with Mode I, funds are transferred through MoF and deposited in separate individual bank accounts. As in Mode II, they are available only for a specific activities.

Mode IV: Project funding within POW: Funds are channelled directly to either an activity implementation team or a relevant entity and are not controlled by the MoH. They are available only for a specific activity under the Sub-Programme of the POW, and are deposited in separate individual bank accounts as appropriate. (Source: MOU Annex F).

5.8. Strengths and Weaknesses of Funding Modalities

Total development support to Malawi in 205/06 was US$ 497 million (Malawi Government Annual Debt and Aid Report July 2005 – June 2006). General budget support was 29% of total, whereas health as the largest recipient sector received 13% of this, whereas HIV/AIDS as a functional sector received slightly below 6%, a figure which is likely to have increased since. The donors providing budget support were DfID, World Bank, EU and Norway. From the following year the World Bank ended its budget support, and there are just three donors left providing this. All the above except EU also provided pooled funds for health.

The so-called discrete partners constitute the largest group of development partners, although in practice the definition varies according to the information/data available, referring to modes III and IV, and sometimes even mode II. For all practical purposes discrete donors may be defined as those funding through all other mechanisms than general budget support and pooled funding, and in the SWAp context, supporting the POW.
The relative strengths and weaknesses of the different funding modalities are summarised in the table below, using a number of different variables, such as flexibility in utilisation, predictability, ease of disbursement, administrative overhead/transaction costs, effectiveness, alignment and harmonisation.

This may be summarised as follows:

- **General budget support** may be the preferred option for MoF, providing the highest flexibility, predictability, as well as the highest degree of alignment (with MoF), often with relative low transaction costs.
- **Pooled funding** is the preferred option for MoH, as it is likely not only to increase the overall budget available, but also provides high degree of predictability of funds coming in, (relative) flexibility in use, disbursement according to agreed principles, relatively low long term transaction costs due to common approach, a high degree of harmonisation between donors, and even more important, high degree of alignment with Government.
- **Direct funding**, but through a separate account may share many of the same benefits as pooled funding, although with somewhat higher transaction costs (e.g. separate account requiring separate routines, mechanisms, etc.), but may have a high degree of harmonisation and alignment.
- **Earmarked direct funding**, is often favoured by development partners, it allows them to determine specific expenditure priorities. This is often an important mode in politically unstable situations, as well as to protect certain groups or health problems which are particularly vulnerable to changes. Transaction costs for this modality is often very high, and harmonisation and alignment relatively low.
- **Project funding** may be considered the only feasible option by donors in many cases, either due to poor implementing capacity of the MoH, complex/unstable political situations or fragile states, areas or groups with poor coverage or special conditions from the donor's side. By definition, a project has a beginning and an end and sustainability becomes a key issue. From the MoH side this may be seen as separate and even outside their scope of work, but may also be seen as an addition or supplement to the work carried out. Whilst transaction costs to the MoH may be low, the ability to integrate (align as well as harmonise) activities is the weakest aspect of this modality. The long term effectiveness in obtaining improvement in a broader set of health outputs and outcomes may often be relatively low, but depending on the profile and stability of the project.

Table 13 Strengths and Weaknesses of POW Funding Modalities

		Sector investment support			
	Mode 0: General Budget Support, MoF	Mode I: Pooled funding	Mode II: Direct funding, separate account	Mode III: Direct funding separate account, earmarked	Mode IV: Direct funding of activity team, project funding
Current relevance (examples)	This mode of funding is used by different donors, also in addition to other modes	Increasing relevance; DfID, Norway/Sida, World Bank, GFATM, UNFPA, KfW		JICA, USAID, GTZ	MSH
Relative Strengths and Weaknesses of Modalities					
Flexibility in utilisation of funds	Highest flexibility of MoF	Highest flexibility for MoH, but according to POW	High flexibility as funds are non-earmarked	Low flexibility, but subject to fungibility	No access by MoH, no flexibility, some fungibility

Predictability	High predictability, but may be subject to strict conditions at macro level	High short term predictability, subject to conditions in MoU; long term predictability dependent on contracts with development partners	High short term predictability, subject to conditions in individual contract; long term predictability dependent on agreement with development partners	As mode II	Low degree of control by MoH and relatively low predictability in short term and lower in long term.
Ease and speed of access or disbursement	According to regular govt. procedures and overall budget allocations, often slow	Currently quarterly disbursement according to MoU; monthly disbursement to districts.	Depending on individual agreement, but may potentially be easy and speedy	As mode II	Potentially easy access by project or activity, but not by MoH
Administrative overheads and transaction costs	Low	High short term overall adm. overhead and transaction costs; long term relatively lower as benefiting from stronger systems as well as covering more dev. partners	Lower short term adm. overhead and transaction costs than mode I; long term higher due to separate account, reporting and less harmonisation	Higher short term adm. overhead and transactions costs than mode II, but lower than mode I; higher long term than the other modes due to separate reporting needs.	Low short and long term overhead costs for MoH, depending on activity team, but higher for the team itself.
Effectiveness in relation health outputs and health outcomes	Dependent on govt. priorities of health sector	Often found to increase health outcomes and outputs only marginally in short and even medium term; expected to increase these in a broad range in long term; possibly more equitable	As mode I	Higher short term effectiveness in affecting health outputs and outcomes, but limited to a few; similarly in longer term	High short term effectiveness inn affecting health outputs and outcomes, but limited to a few, as well as smaller geographical area; similarly in longer term
Capacity in Supporting SWAp					
Alignment with govt. policies, plans & procedures	High degree of alignment with general government macro policy, plans and procedures of MoF	Highest degree of alignment; aim of SWAp	High degree of alignment, but lower than mode I due to separate account	May or may not be aligned with policies and plans; procedures normally not aligned	As mode II, but normally the lowest degree of alignment
Harmonisation between partners	Dependent on macro level partners	Highest degree of harmonisation of development partners	High degree of harmonisation with development partners, but some procedures differ	Harmonisation normally weaker, procedures differ	Lowest degree of harmonisation with other partners
Common indicators & frameworks	Dependent on individual or group of donors' agreement with government.	Agreed common indicators and M&E frameworks as part of the MOU for the SWAp as such	As mode I	Earmarking often implying the need for additional indicators and frameworks for M&E	Normally separate indicators and frameworks for M&E

5.9. Conclusions and recommendations

Despite limited absorptive capacity the first 3 years of the SWAp have seen a large increase in expenditure. Although the MOH has underspent on its most recent budget, the inflationary pressures already in the system are likely to become more apparent in the second half the

current SWAp. The MoH needs urgently to reassess the resource envelop available for the remaining period. Specifically actions to be taken are as follows:

- The MoH/MoF should update (on at least a quarterly basis) the funding commitments made by the discrete and pooled donors based on all signed financing agreements. The most appropriate mechanism is for the MoH to support the MoF to maintain the database it currently maintains.
- The MoH should maintain a registry of all financing agreements for the sector, irrespective of whether they form part of the SWAp.
- All partners in the SWAp need to reacquaint themselves with the MoU and to adhere to its directions and guidelines in respect of the SWAp.

6. Improving Resource Allocation, Equity and Coverage

6.1. Introduction and Background

Inequalities in health in Malawi are widespread and pervasive. They can be traced to many factors, including high levels of poverty, widespread illiteracy, a high disease burden compounded by high levels of HIV/AIDs, and a weak health care system characterised by shortages of key health professionals, poor infrastructure, limited accessibility and coverage, and, the long-term effects of chronic sectoral underfunding. There is no shortage of local studies of poverty or health inequalities. In fact, a special edition of the Malawi Medical Journal (MMJ) dedicated to equity was produced in June 2006.

Current financial systems do not readily yield data on health inequalities although the recently produced National Health Accounts for Malawi have estimated per capita recurrent expenditure by geographic region. It found that the North was best funded (MK 559), followed by the South (MK 406) with the Central region lowest (MK 340). Although there is a need to calculate this by individual district, the general picture is that both percentages classified as poor and under 5-mortality rates are higher in the South, whereas percentage stunted growth is highest in the Centre.

Problems also exist in tracking expenditures by level of care. As mentioned earlier, since the District constitutes a single cost centre it is extremely difficult to work out how much of the budget is consumed by the District Hospital and how much by Health Centres and other rural health care facilities. Nor is there any formula to guides DHO on sub-district resource allocation practices. The recent NHA study found that health centres/dispensaries/maternity units were the major providers of health care, but that spending at that level accounted for only 29% of total health expenditures (THE) compared with spending by Public Health of 31% and hospitals 25%. For MoH expenditures alone the imbalance was even more marked with about 64% of all expenditure occurring in hospitals, including central, district and rural. Clearly such a pattern is at odds with the sectors targets for improved coverage and accessibility of basic services.

Further equity anomalies are evident in the MoH's funding of overseas treatment. According to the most recent National Health Accounts approximately MK 129 million was spent in 2004-05 on treatment abroad for about 15 patients. Expressed differently, this is equivalent to the recurrent budget of a full health district or US$ 78,812 per referral. It hardly merits comment that this is inconsistent with the adoption of a prioritised EHP whose cost is a mere US$ 22 per person per annum.

The current health sector plan was formed with a clear understanding of the challenges faced in addressing health inequalities and Malawi's national health policy embodies a clear

commitment to principles of greater equity and improved accessibility and service coverage. Indeed, the EHP can be considered an explicitly pro-poor strategy designed to address the major burden of disease of poor rural communities. Moreover, the SWAp MOU firmly embraces the principle of equity in health.

These factors notwithstanding, progress in pursuing equity objectives in the first three years of the SWAp has been limited. During the course of this mid-term review numerous discussions took place to try and identify progress in the development and implementation of district resource allocation formulae. Various conflicting responses were given, with several different explanations of the formulae used, and some claims that the formula had been abandoned altogether since the MoF assumed responsibility for setting district budgets. The most recently available evidence suggests that the Ministry of Finance are currently using a modified version of an earlier Ministry of Health formulae. What emerges as significant from this confusion is not so much the technical issues surrounding a resource allocation formula, but the fact that the sector's strategy for equity and for district resource allocation is not more widely known and debated, not least by the district health management teams.

