

Anti-malaria Drugs Management (AMDM) Ethiopia Quarterly Update

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January 2009



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This report is made possible by the generous support of the American people through the U.S. Agency for International Development (USAID), under the terms of cooperative agreement number GHN-A-00-07-00002-00. The contents are the responsibility of Management Sciences for Health and do not necessarily reflect the views of USAID or the United States Government.

About SPS

The Strengthening Pharmaceutical Systems (SPS) Program strives to build capacity within developing countries to effectively manage all aspects of pharmaceutical systems and services. SPS focuses on improving governance in the pharmaceutical sector, strengthening pharmaceutical management systems and financing mechanisms, containing antimicrobial resistance, and enhancing access to and appropriate use of medicines.

Recommended Citation

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Daniel, Gabriel & T.Work, Hailu. *AMDM Ethiopia Quarterly Update, January 2009*. Submitted to the U.S. Agency for International Development by the Strengthening Pharmaceutical Systems Program. Arlington, VA: Management Sciences for Health.

Key Words

Ethiopia AMDM/PMI Quarterly Update

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ACRONYMS

AED	Academy for Education Development
AIDS	Acquired Immunodeficiency Syndrome
AMDM	Anti-Malaria Drugs Management
ART	Antiretroviral Therapy
ARV	Antiretroviral [Drugs]
CDC	Center for Disease Control
Cipro	Ciprofloxacin
COP	Country Operating Plan
CQ	Chloroquine
DACA	Drug Administration and Control Authority
DHO	District Health Office
EDT	Electronic Dispensing Tool
EH	IEthambutol/INH
EPA	Ethiopian Pharmaceutical Association
Etham	Ethambutol
Exp	Expired
FMOH	Federal Ministry of Health
GIS	Geographic Information System
GOE	Government of Ethiopia
GPS	Global Positioning System
HC	Health Center
HCSP	HIV/AIDS Care and Support Program (MSH Bilateral)
Hosp	Hospital
HIV	Human Immunodeficiency Virus
HSDP	Health System Development Plan
INH	Isoniazid
IPT	Intermittent Preventive Treatment
IPTp	Intermittent Preventive Treatment of pregnant Women
IRC	International Rescue Committee
IRS	Indoor Residual Spraying
IT	Information Technology
I-TECH	International Training and Education Center for HIV/AIDS
ITN	Insecticide-Treated Net
JSI	John Snow Inc.
LLINS	Long Lasting Insecticidal Nets
MCP	Malaria Communities Program
M&E	Monitoring And Evaluation

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MIS	Management Information System
MOH	Ministry Of Health
MOP	Malaria Operational Plan
MSH	Management Sciences For Health
MTP	Monitoring, Training and Planning
NMCP	National Malaria Control Program
OI	Opportunistic Infection
ORHB	Oromia Regional Health Bureau
PEPFAR	President's Emergency Plan for AIDS Relief
PF	Plasmodium Falciparum
PFSA	Pharmaceutical Fund and Supply Agency (new Pharmid)
PMI	President's Malaria Initiative
PMTCT	Prevention of Mother to Child Transmission
PV	Plasmodium Vivax
Q	Quinine
RDT	Rapid Diagnostic Tests
RH	Rifampicin/INH
RHB	Regional Health Bureau
RHZE	Rifampicin/INH/Pyrizanamide/Ethambutol
RPMA	Regional Pharmaceutical Management Associate
RPM Plus	Rational Pharmaceutical Management Plus
RTK	Rapid Test Kit
SCMS	Supply Chain Management System
SOP	Standard Operating Procedure
SP	Sulfadoxine-Pyrimethamine / Fansidar
SPS	Strengthening Pharmaceutical Systems
Strepto	Streptomycin
TA	Technical Assistance
TOT	Training of Trainers
UNICEF	United Nations Children's Fund
USAID	U.S. Agency For International Development
USG	United States Government
WHO	World Health Organization
Xx	Expired and Available
ZHO	Zonal health Office

Background

Malaria is ranked as the leading communicable disease in Ethiopia. Almost 75% of Ethiopia's landmass is malarious with 68% of the population at risk of contracting malaria. 60% and 40% of malaria cases are caused by Plasmodium falciparum and P. vivax, respectively. Malaria is unstable in most parts of the country. Over five million clinical cases of malaria are reported annually, representing 16% of all outpatient consultations, 20% of all hospital admissions and 27% of hospital deaths.

In October 2006 Ethiopia was selected as a focus country of the President's Malaria Initiative (PMI), a US\$1.2 billion initiative aiming to reduce malaria-related mortality by 50% in 15 countries in sub-Saharan Africa by 2010. PMI is an interagency initiative led by the United States Agency for International Development (USAID) and including the Centers for Disease Control (CDC). This reduction in mortality will be achieved by reaching 85% coverage of the most vulnerable groups, children under five years of age, pregnant women, and people living with HIV/AIDS, with proven preventive and therapeutic interventions, including artemisinin-based combination therapies (ACTs), insecticide-treated bed nets (ITNs), intermittent preventive treatment of pregnant women (IPTp), and indoor residual spraying (IRS). The PMI resources allocated to Ethiopia is targeting the Oromia Regional State, the country's largest administrative region and which bears the brunt of the country's malaria burden.

SPS is one of the PMI implementation partners in Ethiopia selected to provide technical assistance in the area of anti-malaria drugs management (AMDM). RPM Plus/SPS has been working with the Federal Ministry of Health to strengthen ARV drugs and related products management of ART and PMTCT programs with funding from PEPFAR since 2003 in all the eleven regional states of Ethiopia.

The objective of AMDM is to provide technical, strategic, managerial and operational support to implement and strengthen AMDM activities in Oromia, Ethiopia, thereby contributing to the PMI's goal of achieving a 50% reduction in malaria-associated mortality by 2010. The following table shows the key intervention activities and the status of implementation to date.

All proposed AMDM activities are in line with the Government of Ethiopia (GoE) Health System Development Program (HSDPIII) and the National Malaria Control and Prevention Strategy. SPS will play a strong role in working with PFSA and other country stakeholders in all aspects of the drug supply management system. SPS builds on relevant experiences and best practices of RPM Plus work under PEPFAR in the past five years. SPS will develop a framework that will use existing infrastructure, systems, tools, mechanisms, staff and support at both central and regional levels.

Highlights of Accomplishments

SPS/MSH in collaboration with its partners has undertaken the following:

1. Work Plan Development

Based on the scope of work (SOW) provided by PMI/USAID Ethiopia, SPS/MSH developed a work plan for 2008 which reflects the goals and objectives of the PMI Malaria Operating Plan (MOP) in relation to AMDM.

The work plan serves as a guide for program implementation, a demonstration of links between activities and objectives, a basis for budget estimates, and the foundation for the monitoring and evaluation plan. It outlines key activities and the expected results to be accomplished for the year.

