

**RPM Plus Regional Training-of-Trainers Course
in Antimalarial Quantification for West Africa, Accra, Ghana
August 8–12, 2005: Workshop Report**

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About RPM Plus

RPM Plus works in more than 20 developing countries to provide technical assistance to strengthen medicine and health commodity management systems. The program offers technical guidance and assists in strategy development and program implementation both in improving the availability of health commodities—pharmaceuticals, vaccines, supplies, and basic medical equipment—of assured quality for maternal and child health, HIV/AIDS, infectious diseases, and family planning and in promoting the appropriate use of health commodities in the public and private sectors.

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ACRONYMS

ACT	artemisinin-based combination therapy
AIDS	acquired immuneodeficiency syndrome
AWARE-RH	Action for West Africa Region/Reproductive Health
DMIS	drug management information system
GFATM	Global Fund to Fight AIDS, Tuberculosis and Malaria
HIV	human immunodeficiency virus
HMIS	health management information system
MSH	Management Sciences for Health
QAM	quantification of antimalarials
RBM	Roll Back Malaria
RPM Plus	Rational Pharmaceutical Management Plus (Program)
SP	sulfadoxine/pyrimethamine
TOT	training of trainers
USAID	U.S. Agency for International Development
VEN	vital, essential, nonessential
WARP	West Africa Regional Program
WHO	World Health Organization

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The authors acknowledge and express their appreciation to the Ministry of Health, Ghana, for ably hosting the workshop and for the steadfast participation of the staff of the Procurement and Supply Directorate, Ministry of Health, and the National Malaria Control Program of the Ghana Health Service.

The authors would also like to thank MSH staff in Arlington, Virginia, who contributed immensely to planning and executing the course. Particular thanks go to Ms. Rima Shretta of the RPM Plus Malaria Team for her significant contribution to workshop material development and to Catherine Adegoke, RPM Plus consultant, for her conscientious technical and administrative input to this course. The authors recognize MSH’s Strategies for Enhancing Access to Medicines (SEAM) office in Ghana for providing administrative support to the training course.

The authors acknowledge the workshop participants who traveled to Accra to learn how to conduct training on quantification of antimalarials to overcome the challenges of quantifying antimalarials in the context of changing treatment policies. These participants included persons in charge of National Malaria Control Programs, Essential Drugs Programs, Central Medical Stores, and pharmacy/procurement and supply units in the Ministries of Health in Benin, Burkina Faso, Cameroon, Ghana, Guinea, Mali, Nigeria, and Senegal.

Immense gratitude goes to the workshop interpreters and translators who made it possible for the French-speaking workshop participants to understand the proceedings.

EXECUTIVE SUMMARY

To strengthen pharmaceutical management for better health, Management Sciences for Health's (MSH) Rational Pharmaceutical Management Plus (RPM Plus) Program developed a regional training-of-trainers course to train program managers and pharmacists in the techniques of quantification for antimalarials. Because many countries in West Africa prepare to change their first-line treatment policies for malaria to artemisinin-based combination therapy (ACT), one of the major challenges is to ensure an uninterrupted supply of effective antimalarials for rational use in all health facilities. Meeting this need requires timely and accurate forecasts as well as correct quantification. Quantification is the process that involves estimating the quantities of a specific item needed for procurement for a specific period. Quantification also involves the financial requirements needed to purchase the items. Good quantification¹ will provide for appropriate allocations of the medicine budget and result in enough antimalarial medicines in stock to meet the demand for different malaria control situations, including intermittent preventive treatment (IPT) and emergency and epidemic needs.

The Regional Training-of-Trainers Course, a five-day event held August 8–12, 2005, in Accra, Ghana, was designed to be highly participatory so participants could exchange skills and experience as an added dimension to the learning process. Attendees included the Ministry of Health staff from malaria control programs, essential medicines programs, Central Medical Stores, and pharmacy or procurement units in eight countries in the West African subregion: Benin, Burkina Faso, Cameroon, Ghana, Guinea, Mali, Nigeria, and Senegal. (Annex 1 contains a list of the participants; Annex 2 presents the agenda of the event.)

The Regional Training-of-Trainers Course consisted of two integrated, yet distinct components: the quantification of antimalarials (QAM) component and the training of trainers (TOT) component. Course days 1–3 focused on training participants to quantify antimalarial needs for their programs, and days 4–5 focused on training participants as trainers, a component designed to better prepare participants to provide training in antimalarial quantification.

The workshop sessions used a combination of the following methods—

- Presentations
- Discussions
- Group exercises

The workshop was conducted in English; however, for the benefit of participants from French-speaking countries in the region, simultaneous interpretation was provided to and from French during presentations, discussions, and group exercises.

Materials for the training course were developed by RPM Plus.

¹ Estimating needs within a given context includes the finances, human resource capacity, storage capacity, and the capacity of the system to deliver services.

Evaluations of the regional workshop noted a successful meeting, with great potential for effectiveness of investment across the participating countries. Large challenges to the quantification of antimalarials remain, however, including structural, technical, managerial, and budgetary limitations across malaria control and essential medicine procurement and supply programs in the region. These challenges, however, can be met by applying the report's recommendations and requests for technical assistance in a strong collaborative setting with other Roll Back Malaria (RBM) partners will make a major contribution to the successful implementation of ACT policies in the region.

As a major next step to the workshop, MSH's RPM Plus Program will develop a plan for liaison with countries in the subregion and for provision of required technical assistance for effective and efficient quantification of antimalarials. This will consolidate the processes initiated at the meeting.

In addition, opportunities for reproducing best practices documented at the workshop and at country level will be identified and implemented in three selected follow-up countries.

INTRODUCTION

Background

The RPM Plus Program of MSH, in collaboration with the Ministry of Health of the Republic of Ghana and the Malaria Action Coalition, held the Regional Training-of-Trainers Course in Antimalarial Quantification for West Africa in Accra, Ghana, August 8–12, 2005. The U.S. Agency for International Development West Africa Program funded the course, which was implemented in collaboration with the Action for West Africa Region/Reproductive Health (AWARE-RH) Project.

The workshop's goal of the workshop was to increase the knowledge and awareness of quantification methods and practices of the participants from the eight countries represented of the West African subregion, and to train participants as trainers who would work to develop local capacity to quantify antimalarial requirements at the national and regional levels.

Rationale for the Workshop

Malaria is among the most important global health problems in Africa, accounting for more than a million deaths each year. About 90 percent of cases occur in tropical Africa, where malaria is the leading cause of mortality in children under the age of five years. A key component of the global malaria strategy is early diagnosis and treatment. In recent years, mounting resistance to commonly used pharmaceutical therapies such as chloroquine and sulfadoxine/pyrimethamine (SP) has rendered them ineffective. As a result, the World Health Organization (WHO) recommends that all countries changing antimalarial treatment policies should switch to ACTs.

