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### Annex A. Proposed Staffing Targets for 11 Cadres, MOH and CHAM

	2004	2005	2006	2007	2008	2009	2010
<b>Physicians</b>	122	142	163	184	205	205	205
<b>Nurses</b>	4147	4419	4691	4963	5234	5505	5776
<b>Clinical Officers</b>	484	576	668	763	880	967	1054
<b>Medical Assistants</b>	593	685	777	869	981	1053	1145
<b>Lab Techs</b>	90	134	178	222	272	321	369
<b>Pharm Techs</b>	105	116	127	142	165	187	209
<b>Radiology Techs</b>	56	72	89	109	135	160	185
<b>Dental Techs</b>	109	144	180	219	280	301	341
<b>Physiotherapists</b>	17	34	50	69	89	108	127
<b>EHOs</b>	302	403	506	614	768	921	1074
<b>Medical Engineers</b>	22	27	34	41	48	53	58
<b>Total MoH Employees</b>	4140	4722	5308	5911	6575	7211	7845
<b>Total CHAM Employees</b>	1908	2030	2155	2284	2422	2560	2698
<b>Grand Total</b>	6047	6752	7463	8195	8997	9771	10543
<b>Increase from Previous Year</b>	0	705	711	732	802	775	772

*Source: Martin-Staple, Anne. Six-Year Human Resource Relief Programme: Revisions and Year-One Implementation Plan. Short-term consultancy report, December 2004.*

### Annex B. Proposed Targets for Training Outputs by Cadre

	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10
<b>Physicians</b>						
Entering Students	60	60	60	100	100	100
Graduates	20	20	20	20	31	64
<b>Nurses</b>						
Entering Students	456	550	670	720	720	720
Graduates	427	438	513	579	620	670
<b>Clinical Officers</b>						
Entering Students	105	125	125	125	125	125
Graduates	106	111	125	125	125	125
<b>Medical Assistants</b>						
Entering Students	150	200	200	200	200	200
Graduates	100	150	200	200	200	200
<b>Lab Technicians</b>						
Entering Students	61	100	120	120	120	120
Graduates	50	61	100	120	120	120
<b>Pharmacy Technicians</b>						
Entering Students	20	30	40	40	40	40
Graduates	15	20	30	40	40	40
<b>Radiography Technicians</b>						
Entering Students	30	30	45	45	45	45
Graduates	30	30	30	45	45	45
<b>Dental Therapists</b>						
Entering Students	10	20	20	20	20	20
Graduates	9	22	10	20	20	20
<b>Environmental Health Officers</b>						
Entering Students	150	200	250	250	250	250
Graduates	85	150	200	250	250	250
<b>Total</b>						
Entering Students	1,042	1,315	1,530	1,620	1,620	1,620
Graduates	842	1,002	1,228	1,399	1,451	1,534

*Source: Martin-Staple, Anne. Proposed 6-Year Human Resource Relief Programme for the Malawi Health Sector, Part II: Training and Tutor Incentive. June 2004.*

## Annex C. Evaluation Framework: Proposed Research Questions

This document presents the evaluation framework which will guide the evaluation of the Emergency Human Resources Programme (EHRP) by Management Sciences for Health and Management Solutions Consulting, Ltd.

### Purpose of the Evaluation Framework

The purpose of this evaluation framework is to provide a methodology to investigate the extent to which each element of the EHRP has been implemented, the costs of each and the extent to which it has had an impact on the delivery of health services. It will also analyse the effectiveness, efficiency and sustainability of the EHRP and make recommendations for strengthening and sustaining an HRH plan in the future.

### Evaluation Questions from the Terms of Reference (TOR) provided by DFID

The Terms of Reference for this evaluation present four objectives shaped as evaluation questions. These are summarised below:

1. Is the EHRP being delivered as planned: which individual elements have and have not been implemented?
2. What has been the impact of EHRP to date, both proximal (such as shifts in numbers or distribution of health workers) as well as distal (such as improvements in service delivery)? What have been the intended and unintended outcomes?
3. What are the costs of implementing the EHRP, both in terms of direct costs of implementation and indirect costs (for example, external effects on labour markets)?
4. Is the EHRP an efficient, effective and sustainable solution to the problem it seeks to address? How could the programme be strengthened? What policy lessons emerge from the evaluation for Malawi and other countries?

#### *Element 1: Improving Incentives*

- |   |
|---|
| 1. Has the EHRP met its goal of increasing actual staff numbers in the 11 priority cadres?  |
| 2. To what extent is the increase of staff due to the salary top-ups versus 3-year local contracts (re-engagement of retired health workers), hardship incentives, or other interventions?  |
| 3. To what extent is the increase of staff due to changes in the UK migration policy, and/or other improvements, such as working conditions, improved availability of medical supplies and equipment, the economic climate, etc.? |
| 3. What is the net increase in staff given the actual staff increases measured against on-going attrition?  |
| 4. How has the 52% salary top up improved attraction and retention of health workers to the public health sector?   |
| 5. How has the hardship incentive package improved the attraction and retention of health workers in the hard to reach areas?   |

6. Has the net increase of staff resulted in increased service utilisation? If not, why not?
7. What is the cost, cost effectiveness and sustainability of this element of the EHRP?
<b><i>Element 2: Expand Training Capacity</i></b>
1. How many students were enrolled and how many graduated? What are the expected changes in enrolment and graduation rates? (Percentage of graduating students who meet licensing guidelines?)
2. What is the net increase of teaching faculty in pre-service training institutions and is it appropriately distributed across the 11 targeted cadres?
3. To what extent has training infrastructure expanded?
4. To what extent has EHRP adopted innovative and alternative methods to substantially increase outputs without the need for major expansion?
5. To what extent has in-service training and continuing professional development contributed to staff retention?
6. To what extent has programme expansion been linked with improved health staff levels of public health facilities?
7. What is the percentage of students who are committed joining public health service to complete the bonded period? What percentage is committed to a long term career in the public health sector in Malawi following their bonding period?
8. What is the cost, cost effectiveness and sustainability of this element of the EHRP?
<b><i>Element 3: Deploy International Volunteers</i></b>
1. To what extent have international volunteers filled the critical gaps in staffing and where were they deployed?
2. To what extent did international volunteers complete their full 2-year contracts and/or renew their terms?
3. How is the role of the international volunteers defined? (By themselves? By the MOH?) and how is their performance measured?
4. Is there a replacement strategy for the international volunteers?
5. What is the cost, cost effectiveness and sustainability of this element of the EHRP?
<b><i>Element 4: Provide Technical Assistance to Increase Capacity</i></b>
1. What was the role and extent of HR technical assistance provided to the MOH?
2. To what extent has the efficiency and effectiveness of the HRM system been improved, e.g. planning, recruitment, deployment?
3. Do the roles of the Ministry of Finance, Department of HRM&D, Health Service Commission, HR Department within the MOH and the Civil Service Commission, promote good HR management practice, (i.e., planning, personnel policy, recruitment, hiring, salary, benefits)?
4. How many units have managers with significant HR responsibility? What are the competency gaps?
5. What is the cost, cost effectiveness and sustainability of this element of the EHRP?
<b><i>Element 5: Strengthen M&amp;E Capacity</i></b>
1. To what extent has the HRIS system been effective in tracking HR data?

2. To what extent has the HRIS system been integrated into the HMIS system?
3. Did the health sector staff receive training in the HRIS and HMIS systems?
4. Did the health sector staff have training in the basic principles of monitoring and evaluation of human resources?
5. What new tools have been implemented to improve the tracking of HR data?
6. What is the current method for gathering HR data? How are staff returns managed?
7. What is the cost, cost effectiveness and sustainability of this element of the EHRP?

### *Cross-Cutting Topics*

Based on findings from the above research, the evaluation will also analyse several cross-cutting issues in regard to the overall performance of the EHRP; its impact on policy; its sustainability and financial implications. The following table is a summary of the research questions to be addressed.