Whilst health resource allocation formulae vary from country to country in terms of the specific indicators used, most are based on a common set of variables. At the heart of all models is the capitation element, based either on crude total populations, or weighted according to various subpopulations such as: infants, children under five, women of reproductive age, and the elderly. Additional variables are included to reflect differences in such factors as: health needs; poverty or deprivation; remoteness or population density and other local variations relating to the costs of providing services. The weighting for each variable can be determined by several methods, although the population weighting (i.e. capitation element) typically dominates the overall allocation.

Current resource allocation practice seems to be based upon a MoH formula last revised in 2003/04. Since the formula was revised by the MoH the Ministry of Finance have assumed responsibility for setting district health budgets. It was difficult to establish with complete certainty, but it does appear that the MoF accepts the formulae and bases its allocations on it or something close to it. The variables included in the model and their corresponding weights are as follows:

- Population 50%
- Poverty 15%
- Under 5 Mortality 20%
- Remoteness 5%
- Presence of CHAM facilities 5%
- Presence of District Hospital 5%

The variables used in this formula are appropriate though it is not clear how the weights were established nor which indicators are used as proxy for factors such as remoteness. However, the formula is flawed in one important respect: it only covers Other Recurrent Transactions (ORT) and excludes Personnel Emoluments and allocations for drugs.
The district allocation for salaries (i.e. Personnel Emoluments) is not based upon any explicit formula, but simply reflects the "wage bill" for the current filled staffing establishment. The degree of equity in the allocation of PE budgets is therefore no more or less than a reflection the actual staffing in the district, which in turn is based upon historical decisions about the location of health infrastructure and the attractiveness of postings. This omission is critical since effective health care delivery depends upon the availability of adequate numbers of trained health professionals. With vacancy rates for specialist doctors in MOH facilities exceeding 80%, and rates for Medical Assistants and Clinical Officers in excess of 20% at all health facilities there are serious questions about the capacity of the Malawian health sector

to deliver even the basic elements of the EHP with any degree of quality across all facilities and districts.

Another key problem is that the formula is not rooted in any transitional adjustment process. Any health resource allocation mechanism must recognise that moving from a position of inequality to greater equality takes time. It is also much easier to effect a redistribution if the resources for disadvantaged areas can be found from growth monies rather than requiring an obvious cut in the budgets of favoured districts.

A maldistribution of health facilities and health personnel cannot be reversed overnight, whilst even shifts in the distribution of ORTs depends upon the absorptive capacity of districts. Whilst only limited progress may be expected in equity promotion in the final 3 years of the current SWAp it is essential that the MoH work with DPs and other stakeholders to revitalise their efforts towards this key policy objective and develop a clear strategic plan for health equity improvements with measurable targets and timescales for achievement. Similar considerations apply to improved service coverage and accessibility.

6.2. Improving Service Coverage and Accessibility

The Christian Health Association of Malawi (CHAM) has been, and continues to be, a critical component in Malawi's overall health care system, not least because its facilities tend to be based in remote rural areas where up to 90% of the population reside. The MoH acknowledges the important role played by CHAM facilities and is committed to the development of an integrated health care system in which CHAM facilities play an important complimentary role to GoM facilities, providing access to essential health care in remote rural communities.

The current SWAp makes provision for the MOH to enter into contracts with local non-government health providers such as CHAM to address gaps in service coverage by providing services in-lieu of government. Although in the long term, these Service Level Agreements (SLAs) offer the potential for contracting out the provision of the full EHP for discrete populations, their initial use has focussed on the maternal and neonatal health interventions specified in the EHP, and only comparatively recently to the EHP for under 5s. The SLA's set out the conditions and rates under which CHAM facilities are reimbursed for work done on behalf of the MOH on a procedure by procedure basis. The terms of the SLA require CHAM signatories to waive their existing user charges for selected procedures and instead to seek payment from the DHO out of the ORT allocation on the basis of a negotiated reimbursement schedule.

There seems to be some confusion as to the basis on which reimbursement levels should be set, and although, the MOH gave some initial guidance to DHOs on the negotiation of SLAs, DHOs retained a significant degree of discretion as to the setting of reimbursement levels on a procedure by procedure basis. The agreed reimbursement rates were to be based upon the direct marginal costs of the intervention (i.e. the actual incremental costs to the CHAM facility). This should not include staffing costs as CHAM already receives an MoH subvention for these costs. Not should it include the costs of drugs and medical supplies freely provided. In practice, however, fee schedules seem to be set more on the basis of the prices charged by CHAM. Several reports discuss of the level of subsidy that CHAM is providing where its prices fall below the reimbursement rate as if prices were a true reflection of marginal costs, which they are not.

It is not clear why such confusion over reimbursement exists. DHO's receive a budget for ORTs based primarily upon the size of their district population and the estimated costs of service provision (albeit given that those costs estimates are now out of date). If DHO's fund

SLA's for services at a higher rate than they themselves are funded it is to the detriment of those who continue to receive their services from MoH facilities. For reimbursement of SLA's to be based upon their actual costs or, even less justifiably, their prices, then this is to disadvantage the remaining population not covered by SLA's.

Although progress was initially slow, 52 CHAM facilities now have a contractual arrangement with the district to provide free services, of which 46 focus on maternal and neonatal services (MNH) only. Discussions with CHAM reveal that they feel the MoH has not been proactive enough in negotiating SLA'a and that CHAM has had to take the lead in establishing these contracts. CHAM is also cautious in its involvement with SLA's taking the view that there was a need to begin with MNH services in order to gain experience before expanding to the full package. CHAM claim that the standard formula they use for reimbursement represents only 70% of the costs that were calculated for these particular services during the costing of the EHP. However, it should be borne in mind that DHO's do not receive the full per capita costs of the EHP as it was calculated either.

Whilst the SLAs may have helped to improve the accessibility of maternal and newborn services in many districts, the change has to be seen in a broader context. On average. less than 2 SLA's have been negotiated per district. Only limited data is available, but according to a recent MSH study it would seem that around 10% of the population are covered by SLA's and that reimbursements under these SLA's represent only 3% of the ORT budget. The lower figure for expenditure may be explained by CHAM reports that many of their health units experience problems with repayments often having to wait for months to be reimbursed by the MoH. Whilst this is a separate issue from the contract per se, it is important that the reasons for these delays be investigated and dealt with.

A new SLA Cost Model was developed with MSH support in December 2006 by a small group of CHAM, MSH and MOH doctors. This provides standardised reimbursement rates for all components of the EHP (excluding TB, STI including HIV/AIDS and schistosomiasis). This same study explored various scenarios and the cost implications of extending the coverage and scope of the SLA's (e.g. an initial move from a maternal and neonatal package to also include a full under 5 year old health package). Concerns were raised about the affordability of this scenario as its costs would approach 10% of the ORT budget in most districts and exceed this figure in some others. Whilst not disputing the figures produced in the MSH exercise, more thought needs to be given to priority setting. To deny unserved populations access to health care because it involves difficult decisions about district resource transfers is untenable.

CHAM is currently synthesising its early experiences with the SLAs, and considering whether it should continue with the scheme. Since most, if not all of the SLAs are one year contracts there is a real danger that coverage may revert to earlier levels should CHAM's enthusiasm for SLAs wane.

If the MOH is to make any significant improvements in coverage of the EHP it will need to be more proactive in contracting services. Piloting of the full EHP should begin at the earliest opportunity. Beyond this, the MoH should also consider schemes that encourage CHAM providers to set up services in areas where none currently exist. To date contracts have only been signed with operational service outlets so that coverage improvements have only been for MNH services. There exist many opportunities for innovative contracting to encourage entry into unserved areas.

6.3. Reprioritising Equity and Coverage Through an Equity Fund

One of the main challenges in effecting substantive resource redistribution is that for each gainer there is a loser. The process can be somewhat painful when redistribution takes place

within a fixed resource envelop. However, the pain of redistribution can be reduced and made less obvious when it can be funded out of growth monies.

An earlier section of this report drew attention to the MOF's long standing failure to meet its funding commitments under the Abuja Declaration. Honouring this commitment would result in an increase in the MoF's current allocation to health of more than 50% over its current level of funding. To this would be added the year on year increment for GDP growth, estimated in the MGDS for the remainder of the PoW at around 6% per annum. Clearly these are potentially large funding increases, though nothing more than the MoF has already agreed. If these increases are realised, the MoH will be much better placed to implement its policies regarding improved equity and coverage.

It is strongly recommended that the MoH, its development partners and other stakeholders lobby the MoF to honour their funding obligations to the health sector on the understanding that the additional funds be used explicitly to address these equity and coverage goals. The additional funds would be earmarked specifically for pro-poor activities, not least an increase in the relative share of the recurrent budget going to the poorest districts. Whilst it is probably unrealistic to expect the MoF to increase its allocation by the required 50% in a single year, a commitment to an annual increase of, say, 8% above the rate of growth of public expenditure would achieve that level within 6 years, whilst a rate of 4% increase would take around a decade.

It is envisaged that the "equity fund" would be available for the following purposes. First, as a top up to hitherto underserved districts so as to "equalise" their recurrent funding relative to other districts and to underwrite the incremental costs of improving coverage in those areas. In other words, the fund would allow for equity and coverage improvements to be achieved - over and above current levels of funding - so the best funded districts would feel less pain in the redistribution process. Secondly, a proportion of the fund, say, 15%, would be set aside for innovative pro-poor schemes and for research and advocacy support. Districts would be invited to bid for funding by submitting costed proposals for demonstrably pro-poor initiatives or for research proposals with this theme. Providing that the fund was properly resourced, this latter option would provide an additional incentive for districts to be pro-active in pursuing equity and coverage objectives.