Early diagnosis and treatment and the provision of effective antimalarials to all levels of the delivery target requires that the medicines are available in the right quantities and used appropriately at the right time. This process highlights the responsibility of pharmacists and program managers at all levels to ensure that an uninterrupted supply of antimalarials is available, while minimizing wastage and costs and ensuring that they are used rationally. Quantification is the process that involves estimating the quantities of a specific item needed for procurement for a specific period. Quantification also involves determining the financial requirements needed to purchase the items. Good quantification will provide for appropriate allocations of the pharmaceutical budget and result in enough antimalarial medicines stock to meet the demand for different malaria control situations including IPT and emergency and epidemic needs, but the knowledge and skills for making these determinations are largely unavailable or insufficient.

MSH's RPM Plus Program, in an attempt to strengthen pharmaceutical management for better health, developed a regional course to train program managers and pharmacists in the techniques of quantification for malaria management. Immediate intervention is needed to build capabilities within malaria programs to determine the appropriate method of quantification to use and for program managers to obtain accurate and reliable data. Program managers of malaria control

programs and essential medicines programs also need to be trained to use objective methods to adjust quantities according to sometimes limited budgets and to design and implement successful monitoring and evaluation processes. The complexity of the quantification processes highlights the fundamental need for practical tools to ease the process of order planning and budgeting. Because the course was designed for trainers who would train other key stakeholders in their respective country programs, how training skills are transferred, particularly for an adult audience, was a core course component.

Training Course Objectives

The training course on antimalarial quantification was designed to enable course participants to—

1. Discuss the context of changing antimalarial medicines policy and current recommendations for antimalarial treatment and prevention
2. Discuss pharmaceutical management and the context and relevance of quantification with an emphasis on the quantification of antimalarial medicines and commodities
3. Describe the four methods for quantification and select an appropriate method depending on context
4. Describe how quantification of antimalarials is different from quantification of other medicines and apply assumptions unique to antimalarials and ACTs
5. Calculate the estimated needs for antimalarial medicines and commodities and the costs for procuring those antimalarials, using the consumption and morbidity methods on data from their own countries
6. Describe which indicators are appropriate and how they may be used to monitor the effectiveness of quantification
7. Discuss the use of tools to assist in the quantification process
8. Describe the common barriers to learning and discuss teaching methods available to minimize those barriers
9. Review and critique examples of training methods used in the course
10. Demonstrate the teaching and learning methods that are most appropriate for the course materials

Training Course Expected Outcomes

The training course expected outcomes were—

1. Twenty-five trainers trained to conduct training on quantification of antimalarials
2. Trainers exposed to the fundamentals of pharmaceutical management and the context and relevance of quantification, with an emphasis on the quantification of antimalarial medicines and commodities
3. Trainers able to describe the four methods for quantification and select an appropriate method depending on context
4. Trainers able to describe how quantification of antimalarials is different from other quantification and apply assumptions unique to antimalarials and ACTs
5. Trainers able to calculate the estimated needs for antimalarial medicines and commodities, and the costs for procuring these antimalarials, using the consumption and morbidity methods on data from the participants' own countries
6. Trainers able to describe indicators and their use to effectively monitor quantification
7. Trainers aware of existing tools to use in quantification process
8. Trainers aware of common barriers to learning and what teaching methods are available to minimize those barriers
9. Review of training methods used in the course
10. Demonstration of the teaching and learning methods that are most appropriate for the course materials

Methodology

The Regional Training-of-Trainers Course was a five-day event designed to be highly participatory to allow participants to exchange of skills and experience as an added depth to the learning process.

Course days 1–3 focused on training participants to quantify antimalarial needs for their programs and days 4–5 focused on training participants as trainers to better prepare them to provide training in antimalarial quantification.

The workshop sessions consisted of a combination of the following methods—

- Presentations
- Discussions
- Group exercises

The workshop was conducted in English; however, for the benefit of French-speaking participants, simultaneous interpretation was provided to and from during presentations, discussions, and group exercises.

Materials for the training course were developed by RPM Plus.

Training Course Outline

The Regional Training-of-Trainers Course consisted of two integrated, yet distinct components—the QAM component and the TOT component. An overview of the sessions is detailed below. (Annex 2 presents the agenda.)

Quantification of Antimalarials Component (Days 1–3)

- Session 0. Course Overview and Objectives
- Session 1. Global and Regional Malaria Context
- Session 2. Introduction to Quantification
- Session 3. Methods for Estimation of Antimalarial Needs
- Session 4. Data Needed for Quantification
- Session 5. Quantifying of Antimalarials and Assumptions
- Session 6. Practical Applications of Quantification: Calculating Need
- Session 7. Estimating Costs of Procurement
- Session 8. Monitoring and Evaluation
- Session 9. Quantimed and Other Tools for Quantification

Training of Trainers Component (Days 4–5)

- Session 1. Introduction to Training of Trainers
- Session 2. Adult Learning
- Session 3. Teaching and Learning Methods
- Session 4. Role of the Teacher
- Session 5. Preliminary Course Preparation
- Session 6. Presentation Techniques
- Session 7. Workshop Facilitation: Tips for Trainers
- Session 8. Preparation for Workshop Facilitation Activities
- Session 9. Workshop Facilitation Practice Session
- Session 10. Plenary Session: TOT Summary

WORKSHOP PROCEEDINGS—QAM COMPONENT

The highlights of the plenary presentations of the QAM component are summarized below.

Session 0. Course Overview and Objectives

Presenter: Dr. Gladys Tetteh

- The purpose of the workshop was explained: to train trainers to develop capacity at the national and regional levels to quantify antimalarial requirements.
- The objectives of the workshop, described earlier in the report, were highlighted.

Session 1. Global and Regional Malaria Context

Presenter: Dr. Gladys Tetteh

This session discussed the context of malaria globally and regionally. It also introduced the concept of the pharmaceutical management cycle and emphasized the relationships between the cycle components and the role of quantification within the cycle, particularly in the context of the shift from the use of monotherapies to combination therapies.

Presentation highlights included—

- Scope of the malaria problem, especially in Africa
- Challenges to antimalarial treatment
 - Growing parasite (*Plasmodium falciparum*) resistance to commonly used therapies
 - New medicines more expensive
 - Limited experience with new medicines
 - Widespread use of the private sector
 - Poor-quality and substandard medicines
- WHO recommendations for antimalarial treatment
 - All countries needing to change first-line treatments for *P. falciparum* malaria advised to change to ACTs
 - Therapeutic options currently recommended by WHO—
 - Artemether-lumefantrine (in fixed-dose combination)
 - Artesunate plus amodiaquine

- Artesunate plus SP (in areas where SP efficacy remains high)
- Artesunate plus mefloquine (areas of low transmission)

- Reminders of the Abuja targets for Africa (by 2005)

- The pharmaceutical supply management system

- How new malaria policies affect quantification—
 - There is little experience with these new medicines.
 - There are no past data on consumption.
 - Different recommendations exist at different levels of the health system.
 - Implementation of new policies is either phased in or applied nationwide.
 - The push versus pull supply systems raise a number of issues.
 - Public sector versus private sector availability is a factor.
 - Availability influences health facility utilization.