<b>Overall Performance</b>	<b>Policy</b>	<b>Sustainability</b>	<b>Financial Implications</b>	<b>Recommendations</b>
With the understanding that the EHRP is intended to be comprehensive and coherent, how did it perform, overall, in meeting the expected goals of increasing staff and training capacity?	Based on a cost analysis of the salary top up strategy and its impact on health services, are there other models that might be considered by the government of Malawi? (e.g., performance based financing schemes) Or adjustments to the current?	What assumptions were used in designing the EHRP? Did these bear fruit? What was the unique context under which the EHRP unfolded? Was there an exit strategy?	Impact on labour market?	What components of the EHRP should be carried forward?
Were there elements missing?	To what extent does the fragmentation of the HRM system have a negative impact? (e.g., central authority, role of EHRP?)	To what extent did the government support the EHRP?	Percent of expenditure on health has this changed due to EHRP?	What adjustments or alternative strategies might be considered for long term HR sustainability?

Overall Performance	Policy	Sustainability	Financial Implications	Recommendations
Were there elements that have not been implemented or should have received more priority that have made a difference in the results?	To what extent were policy instruments and plans designed, but not implemented? *Deployment policy *HRH strategic plan	What elements of the EHRP constitute effective and efficient practices? (Best practices)	Overall cost efficiency?	Which components of the HRH Action Framework have been thoroughly addressed by the EHRP programme and which need more attention?
To what extent did the HR management & leadership capacity of the Mohr and CHAM help or hinder implementation? (District/Central)		What is the overall sustainability of the EHRP?	What is the contingent liability of this programme?	What policy lessons have emerged from the evaluation for other countries seeking to implement comprehensive HR strategies?
To what extent did the role of the executive leadership of the MoH contribute to the results of the EHRP to date?		Is the EHRP ready to become a routine HR system? (i.e., no longer an emergency intervention)		
What role did EHRP play in scale up of other health programmes? (PMTCT, TB, Malaria, ART)				
What role did the SWAp Governance Structure play in contributing to the results of this programme?				

### Annex D. HR Task Force Members

#	Name	Organization	Designation	E-mail Address
1	Dr Ann Phoya	Ministry of Health	Chairperson	ann.phoya@health.gov.mw
2	Benson Phiri	Nurses Association/NONM	Member	benesphiri@yahoo.co.uk
3	Dr A. Malata	Kamuzu College of Nursing	Member	amalata@kcn.unima.mw
4	Juliana Ilse	GTZ	Member	juliana.ilse@gtz.de
5	Nabila Saddiq Tayub	MSF-B	Member	Msfocb-blantyre-hrh@brussels.msf.org
6	Desiree Mhango	CHAM	Member	dmhango@cham.org.mw
7	Hudson Nkunika	Ministry of Health	Member	hudsonnkunika@yahoo.com

### Annex E. List of Facilities Visited for Focus Group Discussions

Note: The term ‘focus group’ is being used to capture traditional focus groups, but also includes consultative meetings with individuals and small groups from the five zones, selected districts, and hospitals.

Site	Target	Date
Karonga District Hospital	Management and Staff	7 <sup>th</sup> December, 2009
Mhujuru Rural Hospital, Rumphu	Staff	8 <sup>th</sup> December, 2009
Mzuzu Central Hospital, Mzuzu	Management, staff and Volunteer doctors	9 <sup>th</sup> December, 2009
Mzuzu University	Management, Faculty and	9 <sup>th</sup> December, 2009
Ekwendeni Mission Hospital	Management	10 <sup>th</sup> December, 2009
Ekwendeni College of Health Sciences	Faculty and Students	10 <sup>th</sup> December, 2009
St John of God	Management	10 <sup>th</sup> December, 2009
St John of God College of Health Sciences	Faculty and Students	10 <sup>th</sup> December, 2009
MoH Northern Zonal Office, Mzuzu	Management	14 <sup>th</sup> December, 2009
Chitheka Health Center	Staff	14 <sup>th</sup> December, 2009
Mzimba District Hospital	Management and Staff	14 <sup>th</sup> December, 2009
Jenda Health Centre	Staff	15 <sup>th</sup> December, 2009
Nkhamenya Mission Hospital	Management and staff	16 <sup>th</sup> December, 2009
Dowa District Health Office	Management and Staff	17 <sup>th</sup> December, 2009
Salima District Health Office	Management and staff	17 <sup>th</sup> December, 2009
Chipoka Health	Staff	17 <sup>th</sup> December, 2009
Kawale Health Center	Management and Staff	5 <sup>th</sup> January, 2010
Santhe Health Centre	Staff	5 <sup>th</sup> January, 2010
Nathenje Health Centre	Staff	5 <sup>th</sup> January, 2010
Kamuzu Central Hospital	Management and Staff	6 <sup>th</sup> January, 2010
Likuni Hospital	Management	6 <sup>th</sup> January, 2010
Mitundu Community Hospital	Management and Staff	7 <sup>th</sup> January, 2010
Kamuzu College of Nursing	Management and faculty	7 <sup>th</sup> January, 2010
Mchinji DHO	Management and staff	7 <sup>th</sup> January, 2010
Queen Elizabeth Central Hospital	Management and staff	11 <sup>th</sup> January, 2010
Malamulo Hospital	Management and staff	12 <sup>th</sup> January, 2010

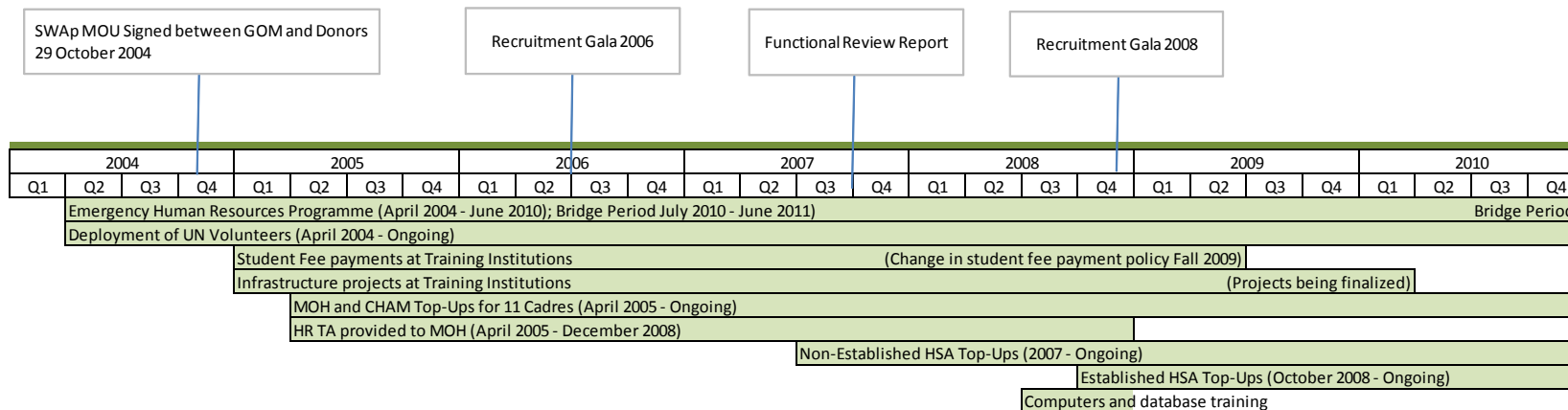
Malamulo College of Health Sciences	Faculty and students	12 <sup>th</sup> January, 2010
Thyolo District Hospital	Management and staff	12 <sup>th</sup> January, 2010
Bvumbwe Health Center	Staff	13 <sup>th</sup> January, 2010
St Joseph College of Health Sciences (Nguludi)	Management faculty and students	14 <sup>th</sup> January, 2010
Phalombe DHO	Management and staff	8 <sup>th</sup> February, 2010
Holy Family Mission Hospital	Management, faculty and students	8 <sup>th</sup> February, 2010
Malawi Colledge of Health Sciences, Zomba Compus	Management, faculty and students	9 <sup>th</sup> February, 2010
Zomba Central Hospital	Management and staff	9 <sup>th</sup> February, 2010
Zomba DHO	Management and staff	9 <sup>th</sup> February, 2010
Zomba Mental Hospital	Management and staff	9 <sup>th</sup> February, 2010
St Martin's Mission Hospital, Malindi	Management and staff	10 <sup>th</sup> February, 2010
Monkey Bay Community Hospital	Management and staff	
Nankumba Health Center	Staff	10 <sup>th</sup> February, 2010
Mangochi DHO	Management and staff	11 <sup>th</sup> February, 2010
Queen Elizabeth Central Hospital	Management and staff	11 <sup>th</sup> January, 2010
Malamulo Hospital	Management and staff	12 <sup>th</sup> January, 2010
Malamulo College of Health Sciences	Faculty and students	12 <sup>th</sup> January, 2010
Thyolo District Hospital	Management and staff	12 <sup>th</sup> January, 2010
Bvumbwe Health Center	Staff	13 <sup>th</sup> January, 2010
St Joseph College of Health Sciences (Nguludi)	Management faculty and students	14 <sup>th</sup> January, 2010
Malawi Polytechnic	Management and Faculty	25 <sup>th</sup> February, 2010
College of Medicine	Management Faculty and Students	25 <sup>th</sup> February, 2010