The precise mechanisms for fund operation are not mapped out here, since Malawi is fortunate in already having formed a civil society advocacy group for pro-poor health planning and health inequality reduction. The Malawi Health Equity Network (MHEN) was formed in the year 2000 with the remit of equity advocacy for health, influencing policy development and practice, through the Parliamentary Committee on health. The MHEN has been active in gathering and disseminating evidence on health equity priorities in Malawi, and held a country level meeting in April 2006 to review evidence on poverty and to discuss options and priorities for a reduction in health inequalities. The MHEN reports to the MOH's Equity and Access subgroup.
It is recommended that the Ministry of Health's Equity and Access subgroup be revitalised to address the equity and coverage challenges outlined in this MTR. Specific tasks for the sub-group would include:

- Keeping the ME&R TWG appraised of relevant research on pro-poor interventions.
- Informing the MOH of wider poverty monitoring initiatives in Malawi and their links and relevance to the health sector.
- Overseeing periodic analyses of existing data to assess progress and potential in reducing inequities and increasing coverage and to inform annual reviews and evaluation exercises

- Ensuring that the technical working group and MoH are fully appraised of equity monitoring initiatives and relevant pro-poor interventions
- Providing technically support for the implementation of pro-poor health interventions and research within the SWAp (such as a review of resource allocation formula and the allocation of resources to different tiers of the health care system)
- Supporting relevant research in the equitable utilisation of health resources (e.g. national health accounts and beneficiary incidence analyses)
- Determining the information needs for reducing health inequalities and to ensuring that health information systems meet those needs.

It is also envisaged that the subgroup would play a key role in the design and oversight of the fund.

6.4. Conclusions and recommendations

Whilst improved equity and coverage were central to the design of the current SWAp, the MoH and its partners seem to have neglected these objectives in the complex process of change. Although work has taken place to develop and implement a formula for resource allocation to districts, the formula does not cover staffing costs or drugs. There is no formula or guidelines for sub-district resource allocation nor any easy means of tracking resource use within the district cost centre. The transfer of districts from MoH to the district administration has led to some confusion over how to progress equity objectives. Whilst some progress has been made in improving coverage, at least for maternal and neonatal services, these gains are modest in relation to the overall scale of the problem. There needs to be some fundamental re-thinking of the SLA model, and the basis for funding.

The Equity and Access sub-group are envisaged as a key resource in the MoH's implementation of the following recommendations.

- The MoH and MoF need to liaise to develop a clearer long term strategy for equity in health, and to agree targets and timescales for the reduction of health inequalities over the next decade..
- The MoH and MoF need to revise the formula for district resource allocation to include all resources and not only ORTs, and a long term adjustment process.
- The MoH need to provide guidelines on sub-district resource allocation practices and to work with the MoF to produce a formula for determining how district resources are allocated between the district hospital and other activities
- Existing accounting systems do specify the amount spent on SLAs so that it would be worthwhile establishing SLA's as a separate line item under the DHO budget
- The MoH should work with CHAM and other stakeholders to pilot more comprehensive SLA agreements. The pilots would aims to test the feasibility of longer term contracting for full EHP coverage and would also seek to encourage entry of CHAM providers into new geographical areas to serve previously neglected populations.
- Ultimately, the MoH needs to clarify its thinking regarding SLA's and decide whether they are to be the primary instrument for extending EHP coverage and for better integrating CHAM facilities into a national network of care free at the point of delivery

- Recognising the difficulties of funding equity and coverage improvements out of existing budgets, the MoH should establish an equity fund, the specific purpose of which would be to encourage pro-poor innovations and service developments. The core of this fund is envisaged to come from the MoF as it honours its commitments to increases its allocation to health to 15% of public expenditure. The fund could also serve as a mechanism for DPs wanting to prioritise contributions to the sector according to equity and coverage objectives.
- The MoH to work with the equity and access sub-group to provide the necessary environment for effective pro-poor planning (e.g. lobbying and advocacy; analytical skills; dissemination of good practice).

ANNEX 10 Procurement

MALAWI HEALTH SWAP MID-TERM REVIEW

PROCUREMENT REPORT

Authors: Wedex Ilunga, Simon Chirwa and Arnold Chirwa

1.0 Introduction

The procurement team comprised Messrs Simon B Chirwa Procurement Specialist, World Bank Malawi Country Office, Arnold Chirwa Assistant Director Office of the Director of Public Procurement and Wedex Ilunga Procurement Specialist, World Bank Zambia Country Office. The team is grateful for the assistance received from the various entities and staff interviewed who kindly shared their experiences on implementing procurement under the Malawi Health Swap.

2.0 Terms of Reference for the Procurement review of the Health Swap

The Terms of reference include the following:

- Review of the procurement capacity, arrangements at all levels of the Malawi Government Health Swap implementing agencies such as The Ministry of Health (MoH) Headquarters, Central Medical Stores (CMS), training Institutions - Malawi College of Health Sciences(MCHS), Regional and district assemblies – Central Hospitals, District Hospitals and MoH Headquarters
- Review progress on the institutionalization and decentralization of the procurement function at district and central hospitals and MoH Headquarters in respect of the functioning of the Internal procurement Committees (IPC's)
- Review use of guiding documents for procurement (Legal framework, Guidelines, desk instructions, bid documents and internal controls and quality assurance systems for procurement
- Review progress in the implementation of the procurement improvement plan
- Review progress inn the use of and implementation of the procurement plans

The TORs were addressed through application of a questionnaire similar to the one that was used in the recent procurement audit of institutions implementing the Health swap.

3.0 Findings and recommendations

Individual findings and recommendations are provided in the detailed assessments that were carried out for each of the 4 district hospitals, 1 Central Hospital, The MoH Headquarters, Malawi College of Health Sciences – Lilongwe, Central Medical stores and CHAM. The procurement team for the MTR discussed both the findings and recommendations for each of the institutions including the review of the status of the procurement improvement plan with the representatives of the respective institutions visited. A list of those with whom discussions were held at each institution is included as an Annex at the end of this report. The main findings of the team were as follows:

3.1 Positive Developments

- Most institutions have to a large extent started the institutionalization of the procurement function
- Procuring entities are to varying degrees implementing procurement improvement plans in line with recommendations of audits
- Capacity at Central Medical Stores for procurement of Health Sector Goods is being strengthened through a Technical Assistance and restructuring of the organization. Central Medical stores have gained experience to administer large value procurement of health sector goods (drugs and medical supplies) through international competitive process from prequalification to award of contract.

- Staff are interested in improvement of procurement and are willing to learn

3.2 Challenges and constraints

- Human resource capacity to manage procurement cycle is inadequate at all levels. Critically important, the capacity at MoH Headquarters is inadequate to provide leadership to all levels in the procurement system. The deficiency is also manifest in planning and strategic management.
- Knowledge and experience in the procurement of health sector goods, works and consultancy services is very deficient at MoH Headquarters, central and district hospitals which have resulted in reliance on UNICEF whose role is ambiguous as they are providing both technical assistance and are suppliers thereby presenting a potential conflict of interest. The provision of technical assistance may therefore not be impartial and nor be in the best interest of the client given this scenario.
- There are significant delays occasioned by external (support) institutions in procurement of works and to some extent goods and consultancy services. Significant delays have been caused by reliance on Director of Buildings on procurement of works
- There is lack of clarity in some of the circulars and documents prepared by Office of Director of Public Procurement and disseminated to procuring entities
- Unpredictability of funding (and or perception of it) to institutions is affecting procurement planning to an extent that most planning is done monthly based on funds received
- Central procurement to realize savings from economy of scale is flawed with inadequate consultations with lower levels resulting in large quantities of goods pushed to districts without adequate consultation
- There is lack of clarity in roles and responsibilities in procurement of health sector goods between MoH Headquarters and Central Medical Stores

4.0 Recommendations

Specific recommendations were discussed with each entity during the MTR. General recommendations on broad issues as required by the Terms of Reference are outlined in the table and text below:

4.1 Table of common findings and recommendations

Issue type	Finding	Recommendation	Time frame for action
1. Status of implementation of Procurement plans	Procurement plans not consistently prepared	Budget submission should always be supplemented by a Procurement Plan	Start of each financial year
	Procurement plans not shared with oDPP	ODPP should demand explanation for any procurement undertaken outside procurement plan. All institutions should share their procurement plans with ODPP at beginning of year	Continuous
	Procurement Plans	Funding should be	From November

	reviewed too often based on monthly funds received	predictable so that procurement planning is done holistically in advance. Districts should be advised on good planning principles and desist from monthly planning. MoH should demand quarterly reports against plans	2007
	Abbreviated procurement plan more often used but lacks sufficient details to guide and monitor implementation	Use detailed plan with requirements for approvals by ODPP and Partners clearly indicated to better forecast cash flow position and better estimation of procurement period. Procurement plans should be prepared based on minimum expected but certain funding.	From October 2007
	Link between District Implementation Plans, budget, procurement plan and cash flow missing	All plans should be revised after budget approval and a final version of plans formally submitted to MoH. MoH should put in place systems to review plans and advise districts other than making it a collative exercise. Districts need to be advised on how to link DIPs, budget and procurement plan and how to develop a realistic cash flow	June 30, 2008
2. Implementation of the procurement improvement plans	There is institutional awareness of the findings of the previous procurement audit and recommended actions but no concerted effort is put in place to improve the situation. Developing and implementing improvement plan lacks champion	MoH to designate a senior officer at hospital level to be responsible for procurement reporting. Appoint an officer to be responsible for procurement at district/hospital level. Involve Zone Officers to report the status of procurement improvement on quarterly basis	December 31, 2007
	Report on status of implementation of improvement plan not systematic	Designate an officer to report on procurement at all entities and require quarterly report from Zone Officers	December, 31, 2007
3. Use of guiding documents for procurement (Legal	Not all institutions have the main procurement documents and	Head of each institution to catalogue list of key documents for	December 31, 2007

framework, Guidelines, desk instructions, bid documents and internal controls and quality assurance systems for procurement)	documents obtained from workshops not shared	implementation of PoW by subject and demand relevant departments to have copies of the documents. Each institution to have at least MoU, PoW, yearly approved budget, Financial Management Act and Procurement Act.	
	Difficulty to understand and interpret documents	Each institution to prepare a circular of 2-3 pages interpreting difficult to understand documents. Seek guidance from MoH headquarters and ODPP	March 31, 2008
	Certain provisions not considered in procurement documents such as payment, delivery and complaint handling mechanism	ODPP to revise RFQ and Bid documents to take into account delivery and payment terms among others	July 31, 2008
	No institution has prepared its own simplified procurement guidelines or manual	Prepare flyers and simplified guidelines for procurement of goods, works and services	March 31, 2008
	Institutions not clear on how to handle clarifications, debriefing of bidders and how to handle complaints. Complaints by bidders handled through emotion and fear of authority	Only written complaints should be entertained. Bid documents and Regulations should contain complaint handling mechanism. ODPP should develop a flyer/circular on how to handle complaints by bidders	Continuous
4. Procurement capacity and Procurement arrangements at all levels of the Malawi Government Health Swap implementing agencies such as The Ministry of Health (MoH) Headquarters, Central Medical Stores (CMS), training Institutions etc	Staff not in place, procurement function delegated. Capacity building is targeting staff whose core work and future plans may have nothing to do with procurement	Appoint key procurement officers for CMS and appoint procurement officer for each district who should be the prime target for capacity building in procurement	June 30, 2008
	Cross cutting Inadequate knowledge and experience for procurement of health sector goods, consultant services and works at all levels	ODPP should organize short courses on preparation of bid documents and evaluation of bids for works and consultants for procurement staff in position. World Bank	June 30, 2008