Session 2. Introduction to Quantification

Presenter: Dr. Catherine Adegoke

This session introduced the purpose and rationale for antimalarial quantification. It identified the problems from poor quantification and discussed coordinating resources to achieve effective management of medicines and commodities.

The presentation highlights included—

- Defining *quantification* as—
 - A process that involves estimating quantities of a specific item needed for a procurement for a specific period of time and determining the financial requirements needed to purchase the items
 - Estimating needs within a given context: finances, human resource capacity, storage capacity, and the capacity to deliver services

- Exploring the rationale for quantification

- Identifying the symptoms of poor quantification

- Describing the signs of good quantification

- Discussing the periodicity, actors, and targets of the quantification processes

- Monitoring, coordinating, and implementing activities

Session 3. Methods for Estimation of Antimalarial Needs

Presenter: Dr. Catherine Adegoke

This session introduced the various methods of quantification and defined the principles underlying the choice and use of the various methods. This session also provided guidance on the selection of the appropriate method for quantification depending on the situational context, and it enumerated the different uses of quantification results.

The presentation highlights included—

- Description of the four methods of quantification—
 - Consumption-based
 - Morbidity-based
 - Adjusted consumption
 - Service-level extrapolation
- Applications, limitations, and comparison of the methods
 - Illustrating the use of the various methods
 - Limitations of each of the four methods of consumption
 - Comparison of methods by use, data, limitations, and requirements
 - Comparison of morbidity and consumption methods results: resolving inconsistencies
- Definition of quantification concepts such as total consumption in a period, average monthly consumption, adjusted monthly consumption, filling the supply pipeline, lead time, stock on order, safety stock, adjusting for losses and program growth, number of months' stock on hand

Session 4. Data Needed for Quantification

Presenter: Dr. Catherine Adegoke

This session discussed the types and sources of essential data for each of the methods of quantification as well the inherent limitations of the various types of data.

The presentation highlights included—

- Types of data needed for the different quantification methods
- Potential sources of the data
- Steps for data collection
- Limitations associated with the various types of data

- Coordination of data collection
 - Manual tools
 - Electronic tools
- Data processing
 - Manual tools
 - Electronic tools
- Data reporting
- Coordination mechanisms
- Coordination processes

Session 5. Quantification of Antimalarials and Assumptions

Presenter: Dr. Gladys Tetteh

The introduction of ACTs into malaria treatment policies has changed the quantification process for antimalarials. The quantification process requires the application of several assumptions. Furthermore, unique properties of malaria treatment and ACTs require other assumptions.

This session discussed the challenges to the quantification of antimalarials in changing treatment policies the assumptions that need to be made to execute the quantification process.

The presentation highlights included—

- Peculiarities of antimalarial medicines in general
- Peculiarities of ACTs in particular
- Peculiarities of ACTs that affect quantification
- Capacity of manufacturers to meet demand for ACTs
- Financing of ACT procurement
- Assumptions to be made when quantifying for antimalarial medicines
 - Making assumptions: basic principles
 - Evaluating the quality of the data
 - Evaluating the accuracy of the assumptions

Session 6. Practical Applications of Quantification: Calculating Need

Presenter: Mr. Francis Aboagye-Nyame

This session highlighted the steps in the practical execution of the quantification process and incorporated the hands-on use of data given to participants to calculate needs.

The presentation highlights included—

- The process of quantification
- Critical issues in quantification
- Calculation steps
 - Morbidity method
 - Consumption method
 - Adjusted consumption method
- Group activity

Session 7. Estimating Costs of Procurement

Presenter: Mr. Francis Aboagye-Nyame

The plenary session was combined with exercises and it explored the objective methods for adjusting quantities according to budgets in a limited resource setting.

The determination of costs of procurement is the final step in the quantification process of the antimalarials that have been quantified.

ABC analysis (a method of classifying medicines and other commodities by rate of use and cost within a health facility or system to understand the actual costs of the medicines and commodities, and to analyze which supplies should be purchased) and the VEN (vital, essential, nonessential) analysis (which classifies medicines into three categories according to their health impact) were also explained and demonstrated.

The presentation highlights included—

- Price sources for antimalarial medicines
- Projecting costs
- Adjusting quantities
- ABC analysis
- VEN analysis
- Comparing prices: for example, public versus private sector and wholesale versus retail
- FOB cost, insurance, freight (CIF); and handling charges

- International price comparisons
- Activity

Session 8. Monitoring and Evaluation

Presenter: Dr.Catherine Adegoke

This session discussed the importance of a structured approach to assessing the effects of the quantification of antimalarials.

The presentation highlights included—

- Definition of monitoring, evaluation, and assessments
- Characteristics of performance indicators: definition, use, characteristics
- Evaluation questions
- Indicators for monitoring systems: applications of indicator-based assessments
 - Input indicators
 - Process indicators
 - Output and outcome indicators
 - Impact indicators
- Monitoring methods
 - Routine reporting
 - Supervisory visits
 - Sentinel reporting
 - Special studies
- Illustration of the bad data cycle
- Drug management information system (DMIS)
 - Common deficiencies in a functioning DMIS
 - Documents that form DMIS
 - Record-keeping documents
 - Data reporting forms
 - Acquisition and issue vouchers to document stock transfers
 - Periodic status reports
 - Feedback reports status and analytical reports
 - Procedures for collecting and distributing data and reports

Session 9. Quantimed and Other Tools for Quantification

Presenter: Mr. Francis Aboagye-Nyame

Various organizations have designed a number of practical tools to ease the process of order planning and budgeting. These computerized quantification tools allow health planners, directors of essential medicines programs, and malaria control program managers to calculate are medicine and product needs.

This session introduced Quantimed, an MSH-developed tool used to facilitate the task of quantifying complicated regimens of medicines and supplies and calculating the costs and quantities needed. This tool estimates requirements for medicines, medical supplies, and laboratory materials based on past consumption and morbidity and treatment patterns and enables a comparison of results between these methods.

The presentation highlights included—

- Description of Quantimed including applications and features
- The design of Quantimed to facilitate and improve the order, planning, and budgeting processes
- Quantimed applications
 - What Quantimed can do
 - Limitations of Quantimed and other such tools
- Other tools available
 - RBM costing tool
 - Others
- Quantimed demonstration
 - The Quantimed tool was demonstrated in this session, and participant groups were guided through computer installation of the tool and its use.
 - Features of Quantimed were demonstrated; the results are provided in Annex 3.

WORKSHOP PROCEEDINGS—TOT COMPONENT

The highlights of the plenary presentations of the TOT component are summarized below.