### Annex F. List of Key Informants

Name	Title	Organization	Date
Dr Maureen Chirwa	Director of Health Management Unit	College of Medicine	13 <sup>th</sup> April, 2010
Dr Ester Ratsima	Medical Coordinator	Dignitus, Zomba	13 <sup>th</sup> April, 2010
Mr Chancy Simwaka	Former Acting Director of Budgets	Ministry of Finance	15 <sup>th</sup> April, 2010
Dr Chithope- Mwale	Director of Clinical Services	Ministry of Health	15 <sup>th</sup> April, 2010
Dr Ann Phoya	Head of SWAp Secretariat		16 <sup>th</sup> April, 2010
Dr Dorothy Ng'oma	President	National Organization for Nurses and Midwives (NOAM)	27 <sup>th</sup> April, 2010
Dr Edward Dzanjalimodzi	Commissioner, Health Service Commission	Health Service Commission	4 <sup>th</sup> May, 2010
Mr Dickson Chunga	Director of Human Resource Management and Development	DHRM&D (OPC)	27 <sup>th</sup> April, 2010
Mr Chris Kang'ombe	PS	MoH Headquarters	17 <sup>th</sup> May, 2010
Dr Address Malata	Principal	University of Malawi, Kamuzu College of Nursing	12 <sup>th</sup> April, 2010
Mrs F.C. Bwanali	District Health Officer, Salima	Ministry of Health	12 <sup>th</sup> April, 2010

## Annex G. EHRP Implementation Timeline

Timeline of major events and activities during EHRP Implementation, 2004 – 2009.



### Annex H. Job Titles Mapped to the 11 Priority Cadres of Health workers

CADRE	GRADE	TITLE	CADRE (EHRP)
Medical Specialist	P2	Chief Specialist	Physician
	P4	Senior Ophthalmologist	Physician
	P5	Anaesthetist	Physician
	P5	Medical Specialist	Physician
	P5	OB/GYN	Physician
	P5	Pediatrician Surgeon	Physician
	P5	Urologist	Physician
	P7	Pathologist	Physician
Medical Officer	P4	Medical Officer	Physician
	P4	Senior Physician	Physician
	P5	Chief Medical Officer	Physician
	P5	Medical Officer	Physician
	P5	Physician	Physician
	P7	OB/GYN Registrar	Physician
	P7	Principal Medical Officer	Physician
	P7	Registrar	Physician
	P8	Doctor	Physician
	P8	Medical Doctor	Physician
	P8	Medical Officer	Physician
	P8	Senior Medical Officer	Physician
	PO	Medical Doctor	Physician
	PO	Medical Officer	Physician
TO	Assistant District Medical Officer	Physician	
Clinical Officer	CEO	Chief Clinical Officer	Clinical Officer
	CTO	Chief Clinical Officer	Clinical Officer
	CTO	Chief Orthopedic Clinical Officer	Clinical Officer
	CTO	Dermatology Clinical Officer	Clinical Officer
	P7	Clinical Superintendent	Clinical Officer
	P7	Principal Clinical Officer	Clinical Officer
	P7	Principal Clinical Superintendent	Clinical Officer
	P7	Principal Medical Superintendent	Clinical Officer
	P7	Principal Superintendent Officer	Clinical Officer
	P8	Clinical Superintendent	Clinical Officer
	P8	Dermatology Clinical Officer	Clinical Officer
	P8	Senior Dermatology Officer	Clinical Officer
	PO	Dermatology Clinical Officer	Clinical Officer
	PO/CTO	Chief Anaesthetic Clinical Officer	Clinical Officer
PO/CTO	Chief Clinical Officer	Clinical Officer	
PO/CTO	Chief Orthopedic Clinical Officer	Clinical Officer	

	STO	Orthopedic Clinical Officer	Clinical Officer
	STO	Senior Anaesthesiology Clinical Officer	Clinical Officer
	STO	Senior Assistant Dermatology Officer	Clinical Officer
	STO	Senior Assistant Health Officer	Clinical Officer
	STO	Senior Clinical Officer	Clinical Officer
	STO	Senior Ophthalmic Clinical Officer	Clinical Officer
	STO	Senior Orthopedic Clinical Officer	Clinical Officer
	TO	Anaesthesiology Clinical Officer	Clinical Officer
	TO	Assistant Dermatology Clinical Officer	Clinical Officer
	TO	Clinical Officer	Clinical Officer
	TO	Ophthalmic Clinical Officer	Clinical Officer
	TO	Orthopedic Clinical Officer	Clinical Officer
Medical Assistant	STA	Dermatology Assistant	Medical Assistant
	STA	Leprosy Assistant	Medical Assistant
	STA	Medical Assistant	Medical Assistant
	STA	Senior Anaesthesiology Officer	Medical Assistant
	STA	Senior Leprosy Assistant	Medical Assistant
	STA	Senior Medical Assistant	Medical Assistant
	STA	Senior Ophthalmic Medical Assistant	Medical Assistant
	TA	Anaesthesiology Medical Assistant	Medical Assistant
	TA	Dermatology Assistant	Medical Assistant
	TA	Leprosy Assistant	Medical Assistant
	TA	Medical Assistant	Medical Assistant
	TA	Orthopedic Assistant	Medical Assistant
	TA	Physiotherapy Assistant	Medical Assistant
	TA	Rehabilitation Assistant	Medical Assistant
	TO	Leprosy Assistant	Medical Assistant
Dentist	P5	Dentist	Dental Therapist
	P7	Principal Dentist	Dental Therapist
	P8	Dentist	Dental Therapist
Pharmacist	P5	Chief Pharmacist	Pharmacy Technician
	P7	Principal Pharmacist	Pharmacy Technician
	PO	Pharmacist	Pharmacy Technician
Registered Nurse	CTO	Chief Nursing Sister	Nurse
	CTO	Nursing Officer	Nurse
	CTO/PO	Matron	Nurse
	P7	Principal Nursing Officer	Nurse
	P7	Principal Nursing Superintendent	Nurse
	P8	Hospital Matron	Nurse

	P8	Matron	Nurse
	P8	Senior Nursing Officer	Nurse
	P8	Senior Nursing Sister	Nurse
	PO	Night Superintendent Nursing Officer	Nurse
	PO	Nursing Officer	Nurse
	PO/CTO	Nursing Officer	Nurse
	PO/CTO	Superintendent Nursing Officer	Nurse
	STA	Senior Ophthalmic Nurse	Nurse
	STA	Senior Orthopedic Nurse	Nurse
	STO	Matron	Nurse
	STO	Nursing Officer	Nurse
	STO	Senior Night Superintendent Sister	Nurse
	STO	Senior Nursing Officer	Nurse
	STO	Senior Nursing Sister	Nurse
	STO	Senior Registered Nurse	Nurse
	TO	Nursing Officer	Nurse
	TO	Nursing Sister	Nurse
	TO	State Registered Nurse	Nurse
Psychiatric and	E III	Community Health Worker	Nurse
Community Health Nurses	PO	Psychiatric Nurse	Nurse
	PO	Public Health Nurse	Nurse
	STA	Community Health Nurse	Nurse
	STA	Community Health Worker	Nurse
	STA	Enrolled Community Health Nurse	Nurse
	STA	Enrolled Psychiatric Nurse	Nurse
	STA	Senior Community Health Midwife	Nurse
	STA	Senior Community Health Nurse	Nurse
	STA	Senior Community Health Worker	Nurse
	STA	Senior Enrolled Community Health Nurse	Nurse
	STA	Senior Enrolled Psychiatric Nurse	Nurse
	STA	Senior Enrolled Psychiatric Nurse/Midwife	Nurse
	STA	Senior Psychiatric Nurse	Nurse
	STO	Senior Community Health Nurse	Nurse
	STO	Senior Enrolled Psychiatric Nurse	Nurse
	STO	Senior Enrolled Psychiatric Nurse/Midwife	Nurse
	STO	Senior Psychiatric Nurse	Nurse
	STO	Senior Public Health Nurse	Nurse
	TA	Community Health Worker	Nurse
	TA	Enrolled Community Health Nurse	Nurse