		should organize another training in procurement of health sector goods for CMS and MoH Headquarters	
	Procurement risk introduced through delays occasioned by institutions supporting the implementing institutions. One institution designed to support many GoM departments that contribute to delays is Department of Buildings. Other key institutions that cause delays are World Bank, ODPP and UNICEF	(i) Procuring Entities should discuss with supporting institutions before their plans are finalized to take into account those institutions capabilities (ii) There should be formal written requests and agreements to guide and mitigate risks introduced through involvement of support institutions. (iii) There is need to share service standards and observance of process (time) by the MoH and the institutions within Government and outside of Government that facilitate procurement.(iv) Need to carry out realistic assessment of capacities of support institutions and open to use of private sector entities when Government entities have limited or no capacity to support implementing institutions (particularly for procurement of works and consultants services for works)	December 31, 2007
5. Institutionalization and decentralization of the procurement function at district and central hospitals and MoH Headquarters in respect of the functioning of the Internal procurement Committees (IPC's)	All institutions visited have significantly started institutionalization procurement function except for the MCHS. Staffing still remains an issue	Each institution should have different officers/ group of people with minimum cross involvement between soliciting bids, evaluation of bids, approval of bids and signing of contracts and except for secretarial work of procurement officer , no officer should be involved at all levels. ODPP should review the functions of IPC so that evaluation is undertaken by evaluation committees of specialists	November 30, 2007
	Some staff are still	Appoint or designate a	June 30, 2008

	carrying out procurement even when this function should now be carried out by the procurement officer	procurement officer and each institution should prepare its own circular to clarify new requirements for procurement.	
	Clarity some times lacking on oDPP circulars on thresholds and procurement approval limits for the IPCs and when oDPP approvals are required	ODPP to revise circulars to require Purchasing Limits for entities to be at par with limits for request for quotation for each category of procurement. Basis of purchasing limits should be uniform such as contract, order and not mixture of contract, item or order for different entities. For clarity re-categorize entities realistically based on capacity	June 30, 2008
	Potential conflicts of interest exist in many institutions (i) same staff carry out procurement process, evaluations and approvals in the IPC's (ii) UNICEF is used both for Technical Assistance (TA) and as Supplier including on procurement where they may have offered TA.	(i) Each institution develops and disseminates circular separate roles and responsibilities. Appoint procurement officers and ODPP to clarify the functions of IPC to exclude evaluation (ii) UNICEF should not provide goods on contracts where they are also providing TA	December 31, 2007
	Composition and numbers of members of the IPCs and evaluation Committee members need improvement	ODPP to provide written guidance on composition of IPC and Evaluation Committees at district level	June 30, 2008

5.0 Other Issues

5.1 Fiduciary management of the Health Swap beyond March 2008

The World Banks support to the Malawi Health Swap is made possible through the Health Sector Support Project. This project comes to an end at the end of March 2008. Based on the Health Swap MOU agreement between the donors and the Government, the World Bank has the responsibility on behalf of the Health swap donors, undertake Fiduciary management. As part of this role, the bank has been undertaking procurement reviews and providing no objection as appropriate for all prior review contracts. With the completion of the Bank supported project, the Bank would not be in a position to fund this support.

It is proposed subject to agreement y the Health Swap Partners that trust funds be made available to the Bank from which the continued support may be derived. Ideally a consultant would be hired by the Bank to provide such support.

5.2 Unpredictability of funding to institutions affecting procurement planning

Funding to hospitals is not provided in a predictable manner and not on agreed cash flows. Sometimes hospitals receive half of the budgets in the last three months. Based on this historical information, districts find it difficult to plan in advance. The DIPs and procurement plan are therefore prepared to fulfill a MoH requirement and are in practice not used. Districts plan their procurement requirements on monthly basis thus undertaking many adhoc procurements. All procurement are made on cash basis

Whilst funding for procurement of drugs is clearly indicated per district and disbursement also indicate the amount for drugs, there is no clear provision of funds for procurement of drugs to central medical stores but it is expected that CMS would procure drugs. Additionally there is an understanding that CMS would generate its own funds from sale of drugs from initial seed money. However the funding and expected operation of CMS to generate its own funds is not based on a written record. As such CMS find it difficult to plan for annual tenders.

MoH has signed Financing Agreements with a number of non- health institutions such as CHAM and Training Colleges. The Agreements specify among other things funding and output requirements. These Agreements are hardly honored especially in terms of release of funds by MoH. This situation forces institutions to wait before they initiate procurement and in cases when institutions have gone ahead to finalise procurement, they have taken many months before payment of goods and services is done.

It is recommended that (i) hospitals be trained to draw realistic cash flow based on which they should be funded (ii) CMS should formally submit its requirements for additional funding for procurement of drugs in advance of the financial year and MoH/CMS should advise CMS of available funding so that CMS can plan for bulk procurement (iii) Financing Agreements should be negotiated in transparent manner with all key staff involved and in good faith. Funding to honour those financing agreements should be clearly stipulated in budget allocations.

5.3 Consolidation of procurement needs for procurement centrally

There is general agreement that items such as capital equipment and drugs should be procured centrally by the Ministry of Health and or the central medical stores. However, based on past experience all the institutions (central and district hospitals interviewed) expressed concern on the historical flaws experienced in the past involving central procurement. For example, no consultation has been made by the CMS in determining the equipment needs of the hospitals. The CMS has regardless proceeded to supply in large numbers at different times and to different hospitals equipment that is not required such as trolley, mattresses, beds, wheel chairs, blood pressure equipment, medical trolleys and bedside screens when these were either not required or in quantities exceeding requirements.

There is no systematic measure of consumption of drugs at hospitals. Supply chain manager, a system implemented through a technical assistance by USAID Deliver appear to be measuring consumption from hospital pharmacy stores. Even with USAID Deliver Supply Management system, there is no direct responsible person from MoH who collates and analyses the data and provides management information on the quantities of drugs to be procured each year. Drugs appear to be procured based on a determination by Central Medical Stores.

It is recommended that (i) though the CMS and the MoH Headquarters have potential comparative advantage to carry out the procurement of drugs and equipment perhaps more competitively and effectively particularly for ICB, if such central procurement is to be undertaken at all, the district and central hospitals should be consulted so that the correct requirements (quantities and specifications) meet the needs of the user (ii) There should be an advisory committee similar to the current composition of the Medical Buying Committee who should be reviewing the drug requirements of the country in terms of quantities, funding and other policy issues.

5.4 Staff recruitment and institutionalization of procurement function

Not all health institutions do not have procurement staff in place. In many cases procurement is being undertaken by other, general, staff within these institutions. This situation threatens the long term development and institutionalization of procurement and capacity building within the health sector. Though capacity building may have been undertaken the current approach may not be sustainable as capacity is being built in staff who are not intended to carry out procurement in the long term.

The capacity of the MoH to carry out procurement is currently inadequate. The existing staff clearly does not have experience to carry out procurement of consultant services and works. As the staff in the MoH are responsible for providing guidance and coordination of procurement both within the MOH and with MOH SWAp partners, the current inadequate capacity will slow down procurement and do little to improve procurement capacity and support of the SWAp components. Several procurement of works and consultant services have been delayed since the inception of the SWAp. For example the MCHS signed a contract to procure vehicles using SWAp funds in November 2006. Yet at the time of this review in September 2007 delivery of the vehicles had not taken place. The delay is due to both weak understanding of procurement procedures within the MCHS and the MOH and of changes to the laws on tax exemption, as well as delays in responses from the Treasury to MOH requests for clarification. In fact, in this case the waiver was not necessary in the first place and evidence is not available that the MoH advised the MCHS accordingly to avoid unjustified delays as there was adequate budget to fund the vehicles' procurement inclusive the payment of taxes.

Similarly, works procurement for the MCHS have delayed considerably – by at least 6 months - due to inadequate capacity within the MoH to facilitate dialogue between the MOH, ODPP and Director of Buildings (DOB), the latter of which is assisting the MCHS. MoH must seriously consider supporting a mixture of long term and short term training in procurement for staff with prerequisite basic qualifications to understand procurement, with short term training focusing on procurement of works and consultants as a matter of urgency

Central Medical Stores is in the process of restructuring itself and have the experience in procurement of large contracts. However the capacity of CMS is propped by Consultants. With consultants contract expiring in April 2007, it is imperative that CMS urgently (i) recruit all key positions in procurement such as Chief Procurement Officer, Procurement Pharmacist etc (ii) Consider employment of short term procurement consultant after April 2008 to build capacity of newly recruited staff for a period of upto one year should current technical assistance contract come to an end

5.5 Separation of roles and responsibilities between Headquarters and CMS is not clear

Both MoH Headquarters and CMS undertake procurement of health sector goods. Both have procured drugs and equipment at certain point in time. Lack of clarity of roles give rise to adhoc decision to those in authority as to who should procure and may lead to waste.

It is recommended that MoH should develop a simple manual clarifying institutional arrangements for procurement of general goods, medical equipment, other capital equipment and health sector goods. Such clarity of roles would clarify expectations and funding requirements by each party.