Session 1. Introduction to the Training of Trainers

Presenter: Dr. Ross Holland

The goal of the two-day TOT program was to strengthen the capacity of the participants to facilitate an antimalarial quantification course.

The presentation highlights included—

- Barriers to learning
- Characteristics of the adult learner
- Teaching and learning methods
- Communication and presentation skills
- Antimalarial quantification course
- Evaluation and assessment
- Teaching and learning: focus on participatory learning and active methods, including—
 - Group work
 - Discussions
 - Brainstorming
 - Role-playing
 - Case studies
 - Presentations

Session 2. Adult Learning

Presenter: Dr. Ross Holland

This objective of this session was to enable participants to describe the characteristics of positive and negative learning experiences, describe the characteristics of an adult learner, and identify common barriers to learning.

The presentation highlights included—

- Characteristics of positive and negative learning experiences
- Implications of these experiences
- The characteristics of an adult learner
- Common barriers to learning: physical, attitudinal, emotional
- Establishing a structure for adult learning
 - Setting a climate for learning
 - Assessing the interests, needs, and values of the learners
 - Formulating objectives
 - Designing learning activities
 - Implementing learning activities
 - Evaluating the results

Session 3. Teaching and Learning Methods

Presenter: Dr. Ross Holland

The objective of this session was to enable participants to be able to analyze the relative merits of a variety of teaching and learning experiences as well as to describe where different methods are appropriately used for developing knowledge, skills, and attitudes.

The presentation highlights included—

- Review of teaching and learning methods: lectures, whole group discussion, small group discussion, brainstorming, demonstration, role-playing, case studies, simulation exercises, games
- Dale’s Learning Pyramid (illustration of effectiveness of various teaching methods)

Session 4. Role of the Teacher

Presenter: Dr. Ross Holland

The objective of this session was to enable participants to describe the varied roles of a teacher as a group leader, a planner, a group member, as having a maintenance role, and also as audience, learner, role model, and communicator.

The presentation highlights included looking at the roles of the “teacher” as—

- Facilitator
- Human resource developer
- Trainer
- Tutor
- Change agent

Session 5. Preliminary Course Preparation

Presenter: Dr. Ross Holland

The objective of this session was to enable participants to develop and use a checklist to review logistic arrangements for a workshop.

The presentation highlights included a group exercise that listed logistic problems that should be addressed in preparing for a workshop was achieved using the—

- Materials
- Support
- Administration

Session 6. Presentation Techniques

Presenter: Dr. Ross Holland

The objective of this session was to enable participants to identify and discuss issues associated with making a presentation, discuss how to prepare for an oral presentation, and give examples of helpful hints toward improving presentation techniques.

The presentation highlights included—

- Features of a good presentation
- Characteristics of effective oral presentations
- What to determine before starting to preparing presentations—
 - Who your audience will be
 - What your presentation is trying to accomplish
 - What your presentation space will be
 - What your method will be—formal or informal, lecture style or interactive
- Preparing for your presentation: content
- Keeping the audience engaged

- Importance of being well prepared
- Planning for the worst
- Making the presentation: some general tips

Session 7. Workshop Facilitation: Tips for Trainers

Presenter: Dr. Ross Holland

The objective of this session was to enable participants to outline the actions and activities that help facilitate a successful workshop, and describe and discuss practical tips for workshop facilitation.

The presentation highlights included—

- Why workshops?
 - Instruction can be performance based.
 - Active participation increases learning.
 - Individualized instruction increases learning.
 - Immediate feedback increases learning.
 - Workshops allow for variety in teaching methods.
 - Workshops provide potential for positive reinforcement and motivation.
- Types of activities—
 - Mini-presentation
 - Whole group discussion
 - Small group discussion
 - Two-person discussion
 - Role-playing
 - Simulation
 - Case studies
 - Video
- How to set up the training
 - Working with small groups
 - Using teaching aids
 - Using questions
 - Leading role-playing
 - Developing facilitation skills

Session 8. Preparation for Workshop Facilitation Activities

Presenter: Dr. Ross Holland

The objective of this session was to enable participants to identify the presentation and workshop techniques appropriate to each session of the antimalarial quantification course.

The presentation highlights included—

- Review of the outline and content of the antimalarial quantification course
- Identification of presentation and workshop facilitation techniques appropriate to each session of the quantification course
- Allocation of tasks for the practice sessions

Session 9. Workshop Facilitation Practice Sessions

Presenter: Dr. Ross Holland

The objectives of this session were to enable participants to demonstrate a degree of proficiency in making a short presentation on topics related to the antimalarial quantification course and to demonstrate the application of facilitation skills to conduct a section of the antimalarial quantification course.

The presentation highlights included country group and individual practice at facilitating antimalarial quantification training sessions (see Annex 5 for country and case groupings).

Session 10. Plenary Session: TOT Summary

Presenter: Dr. Ross Holland

The objectives of this end-of-workshop session were to—

- Summarize the TOT workshop activities
- Complete the end-of-TOT self-assessment (Annex 6)
- Complete the TOT evaluation form

WORKSHOP PROCEEDINGS—PERTINENT ISSUES AND RESOLUTIONS

No.	Issue	Query	Plenary Resolution
1	Periodicity of procurement	<p>Do programs always have to make annual procurements of antimalarial medicines and commodities?</p> <p>In many countries now, procurement is not a routine matter, but rather is ad hoc because several components are out of the control of those procuring. What should countries do to overcome this challenge?</p> <p>Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM) discussions with suppliers are not completely within jurisdiction of beneficiary countries, posing a great challenge to ACT availability.</p>	<p>Programs can make plans for biannual or quarterly procurements, but they need to take into account lead times and the necessity of maintaining stock. Orders for staggered delivery may be made (that is, suppliers may agree to make deliveries at specified intervals on a single order).</p> <p>Procurement challenges are being experienced by many countries and although outside the scope of the workshop, challenges raised by participants have been noted by MSH and will be incorporated into planning for the Procurement and Supply Management Workshops being planned jointly with the Global Fund.</p>
2	Expertise for procurement	Expertise for procurement, supply, and distribution is still lacking in many countries. Expert opinions and advice on this issue are required by countries.	A provision has been made in this workshop for countries to request technical assistance from MSH for local capacity development.
3	Forecasting versus quantification	What is the difference between forecasting and quantification?	Forecasting is mainly for the future, especially when we have to project for financing, but quantification is real time and takes into consideration the details of current situations of stock, needs, and budgets.
4	Program growth	What are the implications of projecting for growth of the program?	Programs need to project for growth, since needs will increase when the ACTs are available and accepted. Conversely, the program may actually decelerate over time with increasing effectiveness of other interventions, so caution must be used to avoid overstocking.
5	Indicators for monitoring	The indicators presented in the monitoring and evaluation at plenary are not complete.	The indicators are just samples to introduce their usefulness and application. A robust compilation of general and specific indicators must be done at country level.