The SPS/PMI work plan for malaria products management (AMDM) in Ethiopia focuses on the following key interventions:

1. Building partnership with key stakeholders
2. Undertaking participatory situation assessment, identify gaps and address constraints
3. Improving storage, handling and security
4. Improving inventory control, transaction and reporting including tracking expiry, stock status and use of treatment registers
5. Training of regional, zonal, district and health facility personnel in AMDM .
6. Seconding pharmacy personnel to Oromia Regional Health Bureau (ORHB), zonal/district sites and use existing SPS staff for site support, M&E and reporting

2. Baseline Assessment

To get a good handle of the gaps and situation on the ground, SPS conducted a rapid operational situation analysis on malaria, TB and HIV drugs and related supplies. The draft assessment tools to be used for the assessment were reviewed by members of the Technical Group for easy administration of the assessment.

The anti-malarial drugs and related supplies management assessment was conducted in October 2008 by SPS/MSH in all the regions of the country with focus on Oromia regional state which is the PMI target regional states.

The main objective of the assessment was to assess the current supply management system through identification of the strengths and weaknesses. The specific objectives include checking for availability of anti-malarial drugs, TB drugs, HIV/AIDS drugs, condoms and other related products (the inclusion of the non-malaria products was at the request of the health team at USAID/Eth). Determining baseline logistics data for future monitoring purposes was also one of the objectives of the assessment. The questions and observations were directed at availability, knowledge, storage and handling, record keeping, reporting, security and amenities e.g. water, power.

The assessment target included: hospitals (19), health centers (31), health posts (27), private drug outlets (33), regions (9), zonal health offices (18), district health offices (29), laboratories (44) representing hospitals and health centers and prescribers (71) from selected hospitals and health centers. More than 50% of the target respondents were from Oromia and the rest from other regional states (except Addis Ababa and Harari) for comparative purposes.



SPS Regional Pharmaceutical Management Associates (RPMAs) and Oromia Regional Health Bureau Representatives at AMDM Orientation and Baseline Assessment Training Session

3. Training and Orientation of Staff on the AMDM Baseline Assessment

The assessment was conducted by RPMAs, ORHB staff and facility personnel. This was done to make sure that the directly involved staff will get a better grasp of the situation and play an active role in interventions.

A training and orientation program was organized for the staff selected to carry out the data collection for the AMDM assessment. The training was given by Gabriel Daniel and other MSH/SPS staffs and focused on the national and international situations on malaria disease and the administration of the prepared assessment questionnaires.

4. Baseline Assessment Targets and Variables

Assessment Targets	Focus	Detail
Facilities	Public	Regional Health Bureaus-RHBs (9), Zonal health offices-ZHOs (18), District health offices-DHOs (29), Hospitals (19), Health centers (31), Health posts (27)
	Private	Private drug outlets (33)
Respondents		Medical Doctors (MDs) (19), Health officers (26), Nurses (26), Health extension workers, Laboratory professionals, Pharmacy professionals
Products	Malaria	Coartem 6, Coartem 12, Coartem 18, Coartem 24, Quinine tab, Quinine Inj, Chloroquine Tab, Chloroquine Syrup, Insecticide treated Nets (ITNs), Rapid Diagnostic Tests (RDTs)
	TB	Rifampicin, Isoniazid, Pyrazinamide, and Ethambutol (RHZE), Rifampicin and Isoniazid (RH), Ethambutol and Isoniazid (EH), Ethambutol and Isoniazid (INH), Streptomycin
	HIV/AIDS	Combivir, Lamivudine, Stavudine, Efavirenz,

		Nevirapine Syrup
	OI Drugs	Fluconazole, Cotrimoxazole, Ciprofloxacin
	Laboratory	Reagents, equipment and supplies related to malaria
	Other	Condom
Variables		Availability, staffing, Logistics Management Information System (LMIS), loss/theft, expiry, storage, procurement, amenities, training/guideline (malaria)
Interviewers		RPMA's, ORHB staff, ZHO/DHO staff, Health Facility (HF) staff

The data collection work was completed; a professional to enter the data was employed on temporary contract basis and the data entry done. The data collection was carried out from all the regional states. Once the data was entered, data analysis was performed for the preparation of the draft assessment report which is currently under preparation.

The assessment identified both strengths and weaknesses in the different aspects of anti-malarial, TB and HIV/AIDS drugs and related supplies management. The following table describes the findings and possible actions for intervention.

5. Summary Conclusion and Recommendation of Baseline Assessment

Major Concerns:		
<ul style="list-style-type: none"> • Availability of malaria products with focus on drugs for children • Expiry due to lack of proper quantification and distribution • Weak information system (pharmacy level medication record, inventory control tools and reporting) • Storage inadequacy and poor organization • Delay in disposal of expired and unusable products (occupy useful space) 		
Gaps	Pluses	Action Ideas
Staffing/Training Training is not widely given in the new malaria drug treatment and product handling. The MOH malaria guideline for diagnosis and treatment is not readily available at the health facilities.	With average staff availability for pharmacy of 7/hosp and 2/HC and for laboratory of 10/hosp and 2/HC, Staffing is optimal. Training in malaria drugs management has been conducted for selected group of pharmacists by EPA and DACA. Training materials are available from other related programs that can be adopted for malaria.	Use existing HIV/AIDS training materials with appropriate modification Adopt Monitoring/Training/Planning (MTP) approach to make it result oriented Train on identified gaps and on-site. Create job-aids for specific interventions.
Product Availability/Expiry Pediatric malaria products are found to be short stocked. INH is not uniformly available. As much as availability was there, there was also significant expiry problem. Expiry is observed in malaria and TB products.	The picture in ARVs is different in that availability and expiry are not major concerns.	The difference in the three products (HIV, TB and Malaria) management is due to the bulk availability and hence risk of expiry of malaria and TB products while there is better forecasting and inventory management of HIV products. Adopt the system of proper quantification using reliable consumption data from health facilities. Use direct delivery of supplies to health facilities as is

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<p>Where applicable, stock-out dates ranged from 1 month to 12 months.</p>		<p>done for ARVs (using PFSA as the delivery mechanism). Use a campaign mode of disposal of obsolete and expired drugs to create room for store reorganization.</p>
<p>Infrastructure/Store Management</p> <p>Although shelving is said to be available at health centers and hospitals, most reported that they were inadequate</p>	<p>Shelving is available in many facilities but is inadequate</p>	<p>Reorganize stores by removing expired drugs. Follow a clean-up campaign for clearing and reorganizing the stores. Provide storage accessories.</p>
<p>LMIS/Reporting</p> <p>Stock cards and bin cards are not in use in all facilities. Where available, most are not current. Treatment registers are available but in less than half of the facilities assessed. Reporting is very poor. The availability of products at the target sites varied immensely for malaria and TB products. Although health facilities reported having high numbers of patients tested for malaria, most of the reports are not broken down by species (vivax or falciparum). This could be a recording problem or there may be technical difficulty in making the differentiation by species. Number of tests reported at zonal levels did not much numbers reported at health facility level.</p>	<p>Laboratory register is available in most facilities ART recording and reporting is in track.</p>	<p>Provide stock cards and bin cards and update inventory.</p> <p>Use medication record (treatment register) at hospital, health center and health post level. Adopt treatment registers in use for ARVs and TB. Follow campaign mode for reinstating proper record keeping system.</p> <p>Adopt the SOP and Electronic Dispensing Tool (EDT) developed for ARV drugs management.</p> <p>Institutionalize record keeping and reporting system.</p> <p>Develop monthly audit sheet/check list for monitoring key intervention areas.</p>
<p>Knowledge</p> <p>Knowledge about the shelf life of LLINs was not encouraging. There is general lack of knowledge on treatment during pregnancy and prevention of malaria in pregnancy.</p>	<p>The use of SP for OIs is widely known in the public sector but not in the private, where different antimalarials including Coartem are cited as the drugs of choice for PF. Knowledge about duration of treatment with Coartem is nearly 100% across the board. The knowledge about preventive measures was also 100% for at least knowing two ways of prevention (spraying, ITN, education and environmental). Knowledge on treatment of severe malaria with injectable quinine is very good.</p>	<p>Provide job-aids and other technical resources for prescribers and dispensers to up-date their knowledge regularly. Provide training in AMDM.</p>
<p>Other</p> <p>Laboratories at health centers lack microscope objectives to make species differentiation. The absence of waste bin without lids and disinfectant is a health hazard for the staff and patients served.</p>	<p>Loss or theft was extremely low in all the target facilities assessed. Physical quality problem of malaria drugs was not mentioned as a big problem. There were some who reported poor treatment response and delivery of near-expiry products from higher levels.</p>	<p>Improve on laboratory recording and reporting system</p>