5.6 Procurement of Health Sector Goods (Drugs, medical supplies, ITN, Vaccines and Condoms)

The review observed that (i) there is lack clarity of procurement responsibilities for health sector goods between MoH Headquarters and Central Medical Stores (ii) there is no capacity at MoH Headquarters for procurement of health sector goods (iii) there is inadequate procurement planning including financial planning for procurement of these goods (iv) Quantification to determine country needs is not systematic and there is no central point of reference for quantification of requirements (vi) there is inadequate experience in process requirements for procurement of health sector goods at Central Medical Stores and (vii) there has been over reliance on UNICEF as stop gap measure with little informed desire to build capacity within the system.

The review recommends that (i) procurement of health sector goods be the responsibility of Central Medical Stores. Central Medical Stores should continue to be strengthened and urgently would require all key positions in procurement to be filled (ii) MoH should designate a focal person for quantification of annual requirements. Due diversity of requirements, it is further recommended that a body similar to the current Medical Buying Committee should review and approve the annual requirements including the corresponding funds required to procure the goods (iii) MoH/CMS should consider long term framework contracts for a period of upto three years so as to reduce the need for long tendering processes on annual basis. Such long term framework contracts are only feasible with good quantification, financial planning and commitment by all involved (iii) invest in training of procurement staff in general and specifically in the procurement of health sector goods and (iv) MoH should consider outsourcing distribution of ITNs, condoms and drugs through two year contracts. These contracts should be performance based with clear checks and balances.

As for the current specific problems faced in the procurement vaccines and nets, MoH should utilize the SWAp Governance structures by holding joint meetings with Partners to find a common solution other than taking unilateral decisions. In such meetings, we propose that MoH should present capacity constraints to undertake competitive tender, time constraints for goods to be procured, life threats caused by delays in procurement of goods and medium to long term commitment to plan for future requirements. Consideration could also be given to reasonable requirements to avert crisis.

5.7 Capacity building and training

Almost all institutions interviewed acknowledged the need for training and capacity building of the IPCs and the procurement officers. The training for the IPCs would be to enhance their understanding of their roles and in particular training on ethics, confidentiality and how to avoid conflicts of interest. Procurement Officers will need to be trained on how to prepare bidding documents, management of tender process and record keeping.

5.8 Procurement undertaken by Non Public Institutions

The review team observed that non public institutions such as CHAM were required to undertake procurement following Public Procurement Act which was putting procedural constraints because such processes are not built into their systems. This requirement also puts constraints on their capacity as they have to formulate new positions and institutions to respond to the Public Procurement Act.

It is recommended that non-public institutions should use their own established systems to undertake procurement or alternatively a manual need to be developed specifically for use by non public institutions. If non public institutions are allowed to use their own systems, then the Ministry of Health should review such system and recommend improvements for them to be acceptable to good procurement practice.

5.9 Support and clarifications from the Office of the Director of Public Procurement

The review team acknowledged the need for the oDPP to continue to provide support to the implementing institutions in the following specific areas:

i) Clarity of circulars and or interpretation of the same with respect to the thresholds and procurement limits for use of procurement methods. It is recommended that limit for use of quotation for a category of procurement should be the same as limit of procuring entity to undertake procurement without ODPP prior review

ii) ODPP need to review RFQ documents so that they are simpler to use and remove requirements meant for bid documents, review bid documents to include goods delivery terms, payment terms and procedures for handling complaints

iii) Require institutions to engage the services of construction experts such as Engineers and Building Technicians within or from outside Government to procure works without necessarily requiring them to involve Director of Building as it appears the DOB has its own capacity constraints. DOB should be involved only in complex works

iv) It appears the Medical Buying Committee may not have a legal mandate under the Public Procurement Act. The composition appears not to take into account competencies required for procurement of drugs. The current committee would best advise MoH at planning stage for procurement of drugs. It is recommended that the committee be reconstituted as a Specialized Procurement Unit (SPU) with competencies of knowledge of pharmaceuticals and procurement functions. Its responsibility and roles should be clearly defined and separated from CMS Internal Procurement Committee

v) Procurement threshold should be based on the capacity assessment of the institutions and threshold based on per item should be realistic to the capacity of the institutions required to scrutinize those procurement. Entities will need to be categorized according to their capacities.

Annex 11 Harmonisation, Alignment And Governance

MALAWI HEALTH SWAP MID-TERM REVIEW

HARMONISATION, ALIGNMENT AND GOVERNANCE REPORT

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1. Introduction and Background

Introduction and Definitions

The Malawi Health SWAp was set up and agreed by the Government of Malawi and its funding partners, using as their guiding principles that there would be: a single health strategic framework, a common expenditure framework, a common monitoring framework and better coordinated procedures for funding and procurement. The purpose of bringing in a sector-wide approach is to improve the harmonisation of different actors' interventions in a sector, and to increase alignment with government policies and procedures. It is therefore vital that all actors contributing to the health sector in a country discuss and agree the nature, scope and scale of the common strategic framework, its implementation and the nature, scope and scale of each partner's contribution. A SWAp therefore requires strong and open partnership working, where the vision and requirements of each partner is discussed, challenged and, where possible, accommodated to ensure that the health sector policy and strategies remain coherent and focused on improving health.

The Ministry of Health and many of its funding partners signed a Memorandum of Understanding in 2004, which laid out their understanding of the above principles. As of 2007 six partners have agreed to pool their funding for the health sector: British Government through DFID; Norwegian Government; World Bank; UNFPA, Global Fund and German Government. A further four partners have signed the MOU as discrete donors: UNICEF, WHO, CHAM and GTZ. The African Development Bank, JICA and USAID are also substantial funding partners but have to date not been able to sign the MOU. However, they have verbally committed themselves to aligning with the single health development framework (the Programme of Work 2004 -2010).

Since the Programme of Work (POW) commenced, and the MOU was signed, in 2004, there has been high turnover of staff both within key posts in the Ministry of Health and within the donor community. Some turnover is expected in a three year period, however the scale of staff attrition, particularly in the MOH, has meant that there are few people left who were involved in the initial debates and negotiations that led to the setting up of the SWAp. There is also some confusion, amongst all parties, on the terminology surrounding the SWAp, with a discourse developing around who is 'in' and who is 'out' of the SWAp. Strictly speaking all signatories to the Memorandum of Understanding is 'in' the SWAp. Partners in Malawi have taken a more liberal interpretation so that anyone working within, or contributing to, the POW is considered as being 'in' the SWAp, as they are working to the national health sector strategic plan. A brief glossary is provided here.

Sector Wide Approach (SWAp):

- " an *approach* which involves a *different type of relationship* between government and development partners;
- *a mechanism through which support* to public expenditure programmes *can be better co-ordinated;*
- *a means of improving aid effectiveness - by improving the efficiency and effectiveness* with which all resources are used, and accounted for, in the sector." (UNFPA/HLSP 2005)

Programme of Work (2004 – 2010)

The Malawi Health Programme of Work is the Malawi National Health Strategy for 2004 – 2010. The POW includes the aim and objectives of the health sector up to 2010, and provides

a guideline to those strategies that need to be implemented and improved in order to implement the essential health package and attain Malawi's national health objectives.

Essential Health Package (EHP)
The EHP is the agreed set of health interventions that most likely to improve the health of the greatest number of Malawians. It is a pro-poor package that emphasises the interventions that will have the greatest impact on the poorest and those in poorest health in the country.

Pool Donor
A pool donor is a development partner that has agreed to put their funds into a common fund, deposited with the Reserve Bank of Malawi, and to align fully with MOH planning, financing, monitoring and reporting procedures. These funds are treated as 'on-budget' within the Malawi Government budget, and are included in the GOM calculations of foreign currency reserves.

Discrete Donor
A discrete donor is a development partner that has signed the MOU and agreed to align planning, monitoring and reporting procedures with those of the MOH, to the extent allowed by their individual institutions.

Other discrete donors exist, such as ADB or USAID, who have not signed the MOU, but who attempt to align with government processes where possible.

Purpose of this Section

The Terms of Reference for this section of the report requested the MTR team to:

- assess the effectiveness of the financial modalities of each partner (GoM, Pool and Discrete donors) to the health budget during the first three years of the POW implementation;
- assess the level of partners' harmonisation and alignment of operational requirements in line with the Health SWAp MOU
- assess the extent to which DPs, MOH and GOM have harmonised their planning, Monitoring and Evaluation activities in line with the Health SWAp MOU
- assess the extent of harmonisation of M&E activities with other frameworks such as MDGs, MGDS, NAC's M&E and MOLG's M&E;
- assess the effectiveness of the SWAp Governance structures and review process in promoting harmonisation, coordination and collaboration and reducing levels of effort amongst all stakeholders (e.g. Health Sector Review Group constituencies).

2. Methodology

In order to respond to the questions raised in the TOR, the MTR team reviewed MOH documents, GoM related documents, reviewed the international literature on SWAp governance 'best practice', interviewed representatives of MOH departments, other government departments, donor representatives and non-governmental/civil society representatives. The team also attended several technical working group meetings to observe proceedings and had group interviews with TWG members and the Health Donor Group.

3. Findings

3.1. Assess the effectiveness of the financial modalities of each partner (GoM, Pool and Discrete donors) to the health budget during the first three years of the POW implementation;

Total development support to Malawi in 2005/06 was US$ 497 million (*Malawi Government Annual Debt and Aid Report July 2005 – June 2006*). General budget support was 29% of total, with health as the largest recipient sector receiving 13% of this and HIV/AIDS as a functional sector receiving slightly below 6%, a figure which is likely to have increased since 2005/06. The donors providing budget support were DfID, World Bank, EU and Norway. From 2006/07 the World Bank ended its general budget support, and there are just three donors left providing GBS. All the above except EU also provided pooled funds for health.

The largest group of development partners is frequently referred to as *discrete partners*. In practice the *definition varies* according to the information/data available, for example, the MOU refers to modes III and IV, and sometimes even mode II. For all practical purposes discrete donors may be defined as those funding through all mechanismsother than general budget support and pooled funding, though working in the SWAp context, supporting the POW.

Relative strengths and weaknesses of the different funding modalities are summarised in the Financial Report Annex, using a number of different variables, such as flexibility in utilisation, predictability, ease of disbursement, administrative overhead/transaction costs, effectiveness, alignment and harmonisation.