	TA	Psychiatric Nurse	Nurse
	TO	Community Health Nurse	Nurse
	TO	Enrolled Community Health Nurse	Nurse
	TO	Enrolled Psychiatric Nurse	Nurse
	TO	Psychiatric Nurse	Nurse
	TO	Senior Enrolled Community Health Nurse	Nurse
	TO	Senior Enrolled Psychiatric Nurse	Nurse
	TO	Senior Enrolled Psychiatric Nurse/Midwife	Nurse
Health Surveillance Assistant	SC I	Health Surveillance Assistant	HSA
	SC I	Senior Health Surveillance Assistant	HSA
	SC II	Health Surveillance Assistant	HSA
	SC II	Senior Health Surveillance Assistant	HSA
	SC IV	Health Surveillance Assistant	HSA
Senior Allied Professional	P5	Chief Medical Engineering Officer	Medical Engineer
	P5	Chief Physiotherapist	Physiotherapist
	P7	Principal Electromedical Engineer	Medical Engineer
	P7	Principal Medical Engineer	Medical Engineer
	P8	Senior Medical Engineer	Medical Engineer
	P8	Senior Physiotherapist	Physiotherapist
Nurse Midwife Tech./	STA	Senior Enrolled Midwife	Nurse
Enrolled Nurse-Midwife	STA	Senior Enrolled Nurse	Nurse
	STA	Senior Enrolled Nurse/Midwife	Nurse
	STA/TO	Senior Enrolled Nurse	Nurse
	STO	Principal Enrolled Nurse	Nurse
	STO	Senior Enrolled Nurse/Midwife	Nurse
	TA	Enrolled Nurse	Nurse
	TA	Enrolled Nurse/Midwife	Nurse
	TA	Nurse Midwifery Technician	Nurse
	TO	Enrolled Nurse	Nurse
	TO	Nurse Midwifery Technician	Nurse
	TO	Senior Enrolled Nurse	Nurse
	TO	Senior Enrolled Nurse/Midwife	Nurse
Radiographer/	CTO	Chief Radiographer	Radiography Tech
Radiology Assistant	CTO	Radiographer	Radiography Tech
	CTO	Radiography Technician	Radiography Tech
	P8	Superintendent Radiographer	Radiography Tech
	PO	Chief Radiographer	Radiography Tech
	PO/CTO	Chief Radiographer	Radiography Tech
	PO/CTO	Radiographer	Radiography Tech
	STA	Senior Radiography Assistant	Radiography Tech

	STO	Senior Radiographer	Radiography Tech
	TA	Radiography Assistant	Radiography Tech
	TO	Radiographer	Radiography Tech
	TO	Radiography Assistant	Radiography Tech
	TO	Radiography Technician	Radiography Tech
	TO	Senior Radiography Attendant	Radiography Tech
Lab/Biomedical Technician	CTO	Chief Laboratory Technician	Laboratory Tech
	P7	Principal Medical Laboratory Tech.	Laboratory Tech
	PO	Biochemist	Laboratory Tech
	PO/CTO	Chief Laboratory Technician	Laboratory Tech
	PO/CTO	Medical Laboratory Technician	Laboratory Tech
	PO/CTO	Medical Laboratory Technologist	Laboratory Tech
	STA	Senior Assistant Laboratory Tech.	Laboratory Tech
	STA	Senior Laboratory Assistant	Laboratory Tech
	STO	Senior Laboratory Technician	Laboratory Tech
	TA	Laboratory Assistant	Laboratory Tech
	TO	Laboratory Technician	Laboratory Tech
Environmental Health/	CTO	Environmental Health Officer	Env. Health Officer
Health Education Staff	P4	TB Specialist	Env. Health Officer
	P5	Entomologist Surgeon	Env. Health Officer
	P7	Principal Environmental Health Officer	Env. Health Officer
	P7	Principal Health Education Officer	Env. Health Officer
	P8	Environmental Health Officer	Env. Health Officer
	P8	Senior Assistant Health Education Officer	Env. Health Officer
	P8	Senior Environmental Health Officer	Env. Health Officer
	PO	District Environmental Health Officer	Env. Health Officer
	PO	Environmental Health Officer	Env. Health Officer
	PO	Health Education Officer	Env. Health Officer
	PO	Senior Environmental Health Officer	Env. Health Officer
	PO/CTO	Environmental Health Officer	Env. Health Officer
	STA	Community Health Assistant	Env. Health Officer
	STA	Senior Health Assistant	Env. Health Officer
	STO	Assistant Environmental Health Officer	Env. Health Officer
	STO	District Health Education Officer	Env. Health Officer
	STO	Environmental Sanitation Officer	Env. Health Officer
	STO	Senior Assistant Environmental Health Of.	Env. Health Officer
	STO	Senior Assistant Health Education Officer	Env. Health Officer
	STO	Senior Environmental Health Officer	Env. Health Officer
	TA	Health Assistant	Env. Health Officer

	TO	Assistant Environmental Health Officer	Env. Health Officer
	TO	Assistant Health Education Officer	Env. Health Officer
	TO	Senior Assistant Environmental Health Of.	Env. Health Officer
Dentistry-Related Staff	CTO	Chief Dental Technician	Dental Therapist
	CTO	Chief Dental Therapist	Dental Therapist
	P5	Chief Dental Therapist	Dental Therapist
	P8	Superintendent Dental Therapist	Dental Therapist
	PO/CTO	Chief Dental Technician	Dental Therapist
	STO	Senior Dental Technician	Dental Therapist
	TA	Dental Assistant	Dental Therapist
	TO	Dental Technician	Dental Therapist
	TO	Dental Therapist	Dental Therapist
Pharmacy-Related Staff	STA	Pharmacy Technician	Pharm Tech
	STA	Senior Pharmacy Assistant	Pharm Tech
	STO	Senior Pharmacy Technician	Pharm Tech
	TA	Pharmacy Assistant	Pharm Tech
	TO	Pharmacy Technician	Pharm Tech
Allied Professional Staff	PO	Electromedical Engineer	Medical Engineer
	PO	Environmental Health Officer	Env. Health Officer
	PO/CTO	Medical Engineer	Medical Engineer
	PO/CTO	Physiotherapist	Physiotherapist
	STO	Electromedical Engineer	Medical Engineer
	STO	Senior Medical Engineer	Medical Engineer
	STO	Senior Medical Engineer Technician	Medical Engineer