WORKSHOP PROCEEDINGS—CHALLENGES TO COUNTRY IMPLEMENTATION OF ANTIMALARIAL QUANTIFICATION

Comments and ensuing discussion both during plenary and group work demonstrated that some contextual factors are influential on the success or failure of country quantification processes. These practical issues relating to country implementation of quantification were consolidated from individual participant country suggestions and incorporated into this report.

Though some of the issues raised are beyond the scope of what could be addressed within the objectives, cataloging them was considered expedient to stimulate the consideration and needful intervention at the country, regional, and global level. Positive intervention is necessary or these issues could thwart the expected effects of good antimalarial quantification in individual countries and in the region. Some of the issues expressed by the participants are detailed below.

No.	Issues	Challenges	Recommendations
1	Quantification (data collection, documents, and training)	<p>Data collection by health staff from facilities is inadequate. Training is needed on data collection and collation, but the local funding agencies in many countries have not disbursed expected funds² due to delays in the periodic evaluations.</p> <p>Some major useful documents are unavailable in French for French-speaking participants.</p> <p>All the countries need training on the Quantimed software.</p>	<p>Funds for training under the GFATM should be disbursed immediately</p> <p>The GFATM must simplify the procedures of quarterly evaluation and remove bureaucratic obstacles to disbursement.</p> <p>Capacity building on record-keeping and data transmission must intensive.</p> <p>Documents must be translated into French and made available to the francophone countries.</p> <p>A training plan for everyone using the Quantimed software must be implemented.</p> <p>The software should be installed at all structures. A training plan should be developed and implemented. Follow-up and feedback must be ensured.</p>

² Funding for the implementation of malaria control activities by most countries attending the workshop is currently provided through grants from the GFATM.

No.	Issues	Challenges	Recommendations
2	Procurement	<p>Long lead times in the procurement of antimalarial medicines and commodities could reduce the efficiency in implementing the new policies and impinge on set targets.</p> <p>Central procurement of ACTs from a single, WHO-prequalified source in some cases leads to variable procurement lead time.</p> <p>ACTs are unavailable for supply.</p> <p>ACTs are not affordable for the common people.</p>	<p>Governments must facilitate the express clearing of commodities on arrival to eliminate the long lead times.</p> <p>A qualified commission is necessary to review tenders for medicines, then make awards to the most appropriate and reliable suppliers with delivery conditions backed up by legal monitoring.</p> <p>ACT manufacturers should improve availability and supply mechanisms.</p> <p>Global-level negotiation for favorable pricing of commodities is needed. Decentralized procurement is also needed.</p>
3	Finance	Country budgets are inadequate for procurement of ACTs.	<p>ACT purchases should be subsidized by the national governments as well as the GFATM.</p> <p>Countries should generate a source within their governments instead of becoming overly reliant on donors.</p>
4	Behavior change	Monotherapies are still preferred by many prescribers.	Sensitization and training of prescribers should be achieved at the country level. This session introduced Quantimed, an MSH-developed tool used to facilitate the task of quantifying large numbers of medicines and supplies, and information should be provided to the general populace.
5	Private sector	Data collection in private sector is inadequate.	<p>Program managers should institute regular collect of morbidity and stock data at all structures.</p> <p>Essential medicines programs and procurement units should ensure the regular analysis of the data and give feedback to all the stakeholders.</p>

No.	Issues	Challenges	Recommendations
6	Monitoring and evaluation	Information for program management budgeting and financing is deficient	A database should be established by strengthening the HMIS.
7	Coordination	In many countries, coordination between the National Malaria Program, the Ministry of Health, and the private sector is inadequate.	<p>A framework of consultation at the national level with periodic meetings should be put into place.</p> <p>A newsletter on the state of supply and use of medicines should be published regularly.</p>

WORKSHOP PROCEEDINGS—PLENARY RECOMMENDATIONS

Participants attending the Regional Training-of-Trainers Course in Antimalarial Quantification made the following recommendations, which have been grouped by major issues.

Advocacy

- The new policy on antimalarial treatment with ACTs still requires a lot of resources and effort to gain consensus among different relevant stakeholders. High-level and focused advocacy is a key activity within the ACT policy implementation framework and is recommended to malaria control program managers.
- Participants attending the workshop are strategically placed to influence issues related to antimalarial quantification. It is recommended that upon return from the workshop, participants should immediately sensitize relevant country authorities on issues related to ACT. Advocacy efforts should also emphasize the formation and revitalization of health structures that can be a basis for coordination and the use of technical know-how to produce the intended results.
- Some workshop participants recommend examination and revision of the pharmaceutical supply management cycle as described by MSH. Emphasizing the quantification process as a distinct component within the cycle would allow for advocacy with regard to its importance for pharmaceutical management activities.

Regional Forum

- Participants identified many cross-cutting issues in health care delivery in the countries in the region. For example, program managers face bureaucratic challenges constantly. It is recommended that a forum be established to address these issues and to maximize outcomes.
- It is also recommended that a committee or commission should be charged with the task of making recommendations on subregional concerns about matters related to or influencing antimalarial quantification.

Funding

- Most participant countries face limitations in budgetary allocations and releases. Therefore, strategic plans should be made at country level, including advocacy and adoption of better management styles to ensure the continuation of planned programs.
- It is recommended that countries present proposals related to quantification directly to USAID offices in their respective countries.

Training in Quantification Techniques

Participants reached the consensus that the quantification process is complex and requires a lot of technical expertise. At present, few of the participating countries could fully meet the requisite demands of accurate and effective quantification.

- It is recommended that being cognizant of the need to build up skills, additional workshops in quantification need to be held at national level.
- The needed resources required for the trainings at central and peripheral levels are largely unavailable, and as such, it is recommended that all the possible options be explored.
- It is recommended that training material be provided in French to French-speaking participants.

HMIS

- Participants recognized the need for an adequate database for each country, from the peripheral to the central levels, for quantification processes to be effective, accurate, and reliable. It is recommended that all countries should develop such a database at the national level.
- Advocacy, strategy development, and technical assistance must be initiated to achieve This session introduced Quantimed, an MSH-developed tool used to facilitate the task of quantifying large numbers of medicines and supplies. All relevant stakeholders must be brought on board to assist in the planning for, collection, collation, publication, and use of data at country and regional levels.
- Centralized country databases should be established. Increased staffing and training is needed at all levels of health care in the countries for data collection and collation.
- Developing tools for monitoring and evaluation of malaria control and essential medicines programs as well as training relevant personnel to carry out monitoring and evaluation are key components of assuring greater quality in program management.

Quantimed

The demonstration of Quantimed led to a request by participants for immediate access to the Quantimed tool.