These are summarised as follows:

- *General budget support* is the preferred option for MOF, providing the highest flexibility, predictability, as well as the highest degree of alignment (with MOF procedures), often with relative low transaction costs.
- *Pooled funding* is the preferred option for MOH, as it is likely not only to increase the overall budget available, but also provides high degree of predictability of funds coming in, flexibility in use (although depending of conditions), disbursement according to agreed principles, relatively low long term transaction costs due to common approach, high degree of harmonisation between donors, and even more important, high degree of alignment with Government.
- *Direct funding*, but through a separate account may share many of the same benefits as pooled funding, although with somewhat higher transaction costs (e.g. separate account requiring separate routines, mechanisms, etc.), but may have a high degree of harmonisation and alignment.
- *Direct funding, but earmarking*, is often a preferred option for development partners, due to focus on a specific priority. This is often an important mode in politically unstable situations, as well as to protect certain groups or health problems which are particularly vulnerable to changes. The summary of the transaction costs of such funding is often found to be very high, and harmonisation and alignment relatively low.
- *Project funding* may be the only alternative in many cases, either due to poor implementing capacity of the MOH, complex/unstable political situations or fragile states, areas or groups with poor coverage or special conditions from the donor's side. By definition, a project has a beginning and an end and sustainability becomes a key issue. From the MOH side this may be seen as separate and even outside their scope of work, but may also be seen as an addition or supplement to the work carried out. Transaction costs to the MOH may be low, but the ability to integrate (align as well as harmonise) is the weakest aspect of this modality. The long term effectiveness in

obtaining improvement in a broader set of health outputs and outcomes may often be relatively low, but depending on the profile and stability of the project.

The MTR team has found that financing modality as such is of less importance than the degree to which individual development partners are aligning their planning, implementation monitoring and reviews with government processes. While budget support and pooled funding may force a degree of alignment, individual funders may be part of a pooled fund but still Impose separate procedures (e.g. Global Fund and World Bank). There is in fact enough pooled funding making up the health SWAp to help smooth over some of the rough edges created by earmarked, project oriented discrete funding. However, it should be noted that discrete funds continue to bring with them added burdens in terms of separate planning frameworks, different reporting frameworks (programme and financial) and different sets of meetings, thus increasing transaction costs.

3.2. Assess the level of partners' harmonisation and alignment of operational requirements in line with the Health SWAp MOU

3.3. Assess the extent to which DPs, MOH and GOM have harmonised their planning, Monitoring and Evaluation activities in line with the Health SWAp MOU

The pool donors have aligned many of their processes with those of the Ministry of Health's, as outlined within the Memorandum of Understanding. Alignment is working well in terms of:

- sharing a common strategic plan (POW)
- sharing a common financial report (FMR)
- agreeing to fund a common operational plan (AIP) on an annual basis
- using the MOH's programme progress reports and bi-annual review process as their own review and reporting mechanism.
- sharing successes and failures and loosing attribution of outputs and outcomes to particular partner inputs.
- recognising that there is a trade off on both sides with government sharing its prerogative for decision making while retaining reasonable final say; with partners forgoing attribution and hands-on control of their inputs.

The only exception to this amongst pool donors is the Global Fund, which could be described as being 'in' the pool, but not 'of' the pool. Global Fund planning cycles are separate to those of the MOH, and resemble more the bilateral planning exercises undertaken by USAID or ADB, albeit at least with more MOH and other donor participation than is the case with either ADB or USAID. The Global Fund also sets 'conditions precedent' bilaterally with the MOH without discussion with other health donors. Finally, in order to monitor progress towards meeting these conditions precedent (as well as to set further ones) the Global Fund/LFA may initiate their own assessment processes. The results of these assessments may not be communicated to either government or other health donors, except to say whether the conditions are deemed to have been met and funds can be disbursed, or that conditions have not been met (or new conditions are to be imposed) and therefore funds cannot be disbursed.

The discrete donors interviewed that are signatories to the MOU display tremendous good will and desire to be better aligned and harmonised with MOH systems and procedures. Even though their own organisational requirements require these partners to use separate, centrally determined planning and reporting formats, those interviewed suggested that they are using, or moving towards using, MOH procurement systems and reports as their own.

However, there is still some way to go before monitoring and reporting are fully aligned with MOH system. UNFPA undertook a separate review of the MOH's sexual and reproductive health activities in parallel to the POW Mid-term Review, though efforts have been made to include the UNFPA review results within the MTR. UNICEF is funding a separate review of the EHP, with a focus on costing, but which also is looking to update elements of the EHP in line with new evidence on effective health interventions (e.g. they are hoping to include further paediatric AIDS interventions in a revised EHP). The proposed task has merit as the MOH and partners need a single document that records all significant changes that have been made so far, as well as the cost implications. However, it is unclear how the results of this EHP review are likely to be discussed within the appropriate Technical Working Groups, or Health Sector Review Group, forums created for debating revisions to MOH strategies. Health information used for reporting on UNICEF, UNFPA or WHO focus activities (EPI, SHR or TB) is often different to health information reported on for the same activities in the MOH HMIS (see Annex __ Monitoring and Evaluation for further information).

The widest discrepancies between the systems and procedures of 'non-signatory' discrete donors and the MOH lie with the planning and monitoring processes. It would appear that some discussions occur between the individual donor planning team and the relevant technical department within the MOH. It is less clear where discussions take place about the impact of the proposed new project will have on the rest of the health sector, especially in terms of consequences for front line staff time (both in terms of training them up and then time for delivering services), and on MOH support services. USAID, for example, were carrying out two parallel exercises during the period of the mid-term review. One exercise, to assess the logistics capacity of the Central Medical Stores (re: the imminent introduction of new malaria treatment, ACTs), overlapped with the work of the review team members assessing pharmaceutical procurement, logistic and supply chain capacity. The other exercise, planning for the next phase of HIV&AIDS funding, appeared to be recommending strategies for enhancing AIDS M&E capacity, without reference to reinforcing overall MOH HMIU capacity, which is responsible for gathering, analysing and reporting on all HIV&AIDS bio-medical activities in the country. As one MOH stakeholder commented, "GOM develops its plans jointly with our partners, but some of the CPs develop their own plan and then consult us or sometimes only inform us. This means that we end up implementing not only our national plan but those of our partners as well. This adds a heavy strain on our limited resources at all levels".

Further strains on the system are made when development partners limit their programmes to a few select districts, leading to a certain balkanisation of the health sector, as DPs tend to favour stronger districts to the detriment of weaker ones, to ensure that project objectives are achieved. This also has consequences for ensuring that the equity objectives of the POW can be met.

Almost all of Malawi's health development partners are in fact participating in SWAps as MOU signatories in other parts of the region. USAID, ADB, GTZ and JICA are all signatories of the health SWAp MOU in Zambia, and signatories of the education SWAp MOU in Uganda.

The Government of Malawi is holding up its side on many of the operational requirements of the MOU. However, much more improvement is needed both in terms of increasing the GoM's proportion of its own funding to the health sector and in terms of adhering to the provisions on governance of the sector (see section 3.5. below).

3.4. Assess the extent of harmonisation of M&E activities with other frameworks such as MDGs, MGDS, NAC's M&E and MOLG's M&E;

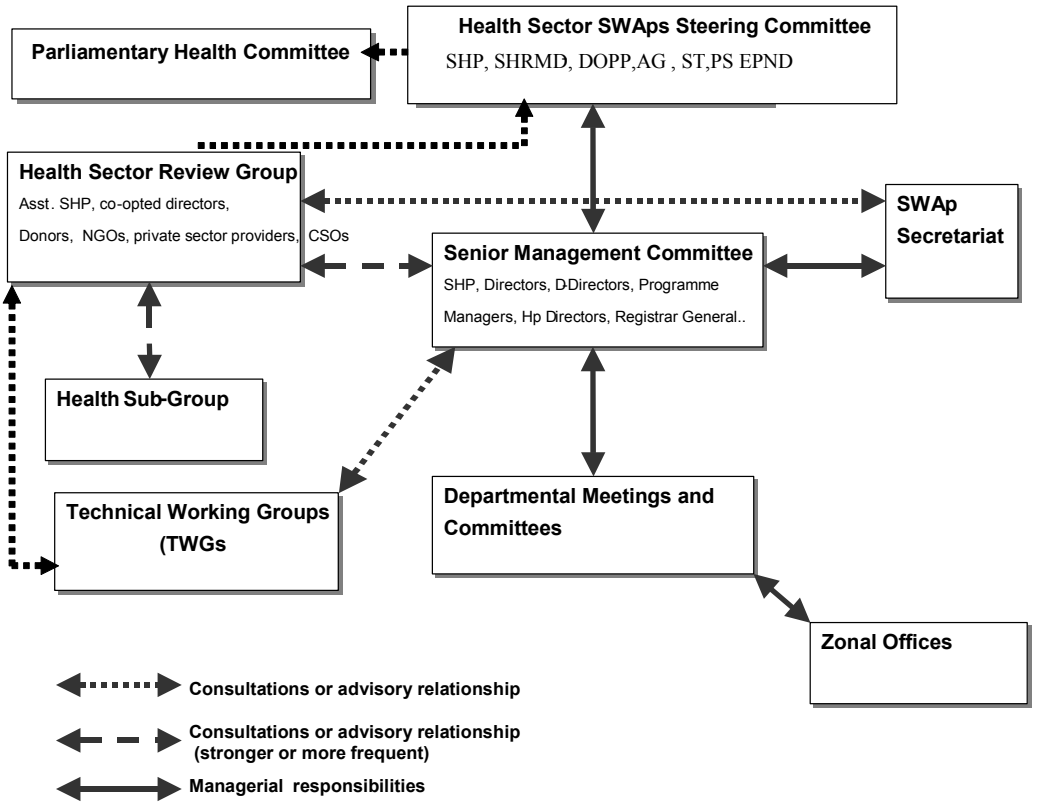
The M&E framework being used to measure progress in the health sector is the Indicator Matrix for the SWAp Programme of Work. The POW indicators are fully aligned with the strategic outcome indicator of the Malawi Growth and Development Strategy, and are in line with Malawi's commitment to contributing to Millennium Development Goal targets for MDGs 4, 5 and 6. The MGDS goes further and underscores the central importance of the POW pillars as key strategies for achieving shared MGDS and Ministry of Health objectives. The National AIDS Commission's M&E framework is currently being revised. The proposed new NAC indicator matrix impact measures are in line with the MOH's impact indicators (Life expectancy at birth and HIV prevalence among 15-24 year olds).