## Annex I. Element 1: MOH and CHAM staffing by cadre, actual vs. targets, 2004 – 2009

Cadre	2004		2005		2006		2007		2008		2009		2010
	TAR GET	ACT UAL	TAR GET	ACT UAL	TAR GET	ACT UAL	TAR GET	ACT UAL	TAR GET	ACT UAL	TAR GET	ACT UAL	TAR GET
Clinical Officer	484	594	576	594	668	640	763	746	880	875	967	958	1054
Dental Therapist	109	112	144	117	180	136	219	192	280	167	301	180	341
Environmental Health Officer	302	353	403	363	506	376	614	397	768	410	921	436	1074
Laboratory Technician	90	160	134	125	178	178	222	310	272	334	321	380	369
Medical Assistant	593	535	685	519	777	566	869	670	981	740	1053	925	1145
Medical Engineer	22	20	27	20	34	19	41	23	48	15	53	18	58
Nurse	4147	3456	4419	3166	4691	3942	4963	4139	5234	4277	5505	4812	5776
Pharmacy Technician	105	120	116	134	127	98	142	192	165	197	187	221	209
Physician	122	43	142	95	163	142	184	148	205	199	205	265	205
Physiotherapist	17	10	34	24	50	20	69	15	89	35	108	40	127
Radiography Technician	56	50	72	40	89	67	109	97	135	109	160	134	185
TOTAL	6047	5453	6752	5197	7463	6184	8195	6929	9057	7358	9781	8369	10543
HSA (Established)		4886		4886		4664		4902		4826		4707	
HSA (Non-Established)		0		0		0		5153		5725		5800	
TOTAL HSA (Est and Non-Est)		4886	0	4886	0	4664	0	10055	0	10551	0	10507	0
TOTAL 11 CADRES + HSA	6047	10339	6752	10083	7463	10848	8195	16984	9057	17909	9781	18876	10543

Source: Actual figures based on Vacancy Analysis provided by HR Departments of MOH and CHAM Secretariat. Targets taken from *Martin-Staple, Anne. Six-Year Human Resource Relief Programme: Revisions and Year-One Implementation Plan. Short-term consultancy report, December 2004.*

### Annex J. Element 1: MOH and CHAM Vacancy Rates, 2004 – 2009

#### 1) MOH Vacancy Rates for the 11 Priority Cadres and HSAs, 2004 - 2009

Cadre	2004 (June)				2005 (June)				2006 (Sept)			
	Established Post	Filled Post	Vacancies	Vacancy rate	Established Post	Filled Post	Vacancies	Vacancy rate	Established Post	Filled Post	Vacancies	Vacancy rate
Clinical Officer	439	505	-66	-15%	510	518	-8	-2%	578	482	96	17%
Dental Therapist	120	103	17	14%	120	109	11	9%	121	119	2	2%
Environmental Health Officer	1298	347	951	73%	1303	359	944	72%	1208	365	843	70%
HSA (Established)	4764	4886	-122	-3%	4764	4886	-122	-3%	4764	4664	100	2%
Laboratory Technician	188	87	101	54%	188	95	93	49%	187	119	68	36%
Medical Assistant	685	381	304	44%	611	391	220	36%	715	401	314	44%
Medical Engineer	50	20	30	60%	50	20	30	60%	48	19	29	60%
Nurse	5997	2535	3462	58%	5997	2442	3555	59%	5971	2789	3182	53%
Pharmacy Technician	147	99	48	33%	147	109	38	26%	147	73	74	50%
Physician	169	22	147	87%	200	76	124	62%	262	104	158	60%
Physiotherapist	94	10	84	89%	96	10	86	90%	99	3	96	97%
Radiography Technician	167	42	125	75%	136	24	112	82%	167	46	121	72%
<b>TOTAL</b>	14118	9037	5081	36%	14122	9039	5083	36%	14267	9184	5083	36%
<b>TOTAL (No HSAs)</b>	9354	4151	5203	56%	9358	4153	5205	56%	9503	4520	4983	52%

Cadre	2007 (Oct)				2008 (Aug)				2009 (Dec)			
	Established Post	Filled Post	Vacancies	Vacancy rate	Established Post	Filled Post	Vacancies	Vacancy rate	Established Post	Filled Post	Vacancies	Vacancy rate
Clinical Officer	391	536	-145	-37%	2726	660	2066	76%	2726	682	2044	75%
Dental Therapist	119	135	-16	-13%	496	103	393	79%	488	101	387	79%
Environmental Health Officer	1435	386	1049	73%	7540	393	7147	95%	7540	416	7124	94%
HSA (Established)	4762	4902	-140	-3%	4762	4826	-64	-1%	4762	4707	55	1%
Laboratory Technician	180	119	61	34%	546	144	402	74%	546	172	374	68%
Medical Assistant	644	488	156	24%	1262	558	704	56%	1262	699	563	45%
Medical Engineer	49	23	26	53%	39	15	24	62%	39	18	21	54%
Nurse	6102	2957	3145	52%	13357	3083	10274	77%	13357	3448	9909	74%
Pharmacy Technician	146	105	41	28%	543	98	445	82%	543	101	442	81%
Physician	233	111	122	52%	553	147	406	73%	561	200	361	64%
Physiotherapist	106	9	97	92%	248	16	232	94%	248	15	233	94%
Radiography Technician	163	70	93	57%	289	82	207	72%	289	92	197	68%
<b>TOTAL</b>	14330	9841	4489	31%	32361	10125	22236	69%	32361	10651	21710	67%
<b>TOTAL (No HSAs)</b>	9568	4939	4629	48%	27599	5299	22300	81%	27599	5944	21655	78%

Source: Vacancy Analysis, prepared by MOH HR Department.

## 2) CHAM Vacancy Rates for the 11 Priority Cadres, 2004 - 2009

Cadre	2004 (June)				2005				2006			
	Established Post	Filled Post	Vacancies	Vacancy rate	Established Post	Filled Post	Vacancies	Vacancy rate	Established Post	Filled Post	Vacancies	Vacancy rate
Clinical Officer	132	89	43	33%	132	76	56	42%	985	158	827	84%
Dental Therapist	155	9	146	94%	155	8	147	95%	378	17	361	96%
Environmental Health Officer	18	6	12	67%	18	4	14	78%	128	11	117	91%
HSA									0			
Laboratory Technician	183	73	110	60%	183	30	153	84%	473	59	414	88%
Medical Assistant	278	154	124	45%	278	128	150	54%	215	165	50	23%
Medical Engineer									0			
Nurse	2084	921	1163	56%	2084	724	1360	65%	3429	1153	2276	66%
Pharmacy Technician	71	21	50	70%	71	25	46	65%	360	25	335	93%
Physician	56	21	35	63%	56	19	37	66%	243	38	205	84%
Physiotherapist	0	0	0	0%	0	14	-14	#DIV/0!	38	17	21	55%
Radiography Technician	118	8	110	93%	118	16	102	86%	216	21	195	90%
<b>TOTAL</b>	<b>3095</b>	<b>1302</b>	<b>1793</b>	<b>58%</b>	<b>3095</b>	<b>1044</b>	<b>2051</b>	<b>66%</b>	<b>6465</b>	<b>1664</b>	<b>4801</b>	<b>74%</b>

Cadre	2007 (March)				2008 (April)				2009			
	Established Post	Filled Post	Vacancies	Vacancy rate	Established Post	Filled Post	Vacancies	Vacancy rate	Established Post	Filled Post	Vacancies	Vacancy rate
Clinical Officer	985	210	775	79%	1029	215	814	79%	1064	276	788	74%
Dental Therapist	378	57	321	85%	382	64	318	83%	394	79	315	80%
Environmental Health Officer	128	11	117	91%	93	17	76	82%	98	20	78	80%
HSA												
Laboratory Technician	473	191	282	60%	478	190	288	60%	494	208	286	58%
Medical Assistant	215	182	33	15%	224	182	42	19%	235	226	9	4%
Medical Engineer												
Nurse	3429	1182	2247	66%	3461	1194	2267	66%	3602	1364	2238	62%
Pharmacy Technician	360	87	273	76%	339	99	240	71%	349	120	229	66%
Physician	243	37	206	85%	257	52	205	80%	265	65	200	75%
Physiotherapist	38	6	32	84%	49	19	30	61%	51	25	26	51%
Radiography Technician	216	27	189	88%	222	27	195	88%	234	42	192	82%
<b>TOTAL</b>	<b>6465</b>	<b>1990</b>	<b>4475</b>	<b>69%</b>	<b>6534</b>	<b>2059</b>	<b>4475</b>	<b>68%</b>	<b>6786</b>	<b>2425</b>	<b>4361</b>	<b>64%</b>

Source: CHAM Vacancy Analysis, prepared by CHAM Secretariat.