6. Selected Assessment Findings: Color-Coded & Targeted Performance Monitoring Checklist

Health Facility	Stock Availability																											
	Malaria										TB						HIV/AIDS											
	SP	Coartem 6	Coartem 12	Coartem 18	Coartem 24	Chloroq Tab	CQ Syrup	QuinTab	QuinineInj	ITN	RDT	RHZE	RH	EH	Etham	INH	Strepto	RTX/KHB	Combivir	Lamivudine	Stavudine	Efavirenz	Nevirapine SP	FluconTab	Cotrimox	Cipro	Condom	
Hospital																												
Bahrdar	exp	exp	exp	exp	x	x	x	x				xx	xx	xx	x	x	xx	x	x	x	x	x	x	x	x	x	x	x
Shashemene		exp	x	x	x	x			x			x		x	x		x	x	x	x	x	x	x	x	x	x	x	x
Metu	xx	xx	x	x	xx	xx	exp	xx	xx			xx	xx	xx	x	xx	x		x		x	exp		x		x	x	x
Bulehora				exp	x	x		x	x			x	xx	xx	x	xx	x		x		x	x	x	x	x	x	x	x
Ginir/Dru	exp					xx	exp	x	exp			xx	exp	exp		xx	exp	x	x	x	x	x	x	x	x	x	x	x
Deder																												
Nekemte								x				x		x														
Chiro		x	x	x	x	x		x	x		x	x	x	x	x		x	x	x	x	x	x	x	x	x	x	x	x
Woliso					x	x	x		x			x				x		x	x	x	x	x	x	x	x	x	x	x
Nejo	x			x	x	x	x	x	x			x	x	x	x	x	x											
Karamara																				xx	xx	xx	x	xx	x	x	x	x
Humera		x	x	x	x	x	x	xx	x			x		x	x					x	x	x	x	x	x	x	x	x
Alamata Rx Main	x	x	x	x	x	x	x	xx	x		x	x	x	x	x		xx	x	x	x	x	x			x	x	x	x
Yirgaleam		xx	exp	x	exp	exp			x	x		x	xx	x	xx	x	x	x	xx	x	x	x	x	x	x	x	x	x
Dilla	exp			exp	exp	x		x	x			x	x	x	x	x	x		xx	90d	90d	x	x		x	x	x	
Dilchora		x	exp	x	exp	x	x	x	x			x	x	x	x	x	x			x	x		x	x	x	x	x	x
Assosa		exp	exp	exp	exp	xx		x	x			xx	x	xx	x	exp	exp		xx	x	x	x	xx	x	x	x	x	x
Gambella	exp	exp	exp		xx	xx	x	xx	xx		xx	xx	x	xx		x	x		xx	x		x	xx	x	x	x	x	xx



HEALTH CENTER : Availability of Malaria Products												
Region	Health Center	SP	Coartem 6	Coartem 12	Coartem 18	Coartem 24	ChloroqTab	CQ Syrup	QuinTab	QuinineInj	ITN	RDT
Amhara	Wereta		x	x		x	x		x	x		x
	Dembecha		x		x	x	x	x				x
	Kombolcha	12m	12m	12m	12m	xx	exp	12m	12m	12m		
Oromia	Bati		2m	2m	x	x	5m	12m	x			
	Shashemene		x	x	x							
	Shakiso	x				x			x			
	Yabelo				x		x					
	Metahara		xx	xx	xx	x	exp		xx	exp	x	x
	Metahara Nm		x	xx	x	x			x	xx		
	Mojo		x	x	x	x			x	x		
	Adama		x	x	x	x			x			
	Zwai	exp		x	x	x	x		x	exp	x	
	Gimbi					x	x					x
	Nekemte						x					
	Bako			x	x	xx	x		x			
	Ijaji		2m	2m	2m	2m	x	exp		xx	x	x
	Haromaya		x	x	x	x	x		x	x		
	Gore		x	x	x	xx	x					
Agaro						xx	exp	exp	x			
Jimma		x	x	x	x	x		x	x			
Goro Bale	exp	exp	xx	x	xx	x	xx	x				
Wolenchit												
Afar	Awash		6m	x	12m	x	x		x			
	Gewane		x	x	x	x	x		x			x
Somali	Jijiga			x	x	xx	x		x			x
	Endaselassie		x		x	x	x		xx			
Tigray	Alamata		xx	xx	x	exp	x	x	exp		x	
SNNP	Awassa	x	x	x		x	x		x			x
Benshangul	Bambasi	exp			exp	exp	x		x	xx		x



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HEALTH POST : Treatment level, Capacity and Availability of Malaria Products														
Region	Health Post	TRAINING		ANNUAL TREATMENT		AVAILABILITY								
		Trained		Number Treated		Malaria Drugs					Other			
		yes	no	#Adult	# Ped	Coart6	Coart 12	Coart 18	Coa4 24	Q	CQ	ITN	RDT	Condom
Amhara	Yenesa	x		102					xx		x		xx	
	Mitikolo	x							x					
	Tima		x						x				3	
Oromia	Modjo	x		239	124	x	x		xx				xx	
	Jawis		x	136	49	x	x	x	x	x	x		xx	
	Chancho	x		9					x				1	
	Amerti		x	1780	261									
	Lalisa		x	126	19								5	
	Goro		x	1621	271				xx	x	x		2.5	
	Kewussa		x	45					xx					
	Adele	x		15			x		x				exp	
	gagibechano		x	1							x			
	Balealem	x							x				2	
	Darito	x		38	1				x		x		x	
	Alecue		x	149	61				x				exp	
	Bira		x	249	15				x					
Dagahedu	x		236	98		x		xx	x			xx		