MOH and MOLG have not yet discussed their respective planning, monitoring and evaluation needs at a strategic level. It is evident from district level that there is a mismatch between the requirements of the MOH and of the MOLG. As decentralisation progresses it is possible that further strains will be put on DHOs to try and accommodate the requirements from both ministries.

3.5. Assess the effectiveness of the SWAp Governance structures and review process in promoting harmonisation, coordination and collaboration and reducing levels of effort amongst all stakeholders (e.g. Health Sector Review Group constituencies).

The Memorandum of Understanding Operational Guidelines specifies a comprehensive governance structure (see figure 10.1 below). This governance structure is in line with international best practice on SWAp governance, as it is built around the principles of partnership and transparency, with clear lines of responsibility for decision making.

Figure 10.1 Malawi Health SWAp Governance Structures (from "ANNEXES/ OPERATIONAL GUIDELINES FOR GOVERNMENT AND COLLABORATING PARTNERS"



Meetings within the Ministry Managerial Lines

During interviews with MOH staff it became clear that departmental meetings do not take place regularly or may not take place at all. Zonal offices, which have a quality assurance and support supervision role vis-à-vis district health offices, have no clear link into central level where they can feed in concerns coming up from district level and below. For the most part they may raise their concerns or problems with individual programme managers or departmental heads, or through TWGs. The MOH opted not to convene the Health Sector SWAps Steering Committee as it was deemed inappropriate for Principal Secretaries from other Ministries to have decision making authority over Ministry of Health policy and strategy. The Senior Management Committee is comprised of the Secretary for Health, all Directors & Deputy Directors, Programme managers, Central Hospital Directors, and Registrars of Health Regulatory bodies. The committee liaises with the Health Sector Review Group. Its purpose is to approve and review health sector policy and the Programme of Work. The SMC approves annual work plans and budgets, facilitates communication with health sector stakeholders, reviews evidence and initiates policy innovation within the sector. It is therefore the most important part of the internal MOH governance structure for the POW, in the absence of the HSS Steering Committee. However, as can be seen below the SMC has not been meeting regularly.

The MOH is holding weekly Monday morning meetings, chaired by the Minister. There are no terms of reference for these weekly meetings. Interviews with staff indicated that these meetings tend to cover MOH operational issues, which would mean that there is therefore no regular or routine forum within the Ministry where the SMC constituents (e.g. senior department and programme managers plus zonal supervisors) can meet with the PS to focus discussion on strategy and policy.

Technical and Partnership Advisory Meetings

The SWAp Governance structure pictured in Figure 10.1 gives a clear indication of where Ministry of Health staff and health sector stakeholders external to MOH may discuss and debate how the national health strategy is being implemented. Technical Working Groups (TWGs) and sub-groups include Ministry of Health staff, representatives of development partners and representatives of NGOs working in health. Six TWGs have been meeting more or less regularly since 2005: Drugs and Medical Supplies, Financial Management and Procurement, Human Resources, Infrastructure and Equipment, Monitoring and Evaluation and Public-Private Partnerships. A seventh TWG was created in 2007, the Essential Health Programme TWG, to provide a single forum to discuss wider EHP issues. The EHP TWG is meant to be an umbrella TWG within which the many technical sub-groups (e.g. for EPI, Malaria, HIV&AIDS, Sexual and Reproductive Health) may operate and to which they may report.

The Health Sector Review Group (HSRG) is comprised of Secretary for Health, Co-opted Directors, Donors, NGOs, Private sector providers, local government representation and regulatory bodies. The HSRG has both advisory and oversight functions. In its TORs the functions of the group include reviewing progress on the Programme of Work, and in particular progress on achieving annual targets, as well as reviewing audit reports and monitoring progress on milestones set during mid-year and annual review meetings. The Secretary for Health co-chairs this group with an elected member from within the HSRG constituency. The HSRG is therefore the senior most partnership forum and a key part of the governance structure.

The Health Donor Group has been meeting since before the current POW and the SWAp was put in place. The HDG includes all development partners, whether they are pool or discrete donors, and meets on a monthly basis. Interviews with members of this group indicated that it was a very useful forum that has enhanced coordination and discussion amongst development partners contributing to the health sector. It is not only a forum within which DPs can discuss their own programmes, but is also the forum where the MOH and DPs can exchange concerns and problems related to implementation of the POW, via the MOH representative attending the meeting. However, it also appears that members of the HDG may not be challenging each other about programmes or interventions that may be unaligned with the POW, or which could impact negatively on the health system more generally (e.g. multiplicity of TAs, multiplicity of review processes or introduction of new interventions not in the EHP).

Purpose and Perceptions of Governance Committees

All TWGs, the HSRG and the SMC all have fairly clear TORs. The TWGs are advisory in nature, and exist to allow review of problems and progress related to specific POW pillars or to health technical programmes. The technical sub-groups have a particular role to play in terms of discussing new evidence arising from national and international research, or new

programmes being proposed by discrete donors who may wish to expand the range of interventions under the EHP. Similarly the POW pillar related TWGs should be discussing strategies for improving progress on pillar indicators and advising on where changes or additions might be required. The HSRG and SMC should be considering what impact proposals for programme changes or new interventions may have on the health sector as a whole and deciding whether or not to accept these changes or how best to integrate change into the system.

Interviews with different stakeholders indicated that there are a range of perceptions as to why these different bodies exist and how they operate. While almost all people interviewed appreciated their importance, some MOH stakeholders indicated that they feel the TWGs occasionally overstep their mandate and operate more as decision making bodies rather than as advisory. Other MOH and development partner stakeholders indicated that they felt that TWGs were not being used effectively, and that there is no clear mechanism for feeding the deliberations and advice from TWGs into Ministry or partnership decision making processes. Stakeholders also indicated that it is difficult to have the right people sitting at the TWG table, as organisations participating may not send a representative from a high enough level, or do not attend regularly. A few members of TWGs find that meeting schedules can change frequently, with TWG meetings postponed to another date, and then notice of new meetings dates provided at only 24 to 48 hour notice. The means of communicating TWG meetings, via email, also does not work for many organisations that have limited to poor email access. Some of this problem arises from there being no calendar of meetings that connects TWG meetings to meetings of the HSRG or SMC. Also, high turnover of senior managers within the MOH has inhibited a good understanding of how different committees can and should be used, and has weakened general understanding of what the sectoral approach is trying to achieve. High staff turnover has also had a deleterious affect on the development of good relationships between the MOH and its partners, as good partnership working requires numerous encounters between the same individuals and time to resolve conflicts.

Frequency of MOH and Partnership Meetings

Table 1 provides an overview of the frequency of TWG, HSRG and SMC meetings. As can be seen from this table, collated from minutes made available to the MTR team, TWG meetings of many of the key TWGs have never been very regular or have tapered off in the last year. Senior Management Committee has met only four times since December 2004, with the last meeting taking place in October 2006. MOH staff and development partners all commented during interviews that there is a great deal of confusion as to where debates on shifting strategic direction take place, and how different stakeholders can or should contribute to these debates, since meetings of SMC are not being held on a routine basis, and the last year saw a time lag in HSRG meetings as well (every four months rather than quarterly).

Though not included in the governance structure diagram above, a further governance mechanism in the sector is the bi-annual review process. Twice yearly the MOH convenes a four day joint review meeting to which a wide variety of internal and external stakeholders is invited. The review meetings are highly appreciated by all stakeholders interviewed. District level officers indicated it was the only opportunity that they had to interact with and hear from decision makers at central level in a direct fashion. Non-governmental and private service providers and health service users appreciate the opportunity to assess the current state of implementation of the POW and to input their views on achievements and on problems they have experienced.
Mid-year and annual progress reports are produced from these review meetings. They have often been delayed, primarily due to problems with pulling in all the data from districts required

to complete the SWAp M&E forms. The progress reports also indicate progress against milestones agreed in the previous joint review meeting, and sets out the milestones to be achieved in the next period. The formatting of these milestones has not been consistent across the different progress reports, so it can be difficult to analyse trends in meeting these milestones across reporting periods. Also, there appears to be no follow up on milestones 'not yet achieved' from one period to the next unless one of the review meeting working group decides to carry forward a particular milestone.

Table 1: TWG, HSRG and SMC meetings since 2004.

	DMS	EHP	FMP	HR	I&E	M&E	PPP	HSRG	SMC	
2004/05										
Dec									15/12	
Jan										
Feb			9/02							
Mar	18/03		2/03	1/03 11/03		9/03			4/03	
Apr				15/04		14/04				
May						26/05				
Jun	09/06					24/06				
2005/06										
Jul	05/07 26/07					29/07			21/07	
Aug	26/08							12/08		
Sept	02/09(e) 13/09 27/09					6/09				
Oct				4/10		7/10(e)		13/10		
Nov	16/11			15/11		1/11 + 29/11		10/11		
Dec			15/12							
Jan			26/01					12/01		
Feb				14/02		10/02				
Mar	20/03				17/03 30/03	31/03(e)				
Apr	12/04(e)				27/04			13/04		
May					25/05	05/05	18/05			
Jun	06/06			7/06	13/06		15/06	29/06		
2006/07										
Jul	25/07(e)			18/07	18/07	21/07	13/07			
Aug	30/08						17/08	24/08(e)		
Sept				14/09		15/09				
Oct								31/10	19- 20/10	
Nov						30/11				
Dec			6/12				19/12			
Jan										
Feb	22/02(e)		01/02	08/02		01/02				
Mar	08/03							06/03		
Apr	11/04					25/04				
May		?/05		17/05(e)						
Jun										
2007/08										
Jul								4/07		
Aug						02/08				

n.b. These dates are taken from minutes of meetings available to the SWAp Secretariat. As some TWGs are not providing minutes there are likely to be some gaps. However, this in itself identifies a

problem with the governance system if TWG meeting minutes are not readily available to the governance constituencies.

4. Analysis and Discussion

Pavignani (2001) has outlined the conditions necessary for developing and maintaining a successful sector programme.