### Annex K. Element 2: Graduates from Training Institutions 2002 – 2009

	Cadre	2004	2005	2006	2007	2008	2009	TOTAL
CHAM	Nurse (+ Midwives)	294	367	381	376	379	406	2203
	Clinical Officer	27	17	19	26	25	34	148
	Medical Assistant	67	0	62	25	68	33	255
	Laboratory Technician	10	21	20	0	15	28	94
Total CHAM		398	405	482	427	487	501	2,700
KCN	Nurse (+ Midwives)	99	90	111	166	155	138	759
COM	Physician	18	13	25	40	46	31	173
	Laboratory Technician	0	0	0	0	14	18	32
	Pharmacy Technician	0	0	0	0	0	8	8
Total COM		18	13	25	40	60	57	213
MCHS	Nurse (+ Midwives)	182	154	107	126	169	155	893
	Clinical Officer	53	70	93	86	66	126	494
	Medical Assistant	89	89	98	114	117	120	627
	Laboratory Technician	16	13	15	45	13	85	187
	Pharmacy Technician	22	16	39	17	19	17	130
	Radiography Technician	9	14	27	19	24	18	111
	Dental Therapist	9	8	7	9	8	12	53
	Physiotherapist	0	0	0	0	0	0	0
	Environmental Health Officer	22	51	20	21	19	16	149
Total MCHS		402	415	406	437	435	549	2,644
TOTAL		917	923	1,024	1,070	1,137	1,245	6,316

*Source: MCHS, COM, KCN, and CHAM Training Institutions.*

### Annex L. Element 2: Total Graduates by Cadre, 2004 – 2009

Cadre	2004	2005	2006	2007	2008	2009	TOTAL
Physician	18	13	25	40	46	31	173
Nurse (+ Midwives)	575	611	599	668	703	699	3,855
Clinical Officer	80	87	112	112	91	160	642
Medical Assistant	156	89	160	139	185	153	882
Laboratory Technician	26	34	35	45	42	131	313
Pharmacy Technician	22	16	39	17	19	25	138
Radiography Technician	9	14	27	19	24	18	111
Dental Therapist	9	8	7	9	8	12	53
Physiotherapist	0	0	0	0	0	0	0
Environmental Health Officer	22	51	20	21	19	16	149
Medical Engineer	0	0	0	0	0	0	0
Total	917	923	1,024	1,070	1,137	1,245	6,316

*Source: MCHS, COM, KCN, and CHAM Training Institutions.*

### Annex M. Element 2: Enrolments from Training Institutions, 2002 – 2009

	Cadre	2004	2005	2006	2007	2008	2009	TOTAL
CHAM	Nurse (+ Midwives)	256	441	424	588	524	87	2320
	Clinical Officer	29	13	44	34	28	0	148
	Medical Assistant	0	0	81	22	40	0	143
	Laboratory Technician	20	15	28	42	24	0	129
<b>Total CHAM</b>		<b>305</b>	<b>469</b>	<b>577</b>	<b>686</b>	<b>616</b>	<b>87</b>	<b>2,740</b>
KCN	Nurse (+ Midwives)	325	372	372	450	467	510	2496
COM	Physician	56	42	53	53	73	61	338
	Laboratory Technician	0	0	16	0	31	22	69
	Pharmacy Technician	0	0	8	18	19	20	65
<b>Total COM</b>		<b>56</b>	<b>42</b>	<b>77</b>	<b>71</b>	<b>123</b>	<b>103</b>	<b>472</b>
MCHS	Nurse (+ Midwives)	180	205	173	205	192	0	955
	Clinical Officer	118	119	115	112	91	0	555
	Medical Assistant	121	120	124	121	120	0	606
	Laboratory Technician	42	20	22	102	20	0	206
	Pharmacy Technician	27	20	45	25	20	0	137
	Radiography Technician	20	20	33	26	20	0	119
	Dental Therapist	10	10	15	16	20	0	71
	Physiotherapist	0	0	0	0	0	0	0
	Environmental Health Officer	22	20	21	28	30	0	121
<b>Total MCHS</b>		<b>540</b>	<b>534</b>	<b>548</b>	<b>635</b>	<b>513</b>	<b>0</b>	<b>2770</b>
<b>Total</b>		<b>1,226</b>	<b>1,417</b>	<b>1,574</b>	<b>1,842</b>	<b>1,719</b>	<b>700</b>	<b>8478</b>

*Source: MCHS, COM, KCN, and CHAM Training Institutions. Note that 2009 Enrolments decreased due to change in policy regarding student fees; in some cases, the Fall 2009 cohort of students was pushed back to the following year.*

**Annex N. Element 2: Total Enrolments by Cadre, 2004 – 2009**

Cadre	2004	2005	2006	2007	2008	2009	TOTAL
Physician	56	42	53	53	73	61	338
Nurse (+ Midwives)	761	1,018	969	1,243	1,183	597	5,771
Clinical Officer	147	132	159	146	119	0	703
Medical Assistant	121	120	205	143	160	0	749
Laboratory Technician	62	35	66	144	75	22	404
Pharmacy Technician	27	20	53	43	39	20	202
Radiography Technician	20	20	33	26	20	0	119
Dental Therapist	10	10	15	16	20	0	71
Environmental Health Officer	22	20	21	28	30	0	121
<b>Total</b>	<b>1,226</b>	<b>1,417</b>	<b>1,574</b>	<b>1,842</b>	<b>1,719</b>	<b>700</b>	<b>8,478</b>

*Source: MCHS, COM, KCN, and CHAM Training Institutions. Note that 2009 Enrolments decreased due to change in policy regarding student fees; in some cases, the Fall 2009 cohort of students was pushed back to the following year.*

**Annex O. Element 2: HSAs trained in Districts, status as of March 2010**

District	Total No.	Trained	In training	Not trained yet	Planned for training
Chitipa	145	145	0	0	
Rumphi	166	165	0	1	
Karonga	196	195	0	1	
Mzimba N	248	240	0	12	
Mzimba S	317	289	0	28	
Nkhatabay	176	174	0	2	35
Likoma					
<b>Sub-Total</b>	<b>1,248</b>	<b>1,208</b>	<b>0</b>	<b>43</b>	<b>35</b>
Kasungu*	584	334	30	220	35
Nkhotakota	248	216	0	32	35
Dowa *	487	395	20	72	
Ntchisi	203	203	0	0	
Salima	345	285	50	10	
<b>Sub-Total</b>	<b>1,867</b>	<b>1,468</b>	<b>100</b>	<b>334</b>	<b>70</b>
Dedza	540	395	105	40	
Lilongwe	1,100	785	15	300	35
Mchinji	360	301	0	59	35
Ntcheu	469	442	20	7	
<b>Sub-Total</b>	<b>2,469</b>	<b>1,958</b>	<b>140</b>	<b>406</b>	<b>70</b>
Balaka	268	263	0	5	
Machinga	372	348	0	24	35
Mangochi	615	305	0	310	35
Mulanje	451	289	70	92	
Phalombe	265	265	0	0	
Zomba	678	359	70	249	
<b>Sub-Total</b>	<b>2,649</b>	<b>1,937</b>	<b>140</b>	<b>675</b>	<b>70</b>
Blantyre	587	450	50	87	
Chiradzulu	272	238	20	14	
Chikwawa	356	223	0	168	
Neno	74	73	0	1	
Nsanje	205	202	0	3	
Mwanza	82	77	0	5	
Thyolo	502	347	0	155	35
<b>Sub-Total</b>	<b>2,078</b>	<b>1,743</b>	<b>70</b>	<b>433</b>	<b>35</b>
<b>Total</b>	<b>10,311</b>	<b>8,619</b>	<b>450</b>	<b>1,891</b>	<b>280</b>

Source: Environmental Health Department, MOH.