PRIVATE Pharmacies/Outlets : Stock Status									
Region	Private Outlets	STOCK STATUS							
		Malaria Drugs				Others			
		Coart	SP	Chloro	Quinin	TB	Cotrim	Condm	ITN
Amhara	Bahrdar	x	x	x	x		x	x	x
	Wereta		x	x	x		x	x	
Oromia	Shash	x	x	x	x		x	x	
	Gimbi		x	x			x	x	
	Gore		x	x			x	x	
	Metu		x	x	x		x	x	
	Bulehora	x	x	x			x	x	
	Goro						x		
	Ginir						x	x	
	Ginir		x	x			x	x	
	Jimma			x			x	x	
	Jimma		x	x	x		x		
	SW Shewa		x		x		x	x	
	Bako	?	x	x	x		x	x	x
	Nekemte	x	x	x	x		x	x	x
	Chiro	x		x			x	x	
	Welenchiti		x	x			x	x	x
Metahara		x	x			x	x	x	
Modjo			x			x	x		
Adama		x	x	x		x	x		
Afar	Awash7kg		x	x			x		x
	Dupti		x	x			x		
Somali	Jijiga			x			x	x	x
	Jijiga			x			x	x	
Gambela	Gambela		x	x	x		x	x	
Tigray	Humera	x	x	x	x		x	x	
	Alamata		x	x	x		x	x	
	Alamata		x	x	x			x	
SNNP	Xxx			x	x		x	x	
	Yirgalem		x	x			x	x	
	Dilla		x	x			x	x	
Direadawa	Dilla	x	x	x	x		x	x	
	Direadawa		x	x	x		x	x	
	Direadawa			x			x	x	

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HOSPITAL Pharmacy : LMIS Status												
Region	Hospital	LMIS										
		Stockcard			Bincard		Tx Register		Computer		Reported	
		yes	Curr	no	yes	no	yes	no	yes	no	yes	no
Amhara	Bahrdar	X	no		X		art	x		x	art	x
Oromia	Shashemene	x	no		X		x		x			x
	Metu	X			X			x		x		x
	Bulehora	X	no		X		x		x			x
	Ginir/Dru		x			x				x		x
	Deder	X			X		x			x	x	
	Nekemte	X			X		x			x	art	
	Chiro			x	X		x			x		x
	Woliso	X			X			x	x			x
Nejo			x	NA			x		x		x	
Afar	Dupti	X			X			x	art			x
Somali	Karamara	X			X			x	x			x
Tigray	Humera	X			X		x			x	x	
	Alamata Rx Main	X			X			x		x		x
	Alamata RxTec	NA			NA		NA		NA		NA	
	Yirgalem	X			X		x		x			x
SNNP	Dilla	X			X			x	x			x
Diredawa	Dilchora	X			X			x	x			x
Benshangul	Assosa		x		X			x		x		x
Gambella	Gambella		x			x		x		x		x



HOSPITAL LAB ASSESSMENT FINDINGS

Region	Health Facility	LABORATORY INDICATORS													
		Product Availability													
		Geimsa	Imm Oil	Disinf	Glov	RDT	BiMicro	Slide	x100 Obj	Timer	Waste bin	Fridge	Water	Power	RegBook
Amhara	Bahrdar	x	x		x		x			x		x	x	x	
Oromia	Shashemene	x	x	x	x		x	x	x	x	x	xx	x	x	
	Metu	x	x	x	x		x	x	x	x	x	x	x	x	
	Bulehora	x	x		x		x	x	x	x	x	x	x	x	
	Ginir/Rx	x	x		x		x	x	x	x	x	x	x	x	
	Deder		x				x	x			x	x	x		
	Nekemte	x	x	x	x		x	x	x		x	x	x	x	
	Chiro	NA	NA	NA	NA		NA	NA	NA	NA	x	x	x		
	Woliso	x	x	x	x		x	x	x		x	x	x	x	
Nejo	x	x	x	x		x	x	x	x	x	x	x	x		
Afar	Dupti	x	x	x	x		x	x	x		x	x	x		
Somali	Karamara	x	x				x	x	x	x	x	x	x		
Tigray	Humera	x	x		x		x	x		x	x	xx	xx	x	
	Alamata Rx Main	x	x	x	x		x	x	x		x	xx	xx	x	
	Yirgalem	x	x	x	x		x	x	x	x	x	x	x	x	
	SNNP	Dilla	x	x	x	x		x	x	x	x	x	x	x	
Diredawa	Dilchora	x	x	x	x	x	x	x	x	x	x	x	x		
Benshangul	Assosa	x	x	x	x		x	x	x	xx	x	x	x		
Gambella	Gambella	12m	12m		x	x	x	x	x	x	x	x	x		



7. **Selected Assessment Findings: Graphs**

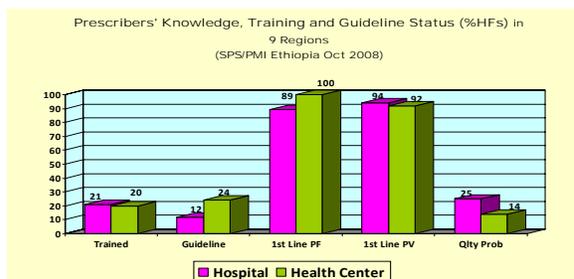
Explanations on approach and parameters used

- A micro-planning workshop was conducted on December 23, 2008 at the Yoli Hotel in which many of the PMI and other partners and stakeholders participated. In the workshop, presentations on the PMI/AMDM program were made, the draft work plan was presented and discussed. A separate consensus building meeting was not held, instead we used this meeting to represent the consensus building meeting.
- The baseline assessment did not undertake a pre-test of the questionnaires, but they were discussed in the training session of data collectors. The general assessment carried out in the different regions was more of a purposive, operational rapid assessment exercise to obtain basic information before going into the actual implementation of the program. It was with this in mind that the color-coded matrix was developed to identify the gaps by facility/location so that corrective measures can be undertaken in the assessed facilities.
- The selection of the assessment sites was carried out and the mapping of the assessment locations made with the support of IRC. The actual map of the intervention sites will be prepared by IRC and will be submitted.
- The preliminary assessment and quarterly reports were summarized versions to be shared with partners and had not been descriptive. The detailed and final report of the baseline assessment, which will have tables, graphs, and description is planned to be completed and submitted by the end of March, 2009.