Table 2: Conditions for successful development of a SWAp

Government	Development Partners
• Political and managerial stability • Commitment to long-term reform • Willingness to participate in, and understanding of, jointly owned management schemes • Preparedness to admit managerial weaknesses and to work to overcome them • Preparedness to discourage, uncover or curb misbehaviour	• Long term commitment to and understanding of the sector functioning • Preparedness to wait for a long time for positive results to emerge • Preparedness to commit substantial technical capacity and energies to the process of enabling the government to take full responsibility for the sector • Preparedness to withstand considerable controversy and unavoidable crises • Good coordination/agreement with other donors, to avoid conflicting or disruptive initiatives
Both: willingness to confront and overcome difficulties and conflicts through frank dialogue, negotiations and partnership	

These lessons learned have been reflected in other papers analysing the experience of SWAps to date (Foster 2000, HLSP 2005, HLSP 2006). These points provide a useful framework within which to analyse the strengths and weaknesses of harmonisation, alignment and governance of the health SWAp in Malawi to date.

4.1. Strengths

Documents and interviews indicate a clear commitment by all health stakeholders to the principles of the Paris Declaration on Aid Effectiveness on harmonisation, alignment and transparency. Government stakeholders in the Ministry of Health, Ministry of Finance and Ministry of Local Government have all expressed clear political commitment to sector approaches, decentralisation processes and good budget management. These, combined with Government of Malawi commitment to pro-poor growth and development, as expressed in the Malawi Growth and Development Strategy: 2006 – 2011, demonstrate that there are efforts to maintain stability and long term reform in the country.

Within the health sector, pre-conditions for a SWAp, as defined by the Foster (2000) are in place in terms of the existence of a single, national health strategy (the Programme of Work) that all actors can 'buy' into. Also, some key development partners are channelling their funding through government systems, aligning their own procedures with government disbursement, accounting, reporting, auditing and procurement systems.

Furthermore, Malawi is one of only a few countries where a Memorandum of Understanding between the Government and Development Partners exists, outlining the principles and operational guidelines of their relationship with regards to support for the health sector.

The governance structure, as outlined in the MOU operational annexes, is in line with best practice as experienced in other sectoral programmes that rely heavily on partnership working. For example, Technical Working Groups, the Health Sector Review Group and the Senior Management Committee are all elements of the health SWAp in Uganda and in Zambia (though they have slightly different names and make-up). In all cases, the HSRG and SMC equivalents are convened and chaired by the PS for Health. Unlike in Malawi, the HSRG equivalents meet monthly in both Uganda and in Zambia, whereas the HSRG in Malawi is scheduled to meet quarterly.

Finally, the Malawi is well in line with best practice as regards maintaining the mid-year and annual review processes. These have been important mechanisms in all countries that have opted for SWAps, allowing a wide cross-section of stakeholders, from MOH decision makers, to public and private service providers and health service users to all review the progress of the health sector strategy.

4.2. Challenges

While structures, systems and procedures are in place to ensure strong coordination, and good harmonisation, alignment and governance, the findings from this MTR indicate that they are not necessarily being well implemented or adhered to. As such, there are still major challenges that impact on how well the health SWAp is operating, which in turn is having a significant impact on implementing the Programme of Work, and on achieving full access to the Essential Health Package across Malawi. These challenges are grouped below:

Improving coordination from within the Ministry of Health

There is also a worrying view expressed by some senior MOH staff that while the POW remains the national health strategy, should any development partner offer to provide services outside the framework of the POW and EHP, the Ministry is unable to say 'no', and must accept what is on offer. Such a viewpoint would indicate that MOH staff may not be willing to prioritise interventions and not hold development partners to account when they stray too far away from agreed strategies and work plans. Weak coordination may arise partly from misunderstanding the nature and purpose of the SWAp. As noted in Section 3, findings indicate that the high turnover of staff within the Ministry of Health has had a negative impact on overall understanding of the health SWAp and on the development of good working relationships between the MOH and development partners. This has been exacerbated by the reduction in frequency of TWG and HSRG meetings. There is a danger that if these views persist, and key committees such as the SMC continue not to meet very regularly, then the fabric of alignment, partnership, transparency and governance crucial to the maintenance of a sector wide approach will disintegrate.

Increasing mutual accountability between development partners

Development partners admit amongst themselves that it is difficult for them to challenge each other and/or to hold each other to account for agreements signed up to through the MOU. Some MOU signatories continue to carry out reviews or assessments in parallel to MOH initiated assessments, and outside the normal review processes. Non-signatories to the MOU continue to develop projects and either do not consult with other DPs on their plans until they are already approved bilaterally, or, when they do share their plans, are not being challenged by fellow DPs on potential negative effects. Table 1 indicates that good coordination between donors is a required to avoid duplication and potentially disruptive programming. The Health

Donor Group is a mature committee and members could take more responsibility for providing and seeking information to/from each other, and constructively confront each other where they feel plans, initiatives and reviews are not in line with the agreed POW and priorities. This is especially important as decisions taken bilaterally by some of the larger funders of the health sector can and do have a significant effect on how other funders' monies are used.

The Global Fund's LFA communication protocols represent a particular challenge for donor coordination and mutual accountability. The fact that these protocols suggest that the LFA does not have to inform the principal recipient, or indeed anyone else, of the results of programme assessments they may undertake, or ask third parties to undertake, seems directly at odds with the spirit and the letter of the MOU and Paris Declaration on Aid Effectiveness relating to transparency and openness. In the world of research this practice would also certainly fail the test of any competent research ethics committee with regards to principles of autonomy and justice of those being assessed.

The importance of donor coordination was also brought home during the MTR team's discussion with the MOH PS and directors. There was some misunderstanding of the HDG Meeting. Donors need to have a forum where they thrash out issues so that they can present a common position to Government and not individual negotiations with MOH (this is a core part of harmonization of donor practices0. The Director of the secretariat is now present at HDG meetings to enable greater transparency. To what extend this hinders frank discussion we did not explore.

Increasing tolerance for partnership and joint managerial ownership

One of the other key areas identified in Table 2 above is that the sector ministry needs to consider how it works within a relationship that requires joint ownership of strategy and interventions. While all players agree that government must be able to take the lead in terms of determining health policy and the national strategy, it is also true that government is heavily aid dependent, with at least 52% of the on-budget health budget funded by development aid. As such, the requirements of development partners need to be understood and agreements reached about what is essential to ensure continued funding for the health sector. It is also true to say that the Ministry of Finance could play a much more significant role in the governance structure as the Government of Malawi invests so much of its own resources in the health sector. Experiences of sector support in other countries (e.g. Pakistan and Uganda) has demonstrated that greater participation by high level MOF staff (Director of Budget) has helped to increase mutual understanding between the MOF and MOH, leading to streamlining of processes and an increased slice of the national cake to the health sector. As so many of the original actors involved in negotiating the setting up of the health SWAp in 2003 have now moved on, it is understandable that those new to the sector are struggling to make sense of how the partnership between the MOH, MOF and development partners should work. At the same time, development partners are quite rightly anxious about how well their investment in the health sector is doing three years into the current programme. It is critical that these concerns and tensions are brought out in the open, to be debated and resolved.

5. Conclusions and Recommendations

5.1. Conclusions

There is no doubt from interviews with MOH staff and with development partners that there is a sense of crisis and uncertainty about the future of the SWAp. This being the case, there is a need for urgent attention to resolve the above challenges and to put the SWAp partnership and programme back on track. The problems can be resolved, and they can be resolved through the mechanisms already in place. This will require the MOH committing itself to ensuring that the agreed to governance committees and procedures are adhered to, and development partners holding each other and government to their commitments as detailed in the MOU and in international agreements.

Table 2: Recommendations on Financing Modalities, Harmonisation, Alignment and Governance

No.	Recommendation	Suggested key responsibility for action	Suggested processes/action
11.1	Improve partnership and joint ownership through reconstitute and revitalise the key TWGs, HSRG and SMC	Secretary for Health	• Call for a joint meeting of the members of the Senior Management Committee and of the Health Donor Group, as defined in the current TORs. The purpose of this meeting is to identify why committees are not meeting and to agree on a calendar of meetings for the next year • The HSRG and SMC should agree to meet once a month for the next 6 months in order to cover all outstanding business and renew working relationships; • Include the Secretary of the Treasury as a member of the HSRG • Consider the creation of a Ministry Executive Committee that includes the Minister in its membership. The MEC would be responsible for overall policy direction and approving policy proposals. The SMC would concentrate its efforts on policy planning and implementation, overseeing coordination of the implementation of POW pillars and technical programmes. • Designate chairs and deputy chairs of each TWG, whose responsibility it is to ensure the TWG is convened regularly, and TWG reports are fed regularly to the HSRG and SMC.
		Chair, Health Donor Group	• At its next meeting, the HDG chair should facilitate agreement on representatives of at least two, and at most three, DP organisations to take responsibility for attending TWGs, according to their comparative advantage and expertise. • These representatives should then be tasked with feeding back reports from TWGs to the HDG through the listserve and through monthly HDG meetings
11.2	Improve the effectiveness of TWGs	PS and TWG chairs	• Determine the minimum organisational membership and technical qualification required to sit on each TWG • Work with TWG constituencies to communicate what is required from each organisation, included the level of representation required to make sure meetings are meaningful • Ensure that each TWG has a chair and deputy chair to reduce the risk of meetings having to be postponed or cancelled.
		TWG chairs, deputy chairs and secretaries	• Devise an annual schedule of each TWGs meetings, which is then circulated to the membership at the beginning of each year. • Ensure minutes of meetings are sent to TWG members and the SWAp secretariat within two weeks of the meeting taking place, and including the date, time and place of the next meeting

			• Any changes to scheduled meetings, and calling of extraordinary meetings, should be given with at least one week notice, and done by telephone and email, to reduce problems with unreliable IT
11.3	Improve coordination and mutual accountability within the Health Donor Group	Chair and members of the HDG	• Members of the HDG to ensure they are making full use of the listserve and monthly meetings to share information about programme planning and programme assessments they are undertaking. • Add a regular agenda item to HDG meetings that gives time for debate on donor initiatives that have not been discussed, or which are creating concerns;
		Global Fund	• The Global Fund should review and revise its 'Communication Protocols for Local Fund Agents' to allow for open planning for, and sharing the results of, PR assessments with both the Principal Recipient and other development partners.