**Annex P. Currency Conversion Rates**

Year	MK:USD			MK:GBP		
	Average	High	Low	Average	High	Low
2004	107.368	110.460	104.170	196.765	207.173	186.881
2005	118.538	126.210	104.030	215.268	235.982	193.856
2006	139.580	138.000	117.680	257.506	289.889	215.962
2007	143.282	140.840	129.200	286.804	298.462	274.100
2008	143.700	143.330	130.300	266.386	290.129	210.001
2009	144.833	145.000	129.900	226.831	245.919	197.019

Source: [www.OANDA.com](http://www.OANDA.com), *Historical Currency Conversion*

### Annex Q. Total Costs of EHRP 5 Elements, MK and GBP

#### 1. Total Cost in MK

	2004	2005	2006	2007	2008	2009	Total
<b>ELEMENT 1</b>							
MOH Top-Ups (11 Cadres)	-	287,400,105	674,566,808	627,269,127	614,151,122	842,573,793	3,045,960,955
CHAM Top-Ups (11 Cadres)	-	50,899,574	193,529,778	205,444,596	325,712,880	399,291,480	1,174,878,308
HSA Top-ups (Established)	-	-	-	-	36,290,453	143,453,813	179,744,266
HSA Top-ups (Non-established)	-	-	-	127,027,183	141,127,630	142,976,531	411,131,344
Recruitment Galas	-	-	10,000,000	-	14,000,000	-	24,000,000
<b>TOTAL ELEMENT 1</b>	-	338,299,679	878,096,586	959,740,906	1,131,282,085	1,528,295,617	4,835,714,873
<b>ELEMENT 2</b>							
Student Fees	-	-	993,864,003	1,059,647,664	1,067,810,382	1,155,158,631	4,276,480,681
Infrastructure	-	165,354,118	165,703,082	446,175,051	433,050,670	1,152,946,962	2,363,229,883
Regulatory Bodies	-	60,000,000	94,343,320	83,172,370	91,708,000	100,080,000	429,303,690
HSA Training	-	-	-	338,796,378	91,577,667	95,815,012	526,189,057
<b>TOTAL ELEMENT 2</b>	-	225,354,118	1,253,910,405	1,927,791,463	1,684,146,719	2,504,000,605	7,595,203,310
<b>ELEMENT 3</b>							
UNV Programme	20,180,230	22,279,833	167,901,940	190,238,721	236,482,087	264,551,541	901,634,353
<b>TOTAL ELEMENT 3</b>	20,180,230	22,279,833	167,901,940	190,238,721	236,482,087	264,551,541	901,634,353
<b>ELEMENT 4</b>							
TA Costs	-	175,434,186	-	-	-	-	175,434,186
<b>TOTAL ELEMENT 4</b>	-	175,434,186	-	-	-	-	175,434,186
<b>ELEMENT 5</b>							
Computer and equipment	-	-	-	-	10,410,500	-	10,410,500
Study tour	-	-	-	-	251,170	-	251,170
Database Management Training	-	-	-	-	5,508,750	-	5,508,750
<b>TOTAL ELEMENT 5</b>	-	-	-	-	16,170,420	-	16,170,420
<b>GRAND TOTAL 5 ELEMENTS (MK)</b>	20,180,230	761,367,817	2,299,908,931	3,077,771,090	3,068,081,312	4,296,847,762	13,524,157,143

#### 2. Total Cost in GBP

	2004	2005	2006	2007	2008	2009	Total
<b>ELEMENT 1</b>							
MOH Top-Ups (11 Cadres)	-	1,335,081	2,619,620	2,187,101	2,305,489	3,714,549	12,161,840
CHAM Top-Ups (11 Cadres)	-	236,448	751,556	716,324	1,222,708	1,760,306	4,687,342
HSA Top-ups (Established)	-	-	-	-	136,232	632,427	768,659
HSA Top-ups (Non-established)	-	-	-	442,906	529,785	630,323	1,603,014
Recruitment Galas	-	-	38,834	-	52,555	-	91,389
<b>TOTAL ELEMENT 1</b>	-	1,571,528	3,410,009	3,346,331	4,246,770	6,737,605	19,312,244
<b>ELEMENT 2</b>							
Student Fees	-	-	3,859,582	3,694,676	4,008,501	5,092,603	16,655,362
Infrastructure	-	768,132	643,493	1,555,680	1,625,648	5,082,853	9,675,805
Regulatory Bodies	-	278,722	366,374	289,997	344,267	441,210	1,720,570
HSA Training	-	-	-	1,181,282	343,777	422,408	1,947,467
<b>TOTAL ELEMENT 2</b>	-	1,046,854	4,869,449	6,721,635	6,322,194	11,039,073	29,999,204
<b>ELEMENT 3</b>							
UNV Programme	102,560	103,498	652,032	663,306	887,741	1,166,295	3,575,432
<b>TOTAL ELEMENT 3</b>	102,560	103,498	652,032	663,306	887,741	1,166,295	3,575,432
<b>ELEMENT 4</b>							
TA Costs	-	814,957	-	-	-	-	814,957
<b>TOTAL ELEMENT 4</b>	-	814,957	-	-	-	-	814,957
<b>ELEMENT 5</b>							
Computer and equipment	-	-	-	-	39,080	-	39,080
Study tour	-	-	-	-	943	-	943
Database Management Training	-	-	-	-	20,680	-	20,680
<b>TOTAL ELEMENT 5</b>	-	-	-	-	60,703	-	60,703
<b>GRAND TOTAL 5 ELEMENTS (GBP)</b>	102,560	3,536,838	8,931,490	10,731,272	11,517,408	18,942,974	53,762,541

## Annex R. HMIS Indicator Definitions and Coverage

### HMIS Indicators

#### *Definitions*

**Antenatal care:** The percentage of antenatal coverage during any trimester, calculated by dividing the total number of antenatal first visits by the total number of expected pregnancies.

**Delivery:** The percentage of deliveries performed by trained personnel, calculated by dividing the total deliveries by trained personnel by the total number of expected deliveries.

**Immunisation:** The percentage of fully immunized children under one year, calculated by dividing the total number of fully immunized children under one year by the total population of children under one year.

**PMTCT:** The percentage of HIV-positive pregnant women administered Nevirapine for PMTCT, calculated by dividing the total number of HIV-positive pregnant women administered Nevirapine by the total number of HIV-positive pregnant women.

**OPD:** The percentage of outpatient department (OPD) attendance, calculated by dividing the total number of OPD visits by the total population.

Indicator	% Antenatal first visit during any trimester							% Delivery by Trained Personnel						
	2002 -	2003 -	2004 -	2005 -	2006 -	2007 -	2008 -	2002 -	2003 -	2004 -	2005 -	2006 -	2007 -	2008 -
	2003	2004	2005	2006	2007	2008	2009	2003	2004	2005	2006	2007	2008	2009
Chitipa	85%	146%	85%	81%	71%	81%	103%	42%	67%	45%	42%	37%	42%	62%
Karonga	102%	147%	41%	79%	83%	55%	90%	68%	56%	16%	32%	32%	30%	47%
Nkhata Bay	103%	155%	97%	90%	83%	86%	84%	49%	71%	47%	37%	38%	39%	44%
Rumphi	152%	230%	115%	114%	170%	77%	162%	84%	124%	72%	66%	101%	49%	105%
Mzimba	79%	124%	83%	85%	85%	98%	75%	37%	55%	45%	45%	51%	53%	45%
Likoma							120%							60%
Kasungu	87%	148%	81%	89%	78%	98%	84%	24%	44%	28%	26%	26%	44%	31%
Nkhotakota	93%	150%	91%	82%	86%	91%	85%	39%	53%	32%	30%	34%	38%	38%
Ntchisi	75%	115%	79%	69%	79%	84%	88%	26%	45%	33%	30%	35%	34%	48%
Dowa	98%	132%	82%	87%	81%	70%	91%	29%	43%	28%	33%	34%	25%	49%
Salima	120%	162%	114%	80%	101%	78%	101%	42%	51%	53%	35%	42%	43%	64%
Lilongwe	116%	135%	81%	83%	71%	118%	81%	28%	41%	24%	30%	29%	60%	33%
Mchinji	93%	170%	103%	102%	88%	103%	97%	37%	59%	42%	40%	42%	41%	61%
Dedza	101%	164%	90%	82%	76%	93%	133%	28%	46%	28%	33%	32%	44%	61%
Ntcheu	112%	150%	101%	90%	86%	88%	97%	44%	63%	48%	45%	50%	44%	62%
Mangochi	100%	149%	83%	71%	86%	109%	106%	38%	60%	30%	26%	34%	60%	48%
Machinga	118%	195%	126%	119%	122%	81%	111%	50%	80%	55%	51%	54%	47%	61%
Zomba	98%	139%	96%	82%	84%	79%	95%	51%	82%	52%	45%	39%	37%	48%
Chiradzulu	45%	158%	94%	82%	92%	89%	96%	22%	74%	44%	44%	50%	41%	62%
Blantyre	79%	109%	78%	63%	58%	133%	65%	61%	65%	35%	34%	31%	61%	33%
Mwanza	165%	179%	112%	98%	107%	77%	132%	52%	89%	53%	55%	56%	54%	81%
Neno							81%							39%
Thyolo	78%	99%	55%	60%	74%	92%	68%	36%	48%	31%	38%	38%	43%	48%
Mulanje	85%	138%	77%	68%	57%	126%	95%	39%	70%	39%	39%	28%	56%	52%
Chikwawa	107%	359%	86%	75%	93%	185%	97%	44%	58%	41%	36%	37%	105%	44%
Nsanje	147%	198%	139%	134%	136%	92%	140%	72%	97%	66%	63%	61%	51%	78%
Phalombe	121%	142%	108%	94%	126%	73%	130%	41%	53%	46%	39%	47%	40%	57%
Balaka	122%	106%	80%	72%	81%	87%	89%	68%	52%	34%	32%	41%	41%	50%
Malawi	100%	150%	86%	82%	83%	87%	93%	41%	58%	38%	41%	42%	46%	52%