SN	Parameters	Explanations
1.	Knowledge Status	The assessment questionnaire to providers (Physicians, Health Officers, Nurses, Pharmacy Personnel etc) contained questions pertaining to malaria diagnosis and treatment, malaria prevention measures, etc. The response obtained was compared with the correct answers as indicated in the National Malaria Diagnosis and Treatment Guideline. The graphed response shows the percent of facilities whose providers knew the correct 1 st line treatment for falciparum and vivax, and three methods of malaria prevention (ITN, IRS and environmental measures).
2.	Training Status	The interviewees were asked whether they had training on the new malaria treatment and by whom and when. The graphed response shows percent of health facilities who had their staff trained in the new protocol.
3.	Guidelines Status	The providers were asked whether they have received manuals/guidelines (National Malaria Strategy Manual, the National Malaria Diagnosis and Treatment Guideline). The graphed response shows percent of facilities who reported to have guidelines.
4.	Availability and Expiry of malaria, TB, HIV, OI drugs and laboratory reagents/commodities	On the day of the assessment visit, the data collectors went into the drug stores, dispensary areas and laboratory to check the availability of important key tracer drugs and lab products. They also checked for the presence of expired products and asked for how long they had stock-outs. The graphed response shows percent of facilities that have active drugs and/or expired products .
5.	Storage Status	Proper storage was assessed through direct observations by the data collectors on the

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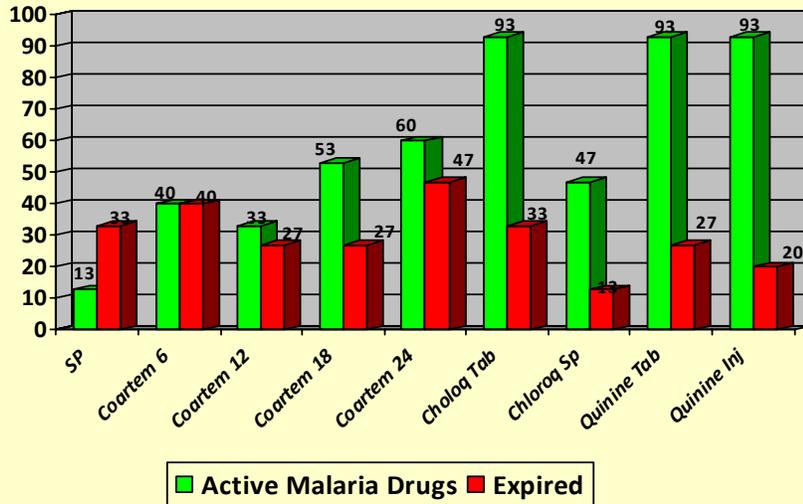
		conditions on how stocks are arranged, labeled, existence of basic storage infrastructures and the availability of shelves etc. The graph shows the percent facilities that have shelves, fridges, have organized storage etc.
6.	Loss Status	Interviewees at stores were asked if they had losses or theft. The response in the graph shows percent of facilities that experienced loss or theft, and that was very minimal.
7.	Disposal Status	The data collectors made visits to the stores and checked for presence of expired/damaged products, quantity of the expired stock, and observed whether these are stored separately from active stock and entered their observations. The graph shows the percent of facilities that claimed as having disposed expired or obsolete products.
8.	Quality Problem	Interviewees were asked if they have come across quality problem (physical observation of drugs) and the graphed response shows percentage of facilities that reported to have encountered quality problems such as discoloration, crashed tablets etc.
9.	LMIS and Reporting Status	The assessment looked at the presence and use of stock cards, bin cards, treatment registers and computers. The graphs show the percent of health facilities that have these tools for management information system purposes. The graphs show the percent of health facilities that claimed to have submitted reports to higher levels.



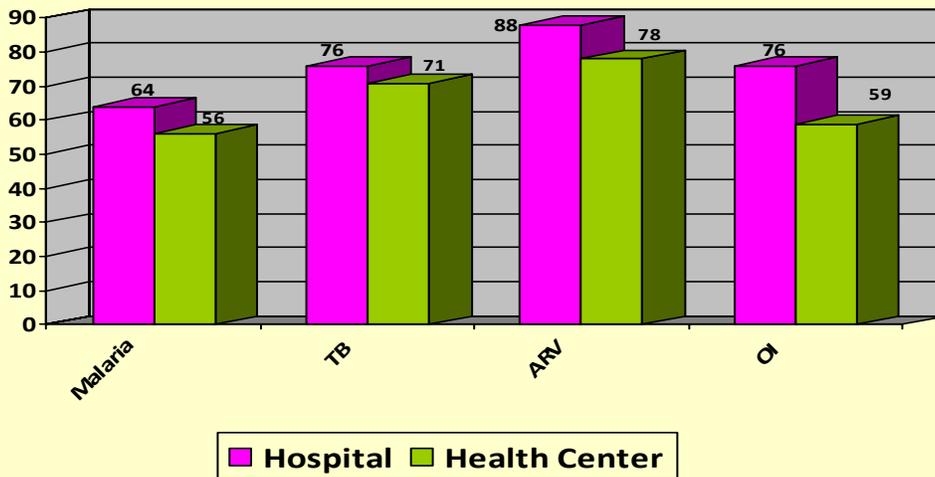
Training The graph shows that 20% of health centers and 21% of hospitals are trained in ACTs and current management of malaria.
Knowledge the graph shows that 100% and 92% of interviewed professionals at HCs knew that Coartem was the 1st line drug for PF and Chloroquine for PV respectively.
Guideline 24% health centers and 12% of hospitals have malaria guideline respectively.



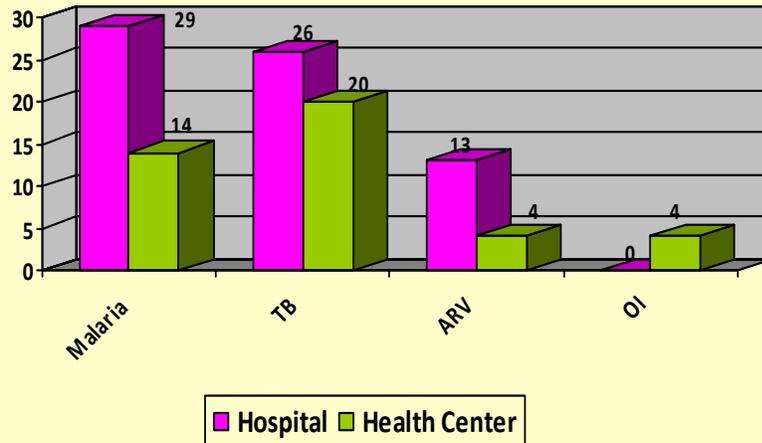
Malaria Drugs Availability and Expiry Status
 % HOSPITALS (n=15) in 7 Regions
 (SPS/PMI Ethiopia-Oct 2008)



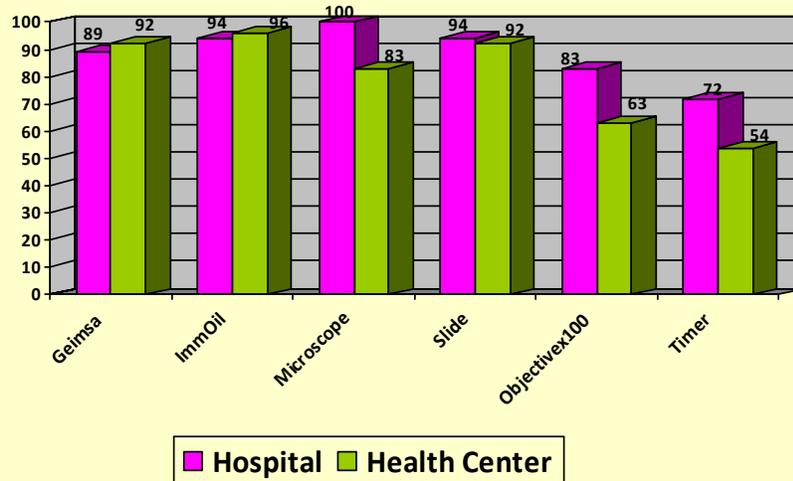
Malaria, TB, HIV and OI Drugs Availability
 (Weighted Average)
 (SPS/PMI Ethiopia Oct 2008)