Participants cautioned against unnecessary delay of the entrance of the tool into the health care systems. Among the recommendations related to the use of Quantimed are the following—

- Specific chapters on malaria, as was done for HIV, should be incorporated into the Quantimed manuals.
- The Quantimed tool user’s guide and CDs in both English and French should be made available to all the malaria control programs in countries in the region.
- Intensive training on the use of Quantimed is needed. This training should be in the form of both a regional workshop, specifically for the tool alone, as well as follow-up in-country training especially for the identified users of the Quantimed tool at country level.
- Because the Quantimed tool requires a reliable database, skilled personnel, and performing structures, it is key that advocacy and the necessary interventions commence immediately to pave the way for effective use of the tool.

Team Building

- Team-building efforts should be intensified, from the central level to the peripheral levels if the processes for quantification are to be feasible or successful.
- Other partners working to strengthen pharmaceutical management within health systems should be pulled into training activities, such as the quantification workshop, for rapid building of capacity.

Availability of ACTs

Although the objectives of the workshop did not extend to issues of supply by ACTs manufacturers, participants linked uncertain and long lead times with resultant poor supply and canceling out the hard efforts of good quantification. The short-term unavailability of ACTs due to the manufacturing cycle of *Artemisia annua* was a disturbing issue that countries in West Africa and the region must find an immediate way of redressing.

Participants recommended that there should be a forum for reengineering the supply processes for ACTs to prevent country or regional shortages from occurring after achieving quantification and placing orders.

Sensitization

Participants recommended that sensitization of the populace who would use the ACTs is a important component of quantification. This session introduced Quantimed, an MSH-developed tool used to facilitate the task of quantifying large numbers of medicines and supplies because forecasts, quantification, and procurement are based on the assumption that those vulnerable to malaria are aware of and willing to use the medicines. If sensitization is not achieved, the quantification-procurement-supply-distribution-use chain will be compromised.

Challenges of Sustainability

- Discussion of the crucial concept of quantification, and workshops such as the one just conducted, should not be a one-time occurrence.
- Country and regional partnerships need to be sensitized to the issue of sustainability to ensure the continuity, strengthening, adoption, and sustainability of quantification prerequisites across the countries of the region. It is recommended that the TOT component of the workshop be adopted in all future trainings as a valuable aid to replicate technical know-how and sustainable. This session introduced Quantimed, an MSH-developed tool used to facilitate the task of quantifying large numbers of medicines and supplies systems.
- Participating countries were urged to move forward on the lessons learned from the workshop. It is recommended that self-assessments be done three months after the workshop to see what achieved as a result of the workshop.

Technical Assistance

Participant countries expressed their specific needs for technical assistance on various issues and recommended increased technical assistance provision by MSH. These requests have been collated by country and documented in Annex 4.

CONCLUSION AND NEXT STEPS

As many countries in the West Africa prepare to change their first-line treatment policies for malaria to ACT, one of the major challenges is to ensure an uninterrupted supply of effective antimalarials for rational use in all health facilities. This need necessitates timely and accurate forecasts, correct quantification, and development of regional commodity security plans as such as those being prepared by AWARE-RH.

This Regional Training-of-Trainers Course in Antimalarial Quantification held in Accra, Ghana, August 8–12, 2005, eight countries in the West Africa subregion (Benin, Burkina Faso, Cameroon, Guinea, Ghana, Mali, Nigeria, and Senegal) a major step to achieving these objectives. Using a wide variety of teaching and learning styles, the workshop combined the technical component of antimalarial quantification with a TOT component to ensure the downward delivery of the workshop at the individual country level.

Evaluations of the regional workshop detailed in Annex 3 demonstrated a successful meeting, with huge potential for effective investment across the participating countries. Strategies should feed into the AWARE-RH's security commodity plan for the West Africa region.

Challenges to the quantification of antimalarials remain including structural, technical, managerial, and budgetary limitations across malaria control and essential procurement and supply programs in the region. They are, however, not insurmountable—applying recommendations and requesting technical assistance in a strong collaborative setting with other RBM partners will help successfully implement ACT policies in the region.

As the next step, MSH RPM Plus will develop a plan for liaison with countries in the subregion and will provide technical assistance as required for effective and efficient quantification of antimalarials, thus consolidating the processes initiated at the meeting.

In addition, opportunities for replication of best practices documented at the workshop and country level will be identified and implemented in three selected follow-up countries.

The immediate next steps identified from the Regional Training-of-Trainers Course in Antimalarial Quantification, therefore, include—

1. Translation of all developed workshop material used into French to enable francophone participants to assimilate the taught concepts and to lay the framework for replicated trainings and implementation.
2. Adaptation of the Quantimed tool for use at the national level of countries by malaria control and essential programs. Intensive discussion and planning on the dissemination of and training on Quantimed to target program managers who will be handling quantification of antimalarials. MSH will make available to countries any additional pharmaceutical assessment and management tools that have been developed technical support of developed tools.

3. Plan for and execute the data collection exercise before setting up databases in countries. Plans will be embarked upon by participant countries as soon as possible and technical support requests to MSH included in-country follow-up plans.
4. Countries that choose to carry out a mock national quantification exercise within one month of the regional workshop, that is, by the end of September, to see the process through and to highlight any deficiencies in existing data and systems within country follow-up plans. This exercise can lead to the development of concrete plans for improved systems of data management and the quantification exercise as a whole.
5. Perform Quantimed training before or incorporate it into the Pharmaceutical Management for Malaria workshop being planned for West Africa later this year by MSH.
6. MSH/RPM Plus will commit to informing all participant countries of future workshops, ensuring follow-up of all activities outlined in this section, as well as the disseminating to all relevant partners recommendations made at the regional course through this report.
7. Collaborate with AWARE-RH on the development of Commodity Security Plans for family health/reproductive health commodities including antimalarials for the region.

ANNEX 1. LIST OF PARTICIPANTS

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ANNEX 2. COURSE AGENDA

Regional Training-of-Trainers Course in Antimalarial Quantification Accra, Ghana • August 8–12, 2005

Agenda

Sunday, August 7, 2005

Arrival and registration

Monday, August 8, 2005—Quantification of Antimalarials Component (Day 1)

Time	Activity
9:00–9:15 A.M.	Official opening and welcome
9:15–9:30 A.M.	Purpose of workshop
9:30–10:00 This session introduced Quantimed, an MSH-developed tool used to facilitate the task of quantifying complicated regimens of medicines and supplies	Session 0. Course Overview and Objectives
10:00–10:15 a.m.	Tea break
10:15–11:00 a.m.	Session 1. Global and Regional Malaria Context
11:00–11:30 a.m.	Session 2. Introduction to Quantification
11:30 a.m. –12:15 p.m.	Activity
12:15–1:15 p.m.	Lunch
1:15–2:15 p.m.	Session 3. Methods for Estimation of Antimalarial Needs
2:15–3:15 p.m.	Activity
3:15–3:30 p.m.	Tea break
3:30–4:30 p.m.	Session 4: Data Needed for Quantification
4:30–5:00 p.m.	Activity