District	% Fully Immunized Child <1							% HIV positive pregnant women administered Nevirapine for PMTCT						
	2002 -	2003 -	2004 -	2005 -	2006 -	2007 -	2008 -	2002 -	2003 -	2004 -	2005 -	2006 -	2007 -	2008 -
	2003	2004	2005	2006	2007	2008	2009	2003	2004	2005	2006	2007	2008	2009
Chitipa	66%	76%	70%	59%	81%	81%	79%				56%	57%	50%	63%
Karonga	76%	65%	32%	58%	74%	77%	81%				42%	66%	64%	87%
Nkhata Bay	52%	63%	63%	63%	71%	74%	75%				39%	57%	97%	88%
Rumphi	88%	80%	80%	84%	126%	140%	131%				38%	52%	80%	86%
Mzimba	59%	54%	60%	70%	60%	60%	59%				45%	80%	40%	76%
Likoma							60%						0%	88%

Kasungu	49%	47%	48%	47%	50%	46%	62%				48%	46%	70%	70%
Nkhotakota	71%	67%	60%	65%	70%	75%	73%				56%	91%	70%	70%
Ntchisi	42%	69%	79%	65%	68%	67%	79%				13%	19%	54%	64%
Dowa	58%	54%	69%	76%	80%	88%	95%				48%	54%	62%	147%
Salima	38%	52%	69%	54%	73%	73%	78%				9%	38%	53%	91%
Lilongwe	46%	32%	42%	49%	47%	56%	54%				112%	99%	150%	96%
Mchinji	49%	50%	46%	55%	52%	63%	71%				57%	56%	79%	82%
Dedza	65%	81%	62%	82%	78%	117%	134%				6%	59%	84%	91%
Ntcheu	62%	65%	69%	68%	77%	93%	78%				14%	16%	69%	91%
Mangochi	47%	41%	45%	41%	51%	66%	73%				31%	41%	63%	87%
Machinga	54%	58%	86%	81%	85%	98%	82%				59%	47%	79%	84%
Zomba	59%	60%	62%	60%	63%	69%	73%				52%	50%	84%	100%
Chiradzulu	25%	53%	57%	53%	59%	79%	90%				294%	136%	70%	98%
Blantyre	48%	54%	49%	47%	40%	43%	54%				66%	73%	112%	81%
Mwanza	94%	81%	89%	93%	120%	112%	91%				28%	319%	258%	83%
Neno							89%						0%	81%
Thyolo	73%	40%	30%	44%	57%	60%	52%				55%	52%	66%	129%
Mulanje	45%	48%	47%	58%	51%	86%	88%				52%	77%	73%	94%
Chikwawa	66%	50%	70%	64%	72%	95%	119%				30%	32%	85%	85%
Nsanje	53%	62%	70%	67%	85%	87%	78%				92%	33%	80%	108%
Phalombe	51%	23%	39%	61%	75%	82%	85%				0%	41%	75%	108%
Balaka	69%	37%	51%	50%	61%	64%	70%				9%	16%	64%	68%
Malawi	55%	51%	55%	59%	62%	70%	65%				75%	64%	87%	92%

District	% OPD Attendance						
	2002 - 2003	2003 - 2004	2004 - 2005	2005 - 2006	2006 - 2007	2007 - 2008	2008 - 2009
Chitipa	103%	119%	85%	110%	98%	110%	119%
Karonga	164%	114%	63%	92%	99%	108%	130%
Nkhata Bay	106%	174%	160%	166%	137%	151%	149%
Rumphu	127%	193%	110%	123%	203%	275%	329%
Mzimba	78%	118%	87%	111%	96%	84%	80%
Likoma							421%
Kasungu	72%	109%	59%	70%	75%	66%	83%
Nkhotakota	140%	198%	116%	148%	154%	167%	166%
Ntchisi	154%	204%	109%	127%	133%	140%	151%
Dowa	87%	117%	81%	91%	105%	133%	141%
Salima	119%	173%	132%	86%	109%	138%	148%
Lilongwe	79%	84%	66%	73%	65%	60%	88%
Mchinji	80%	103%	63%	72%	72%	72%	104%
Dedza	39%	72%	49%	64%	54%	160%	174%
Ntcheu	94%	126%	88%	89%	88%	93%	130%
Mangochi	209%	219%	57%	56%	65%	105%	120%
Machinga	84%	151%	105%	121%	118%	139%	116%
Zomba	90%	137%	77%	85%	89%	91%	105%

Chiradzulu	36%	101%	70%	75%	83%	98%	129%
Blantyre	97%	150%	104%	263%	107%	134%	114%
Mwanza	132%	260%	119%	115%	111%	148%	170%
Neno							219%
Thyolo	58%	89%	56%	76%	80%	93%	105%
Mulanje	89%	112%	61%	79%	51%	95%	126%
Chikwawa	137%	175%	108%	115%	115%	119%	125%
Nsanje	149%	191%	104%	112%	110%	123%	141%
Phalombe	90%	90%	49%	93%	99%	111%	122%
Balaka	143%	83%	72%	103%	132%	154%	141%
Malawi	105%	133%	80%	110%	96%	112%	129%

### Annex S. Lives Saved Tool - Results

#### 1) Additional maternal deaths prevented by intervention related to impact year

	2004	2005	2006	2007	2008	2009
<b>EHRP Malawi</b>						
<b>Pregnancy</b>						
Pregnant women protected via IPT or sleeping under an IIN	0	1	1	2	3	3
Tetanus toxoid	0	1	1	2	2	3
<b>Childbirth</b>						
Antibiotics for pPRoM	0	0	0	1	4	4
Delivery services and emergency obstetric care	0	40	54	111	943	963

#### 2) Additional deaths prevented in children under five years of age by intervention related to impact year

	2004	2005	2006	2007	2008	2009
<b>EHRP Malawi</b>						
<b>Pregnancy</b>						
Syphilis detection and treatment	0	1	2	3	5	6
Pregnant women protected via IPT or sleeping under an IIN	0	4	9	13	19	24
Tetanus toxoid	0	10	20	32	43	55
<b>Childbirth</b>						
Antenatal corticosteroids for preterm labor	0	15	21	43	491	503
Antibiotics for pPRoM	0	13	18	37	184	189
Delivery services and emergency obstetric care	0	76	104	214	848	868
Neonatal resuscitation (institutional)	0	10	13	28	313	320
<b>Vaccines</b>						
Hib vaccine	0	89	161	354	242	248
Pneumococcal vaccine	0	122	221	487	333	341
DPT vaccination	0	20	36	79	54	55
<b>Curative after birth</b>						
ART	0	282	558	1,260	1,860	2,294

Source: Lives Saved Tool module, Spectrum Tools.

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