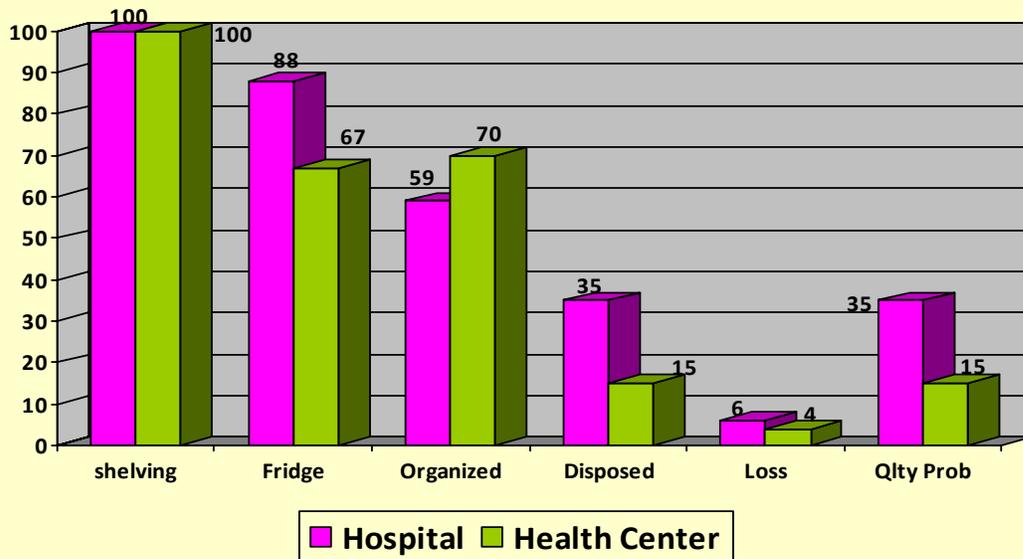
Expiry of Malaria, TB, HIV and OI Drugs
(Weighted Average)
(SPS/PMI Ethiopia Oct 2008)



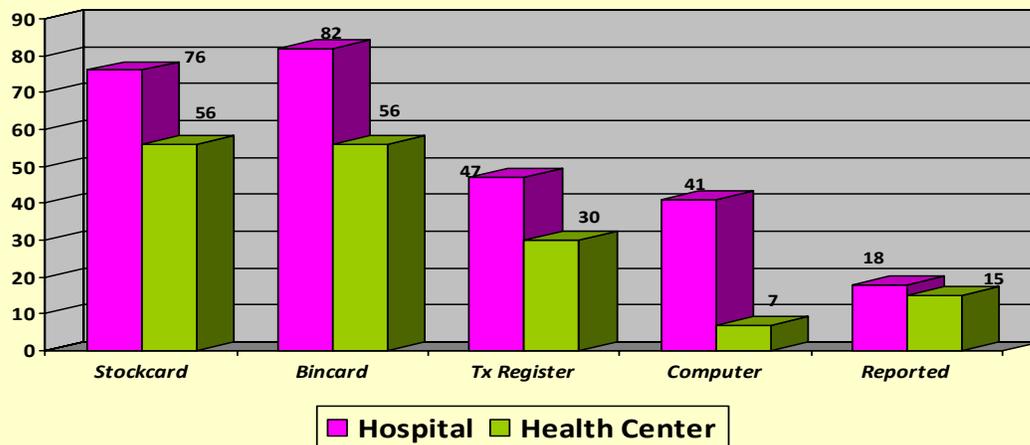
Laboratory Products Availability (% HFs) in 9 Regions
(SPS/PMI Ethiopia Oct 2008)



Storage, Loss and Disposal Status in 9 Regions
(SPS/PMI Ethiopia Oct 2008)



LMIS and Reporting Status in 9 Regions
(SPS/PMI Ethiopia Oct 2008)



8. Micro-Planning Workshop

A one-day workshop was organized for major stakeholders for the purpose of presenting the findings of the baseline assessment and to conduct a micro-planning meeting. About 35 participants representing PMI/USAID, ORHB, SPS/MSH, HCSP/MSH, SCMS/MSH, JSI, ITECH, AED, and Malaria Consortium attended the workshop. Various presentations were made on PMI, national malaria situation, SPS/MSH role, assessment findings and work plan. The micro-planning aspect of the meeting focused on the interventions identified as part of AMDM and findings of the assessment. A color-coded checker box method of identifying gaps with focus on each facility was presented as an operational and performance monitoring tool during the micro-planning workshop. Comments and suggestions made during the workshop were noted to be addressed in the course of implementation.