Tuesday, August 9, 2005—Quantification of Antimalarials Component (Day 2)

Time	Activity
9:00–9:30 A.M.	Recap of previous day’s work
9:30–10:30 A.M.	Session 5. Quantifying of Antimalarials and Assumptions
10:30–10:45 A.M.	Tea break
10:45–11:45 A.M.	Session 6. Practical Applications of Quantification: Calculating Need
11:30 A.M. –1:00 P.M.	Activity
1:00–2:00 P.M.	Lunch
2:00–2:30 P.M.	Plenary discussion
2:30–3:30 P.M.	Session 7. Estimating Costs of Procurement
3:30–3:45 P.M.	Tea break
3:45–4:30 P.M.	Activity
4:30–5:00 P.M.	Plenary discussion

Wednesday, August 10, 2005—Quantification of Antimalarials Component (Day 3)

Time	Activity
9:00–10:00 A.M.	Session 8. Monitoring and Evaluation
10:00–10:15 A.M.	Tea break
10:15–11:00 A.M.	Session 9. Quantimed and Other Tools for Quantification
11:00 A.M. –1:00 P.M.	Quantimed demonstration
1:00–2:00 P.M.	Lunch
2:00–4:00 P.M.	Plenary discussion

Thursday, August 11, 2005—Training of Trainers Component (Day 1)

Time	Activity
9:00–9:15 a.m.	Session 1. Introduction to Training of Trainers
9:15–10:30 a.m.	Session 2. Adult Learning
10:30–10:45 a.m.	Tea break
10:45–11:30 a.m.	Session 3. Teaching and Learning Methods
11:30 a.m. –12:00 p.m.	Session 4. Role of the Teacher
12:00–1:00 p.m.	Lunch
1:00–1:30 p.m.	Session 5. Preliminary Course Preparation
1:30–2:45 p.m.	Session 6. Presentation Techniques
2:45–3:00 p.m.	Tea break
3:00–4:15 p.m.	Session 7. Workshop Facilitation: Tips for Trainers
4:15–5:00 p.m.	Session 8. Preparation for Workshop Facilitation Activities

Friday, August 12, 2005—Training of Trainers Component (Day 2)

Time	Activity
9:00–10:30 a.m.	Session 9. Workshop Facilitation Practice Session
10:30–10:45 a.m.	Tea break
10:45 a.m. –12:15 p.m.	Workshop Facilitation Activity (<i>Session 9, continued</i>)
12:15–1:15 p.m.	Lunch
1:15–2:45 p.m.	Workshop Facilitation Activity (<i>Session 9, continued</i>)
2:45–3:00 p.m.	Tea break
3:00–3:45 p.m.	Session 10. Plenary Session: TOT Summary
3:45–4:15 p.m.	Closing Session

ANNEX 3. WORKSHOP EVALUATION

Quantitative

Table 3a. Consolidated Evaluation of QAM Component of Workshop (Days 1–3)

No.	Question	Scores (1–5 Scale)					Total No. of Respondents	Weighted Total	Weighted Average
		5	4	3	2	1			
1	How would you rate your overall satisfaction with the course?	3	14	4	—	—	21	83	3.95
2	How effective was the overall format of the sessions, case studies, exercises, and discussions?	4	11	6	—	—	21	82	3.91
3	How would you rate the materials for this course (handouts, slides, supplementary materials)?	2	12	6	1	—	21	78	3.71

Table 3b. Evaluations of Individual QAM Sessions (Sessions 0–9)

Session No.	Session Title	Scores (1–5 Scale)					Total No. of Respondents	Weighted Total	Weighted Average
		5	4	3	2	1			
0	Course Overview and Objectives	5	15	3	—	—	21	88	4.19
1	Global and Regional Malaria Context	2	16	2	1	—	21	82	3.91
2	Introduction to Quantification	3	15	3	—	—	21	84	4.00
3	Methods for Estimation of Antimalarial Needs	7	9	5	—	—	21	86	4.10
4	Data Needed for Quantification	6	11	3	1	—	21	85	4.05
5	Quantifying of Antimalarials and Assumptions	4	14	3	—	—	21	85	4.05
6	Practical Applications of Quantification: Calculating Need	4	10	5	1	1	21	78	3.71
7	Estimating Costs of Procurement	3	9	8	1	—	21	77	3.67
8	Monitoring and Evaluation	8	12	1	—	—	21	91	4.33
9	Quantimed and other Tools for Quantification	3	13	4	1	—	21	81	3.86
—	Quantimed demonstration	1	11	7	2	—	21	74	3.52

Table 3c. Consolidated Evaluation of TOT Component of Workshop (Days 4–5)

No.	Question	Scores (1–5 Scale)					Total No. of Respondents	Weighted Total	Weighted Average
		5	4	3	2	1			
1	How would you rate your overall satisfaction with the course?	5	13	5	2	—	25	96	3.84
2	How effective was the overall format of the sessions, case studies, exercises, and discussions?	5	8	10	2	—	25	91	3.64
3	How would you rate the materials for this course (handouts, slides, supplementary materials)?	4	11	7	3	—	25	91	3.64

3d. Evaluations of Individual TOT Sessions (Sessions 1–10)

Session No.	Session Title	Scores (1–5 Scale)					Total No. of Respondents	Weighted Total	Weighted Average
		5	4	3	2	1			
1	Introduction to Training of Trainers	4	12	7	2	—	25	93	3.72
2	Adult Learning	4	11	5	2	1	23	84	3.65
3	Teaching and Learning Methods	8	11	3	3	—	25	99	3.96
4	Role of Teacher	5	14	3	3	—	25	96	3.84
5	Preliminary Course Preparation	7	10	5	3	—	25	96	3.84
6	Presentation Techniques	1	18	4	—	—	23	89	3.87
7	Workshop Facilitation: Tips for Trainers	3	10	8	3	—	24	85	3.54
8	Preparation for Workshop Facilitation Activities	2	12	8	2	—	24	86	3.58
9	Workshop Facilitation Practice Session	5	12	6	1	—	24	93	3.88
10	Plenary Session: TOT Summary	3	14	5	—	—	22	86	3.91

Qualitative

3e. Consolidated Comments on QAM Sessions

How would you rate your overall satisfaction with the course?

- Very good and satisfactory course
- Very good organization
- New concepts have been learnt: the objectives of the workshop corresponded with needs
- Very enjoyable workshop in a good environment: a lot of effort was put in for the participants

How effective was the overall format of the sessions, case studies, exercises, and discussions?

- The presentations were well delivered and contents relevant: facilitators performed very well
- Very good format and style of presentation
- The discussions and exercises were very practical, current, and insightful
- There were few hitches with the English/French interpretation: the speed of the interpreters played a role in enhancing the quality of the presentations

How would you rate the materials for this course (handouts, slides, supplementary materials)?