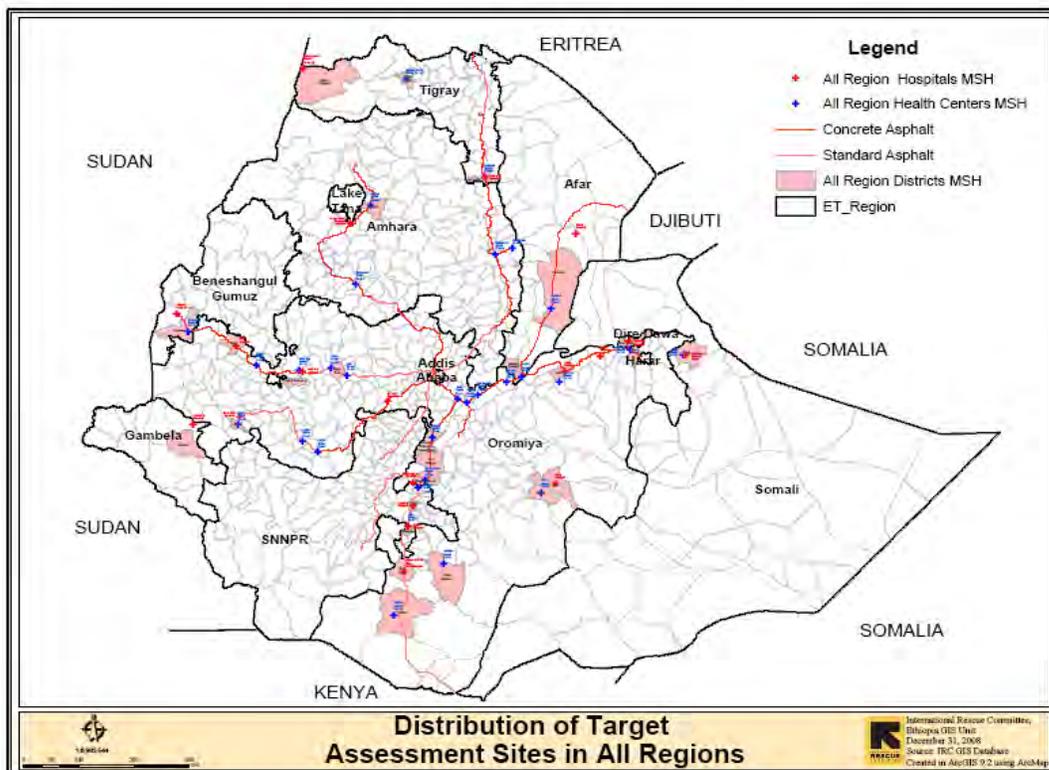
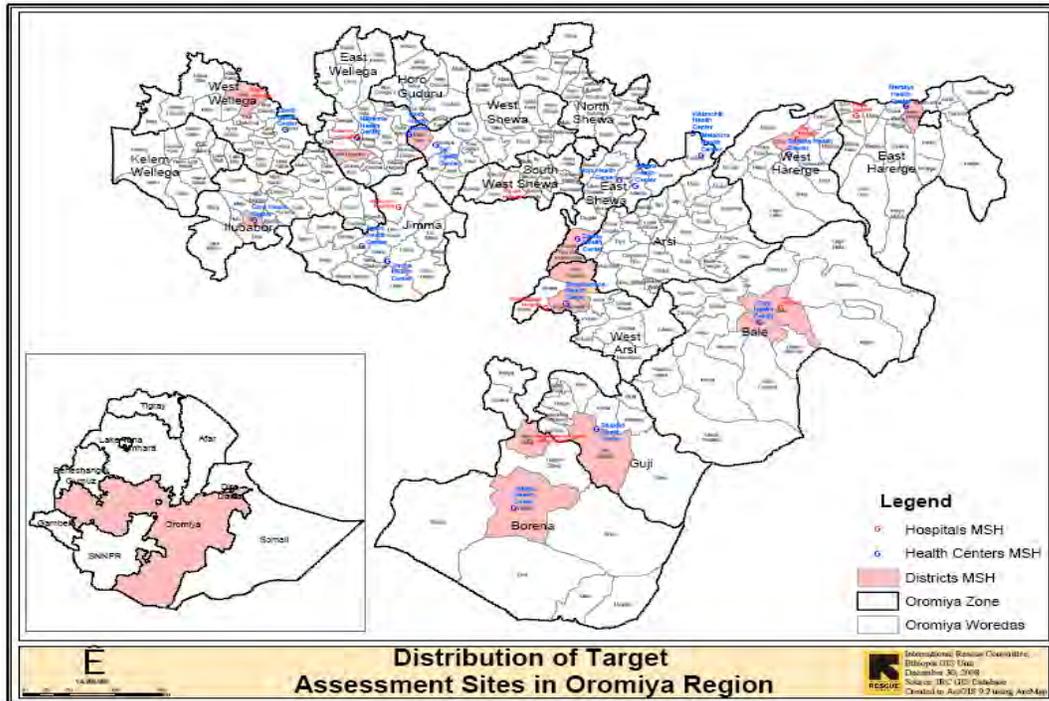
Baseline Assessment Findings Presentation and Micro-planning Workshop at Yoli Hotel (24 Dec 2008)

9. GIS/GPS Training

The work plan includes mapping and georeferencing as one of the activities to be conducted in collaboration with the International Rescue Committee (IRC). In line with this, SPS/MSH sponsored the training of six persons to attend the IRC organized training. These will have direct relations with AMDM. Four of the trainees were from SPS/AMDM and two from Oromia Regional Health Bureau. The training was organized by IRC in Awassa for one week in mid-December 2008. It was attended by IRC Ethiopia and Uganda staff as well. The training was conducted by two IRC national staff. The training was practical and included mapping using GPS and data management using ArcGIS.

10. Mapping of Assessed Sites (Oromia Region & All Regions)

The assessed sites were mapped by IRC for SPS/MSH using ArcGIS and the maps are included below.



11. Other Activities

11.1 Establishment of the PMI-AMDM/SPS Country Office

Mr. Gabriel Daniel came to AA to organize the AMDM /SPS country office. . Thus to establish the activities of the program, Mr Hailu Tegegnework was assigned as a coordinator and Mr. Amano Nure was also assigned to coordinate activities at the regional level.

11.2 Establishment of a Technical Group.

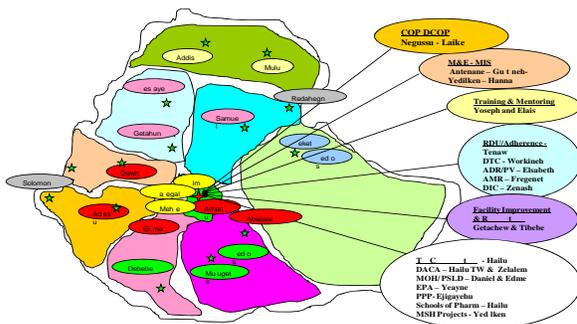
The following SPS/MSH staff were constituted to form a technical working group to support the AMDM/SPS program. The group will advice and ensure harmonization with other SPS/MSH program.

- Mr. Laike Tewoldemedhin, Deputy Chief of Party Technical Operations,
- Mr. Antenane Korra, head of Monitoring/Evaluation,
- Mr. Tenaw Andualem, head of Rational Drug Use unit,
- Mr. Hailu Tadeq, head of program support unit,
- Mr. Gultneh Kebede, head of PMIS unit and,
- Mr. Hailu T. Work, the AMDM/SPS coordinator.

11.3 Staff Recruitment

SPS/MSH will provide technical assistance and guidance to the malaria products management initiative in Oromia Region using three levels of manpower. At SPS/MSH office in Addis, an AMDM coordinator (in the person of Hailu T. Work) is in place who will serve as the main liaison and technical lead. At Oromia Regional Health Bureau level, an RPMA (in the person of Amano Nure) will be fully seconded to the region to assist in all aspects of AMDM. Although the work plan states that there will be 4-5 zonal pharmaceutical management associates, it was found logical to change the approach in the interim so that existing SPS RPMA's will undertake the task assigned to zonal PMAs. There are about ten RPMA's working in Oromia Region who can undertake the task effectively as they are already on the ground, are familiar with the situation and are well regarded by partners. This is in line with leveraging the experience and skills already developed under PEPFAR. The performance and coverage of these RPMA's will be assessed and if the situation requires to do otherwise, zonal PMAs will be recruited.

SPS/MSH TA team and Geographic Positioning of Pharmaceutical Management Associates - Ethiopia – December 2007



11.4 Staff Orientation

Existing SPS RPMAs are oriented about the program during two occasions: one during the assessment phase where RPMAs from all regions were trained and oriented in AMDM to play key role in conducting the assessment, making themselves comfortable with the malaria environment and using their experience to expedite the assessment process. The second occasion was when all SPS/MSH RPMAs and other technical staff came for a quarterly review meeting where the work of AMDM was explained and their role in AMDM formally established in their respective catchment areas, be it in Oromia Region or other regions.

The main task of the RPMAs in AMDM will be to:

- serve as the liaison between SPS, ORHB and HFs.
- identify and plan TA needs,
- assist in training,
- ensure that storage meets acceptable standards at all levels
- ensure uninterrupted supply of malaria products at all levels
- ensure that malaria information system is functional at all levels, including availability of tools and regular reporting
- coordinate the movement of products from the supply depot to the districts and health facilities
- Counseling of patients on the proper use and handling of malaria drugs

11.5 Drafting of Training Manuals, PMIS Tools and accompanying SOPs

Drafting training manuals for the first year training plan of action and drafting of SOPs and other PMIS reporting formats have started. The draft SOPs and formats as well as the training manuals are based on the existing manuals and formats in use for SPS ART program. Once completed, they will be submitted for comments.

11.6 Participation in the Laboratory Micro Planning Workshop organized by ICAP

Hailu T. Work participated in a two day workshop on Malaria Laboratory Strengthening and Diagnostic Monitoring organized by ICAP, a USAID PMI executing partner. The workshop was held from Dec., 2-3, 2008 at the Yoly hotel here in Addis Ababa.

11.7 Discussions with Representatives of Partner Organizations

Gabriel Daniel and Hailu T. Work held discussions with the following persons on AMDM and potential collaborations in the future:

- Dr. Kassa Hailu, Mr. Addisu Mekasha, Mr. Abdulmalik Ebero, Mr. Mohammed Tussi, and Mr. Dawit Teshome from the Oromia Regional Health Bureau(ORHB),
- Dr. Daddi Jima, Head of the National Malaria and Other Vector Borne Diseases Control Program (NMCP),
- Dr. Afework H/Mariam, Deputy Head of the Malaria Consortium ,
- Mr. David Murphy and Mr. Baher Hussein of IRC,
- Mr. Haile Selassie of PFSA,
- Dr. Richard Reithinger, USAID/Ethiopia

The discussions focused on introduction of the new AMDM/SPS –Ethiopia program, the major activities of each organization on malaria control, challenges, and areas of future cooperation between AMDM/SPS and each Partner.

A second round of discussions was also held between the AMDM/SPS management group consisting of Gabriel Daniel, Laike Tewoldemedhin, and Hailu T. Work and the USAID-Ethiopia PMI team consisting of Dr. Richard Reithinger and Ms. Tsion Demisse. The discussion focused on the progress of the AMDM/SPS work plan, findings of the assessment, and preparations of the planned AMDM micro planning workshop. USAID/Ethiopia also suggested that in the future program activities, should focus on the problems of expiring drugs, training of facility level staffs and future schemes for organizing direct supply of drugs to health facilities to lower delivery time in cooperation with some of the commodities supply and distribution agencies, including JSI/Deliver, MSH/SCMS and UNICEF.

11.8 Visit to the ORHB Drug and Medical Supplies Stores in AA and Dukem

Gabriel and Hailu visited the ORHB Drug Stores in Addis Ababa and Dukem town. During this visit the AMDM base line assessment questionnaire on the situation of storage of products in the stores was filled to be part of the assessment.



State of Storage of pharmaceuticals

12. Implementation Status *vis-à-vis* the Work Plan (1st Quarter)

AMDM Objectives	Planned Activities	Status
Establishing Partnerships and holding micro-planning workshop	1. Hold quarterly meeting with partners	Planned
	2. hold a consensus building and micro-planning workshop	Completed
	3. in-house review available AMDM materials, approaches and systems;	Completed
Training and Materials Development	4. Training materials compilation, review, modification, adoption or/and development	On-going
	5. Training in AMDM for central, regional and zonal level health professionals (e.g. staff from PFSA at central level as well as staff from RHB at regional level that may be involved in AMDM) using existing and/or developed training materials.	On-going / Planned
	6. Training of health facility staff.	Planned
	7. Secondment of pharmacy personnel to Oromia RHB and Zonal Health Offices. The secondment of staff will be complemented by technical assistance provided by both in-country and US-based MSH project staff.	On-going
AMDM Framework Implementation	8. Develop a baseline survey design and protocol to assess drug management system.	Completed
	9. Select target sites for the assessment.	Completed
	10. Develop tools/questionnaires for facility level prescribers, dispensers, laboratory personnel and supply management (PFSA, NMCP, RHB, ZHO and DHO)	Completed
	11. Select and train data collectors/interviewers	Completed
	12. Conduct assessment in at least 50% of the target sites in Oromia Region	Completed
	13. Preliminary analysis of data and preparation of interim report	Completed
	14. Establish and operationalize AMDM framework at health facility level.	On-going/ Planned
	15. .Develop simple SOPs and forms that will be used for management of malaria products at all levels (e.g. requisitions, quantification, stock management, coordinating malaria products exchange/transfer, tracking expiry, ensuring data management and reporting.	On-going / Planned
	16. Assist health facilities in timely placement of orders, transfer of surplus, expiry tracking/disposal and stock balance to ensure uninterrupted supply.	Planned
	17. Design and implement user-friendly medication record that features patient profiles, dispensing and rational use monitoring and summary reporting of the same.	On-going
	18. Print and disseminate all standard tools and forms for use and management of malaria products	On-going
	19. Aggregate data from health facilities and districts for regional and central level reporting	Planned
20. Submit quarterly reports on stock-out, available stock, expired items, number of facilities, number of patients	Planned	

	broken down by age and sex, etc.	
	21. Improve the storage and organization capacity of health facilities and zones/districts that will provide malaria services with focus on the main drug store and dispensing pharmacy areas	Planned
	22. Provide shelf units, filing and storage cabinets, thermohygrometers for monitoring temperature and humidity and dispensing rooms and basic office furniture.	Planned
	23. Assist health facilities to reduce leakage or loss by comprehensively tracking stocks and reinforcing windows, doors and lockable partitions for better security.	Planned
Mapping & Georeferencing	24. Train staff in GIS/GPS	Completed
	25. Procure GPS equipment	Planned
	26. Georeference all assessment locations	Completed
	27. Forward data to the International Rescue Committee (IRC), to include in the <i>Geospatial Analysis for Public Health Program</i> .	On-going
Leveraging USG Resources	28. Discuss with USAID/E and Peace Corps how to collaborate with the twenty volunteers are stationed in Oromia in AMDM activities	Planned
	29. Identify potential Ethiopia MCP recipient(s) implementing case management activities and hold discussion for collaboration	Planned
	30. Coordinate AMDM activities with PEPFAR implementing partners, inasmuch as possible.	On-going
	31. Monitoring, Evaluation and Reporting	On-going

13. Next Steps

- Micro-planning meeting with regional, zonal, district and health facility functionaries
- Dissemination of the Proceedings of the Micro Planning Workshop to all partner and stakeholder organizations,
- Organizing a two day orientation and discussion meeting with all MSH/SPS RPMA's working in Oromia and staffs of the ORHB and draw a common plan of action and immediate takeoff of activities in the zones,
- Finalization and dissemination of the final report of the AMDM Assessment,
- Finalization of the preparation and adaptation of existing PMIS forms and corresponding SOPs for use in the AMDM,
- Finalization of the preparation and adaptation of existing Training Materials for use in the AMDM trainings,
- Conducting of TOT for those to be deployed for training of woreda and facility level staffs,
- Provision of Technical Assistance (TA) , supportive supervision and mentoring of facility store staffs on store rearrangement, cleaning, and proper store environment monitoring,
- Provision of TA to health facilities aimed at reducing product expiry, leakage, or loss by tracking stocks and reinforcing windows, doors, and lockable partitions for better security,
- Aggregation of data and reports coming from health facilities for central and regional level reporting,
- Preparation of Quarterly report (Jan.-March, 2009).