- The handouts were very useful, sufficient, and well prepared
- The handouts were very good, and given out in good time
- The color bands used to separate the sessions made referencing much easier
- The slides, although very plain, contained the essentials

How could this course be improved?

- Some exercises were not well mastered by the francophone because of language barriers—the documents should have been translated into French and there should be better English/French interpretation as well as French-speaking presenters in a course of this nature
- The demonstration on Quantimed was too fast—more detailed sessions are necessary
- RPM Plus should organize a regional training program on Quantimed alone
- Training on the Quantimed software should be organized on a countrywide basis for at least one week each after this regional workshop.
- It might be important to consider reviewing the present methods that countries are using to appreciate the differences in the methods of quantification—methods should be applied to country situations.
- Improve animation in presentation slides
- (There should be) more hands-on exercises
- (There should be) better seating arrangements—the room was too small
- (There should be a) longer duration for the workshop

Are there any additional topics you would like to see covered?

- How to integrate the private sector into the quantification activities
- Development of a country-specific quantification of antimalarials document should be a specific outcome indicator
- Quantification of insecticide-treated nets

Any other comments?

- The course has enlightened the participants on the importance of quantification based on reliable data collection, especially with expensive medicines like ACTs.
- The skills gained in the technical aspects and the TOT will be very useful for countries.
- There is need for French translations of the documents and other materials.
- The challenge of sustainability and moving the process forward in countries needs to be addressed.
- Country follow-up by MSH will be necessary.
- We are really happy with the course: it was well planned and executed in a good environment.

3f. Consolidated Comments on TOT Sessions

How would you rate your overall satisfaction with the course?

- The workshop was well planned.
- The course will make it easier to replicate the training for antimalarial quantification in-country.
- We had some problems following the interpretation of the sessions into French.
- Very good course in spite of limitations with translation, microphone, and allowances.

How effective was the overall format of the sessions, case studies, exercises, and discussions?

- The format was quite impressive and well organized.
- The sessions were well structured and coherent, and they flowed together.
- The facilitators were devoted to the training.
- The practice helped to reinforce what had been learned in the workshop and assisted in replicating them at country level.
- The rate of delivery of the sessions was sometimes faster than the interpretation.

How would you rate the materials for this course (handouts, slides, supplementary materials)?

- The materials were good and available for all participants.
- The quality of the materials given were of the highest quality.
- The materials will be invaluable in training adult learners generally and in quantification.

- Efforts were made to translate the documents needed for the TOT component into French.
- I commend the diligence of those who put the course together.

Comments

To what extent has the course added to your knowledge of the common barriers to learning and how to overcome them?

- The course has added to the knowledge of common barriers to learning. A lot of the information is quite new. The course has been an eye opener to many factors affecting adult learning which had been taken for granted.
- I have learned about the influence of the attitude of the trainer on learning.

How has this course helped you understand the characteristics of the adult learner?

- (It helped to understand) the differences in background, psychological frame, etc.
- I learned that the adult learner absorbs information within the context of experience, unlike the child learner.

How well has this course demonstrated the range of teaching and learning methods appropriate to teaching the Antimalarial Quantification Course?

- We now know how to apply brainstorming, group work, discussion, and other participatory methods.
- The range of teaching and learning methods demonstrated is very appropriate to the training in antimalarial medicine quantification.
- In retrospect, some of the initial assessments of the QAM component were premature, as my estimates of the course including Quantimed are now modified after the TOT.

How could this TOT course be improved? Are there any additional topics you would like to see covered?

- The documents and slides should be available in French.
- There should be more time allocated for role playing.
- Other aspects of preparing for a workshop should be incorporated, such as budgeting, logistics, etc.
- More time may be devoted to amplifying the expected characteristics of the adult learner.
- Audiovisuals should be provided in addition to flip charts for role-playing.
- The course provided adequate training materials—one can hardly add any more.
- The TOT should always be incorporated as an important component of workshops.

Any other comments?

- This is a great workshop. It was worth it all, and we appreciate the efforts.

- The TOT practice on the last day amplifies what we have to do back home. It was quite innovative and revealing.
- The information gained is very well appreciated and will be valuable in my work.
- The venue of meetings must be cross-checked before financial commitments are made.
- The documents should be translated into French immediately and sent to the countries.
- Francophone trainers are needed to facilitate the understanding of francophone participants.
- There should be plans for in-country sessions.

3g. Feedback on Quantimed

The Quantimed software was pivotal in fostering the practical application of the quantification concepts learned in this workshop and participants clamored for further training and its immediate availability. Therefore, the usefulness, limitations, and recommendations of Quantimed as a tool for quantification was evaluated separately. The findings are as follows.

- Usefulness—
 - Quantimed has been shown to be a versatile, practical, and extremely useful tool for a meaningful quantification exercise for medicine needs and other medical consumables, especially at national and regional levels.
 - Quantimed will help to simplify the large databases that are required for the quantification process and is in fact indispensable for such a challenge.
 - It is useful for the projecting and then the quantification of the entire needs of the pharmaceutical sector by region/district and by country.
 - It has a potential use in monitoring pharmaceutical management systems especially with the use of ABC and VEN analysis to adjust medicines to be purchased and to determine quantities and budgets.
 - It is user-friendly software.
- Limitations—
 - The allocated time for the Quantimed demonstration was not sufficient for the participants to navigate through the process and fully understand the workings.
 - The set-up of Quantimed for practical use can initially be challenging and quite technical, especially when it is performed by the extended program management staff who may not be as computer literate.
 - Quantimed's use is completely dependent on accurate data from all levels of the health care system (i.e., a reliable HMIS). In local systems, critical consideration must be given to this factor as it can be a major barrier to the quantification exercise.

- Not all the parameters concerning malaria treatment have been taken into consideration in the software, such as treatment of pregnant women who have malaria.
- Quantimed was not demonstrated to be useful for other public health conditions apart from malaria and HIV. It might be necessary to apply its use to other conditions such as hypertension or malnutrition that are of major concern to the health professional and policy makers.
- The software (and accompanying manuals) were not made available for countries to take away to use.
- The French version of the Quantimed tool is not yet available.
- Recommendations for Quantimed—
 - Quantimed is a highly desired aid to quantification, and it is recommended that more training sessions be given to enhance better understanding, and skill for its use to better the health sector.
 - The software should be finalized and put at the disposal of countries immediately.
 - The French version of the tool should also be completed for distribution with the already available French guide to francophone countries.
 - It is necessary to debug the software as some bugs are still interfering with the flow of work when using it.
 - Exposure to training and actual use of Quantimed is still needed for a better assessment of its strengths and weaknesses.
 - Technical support to countries will be required to commence the training and retraining on and the accurate use of Quantimed.
 - It is useful to start planning on the introduction of Quantimed in a simplified form for the lower levels of health care. The stimulation of strong data systems that will support the health sector in general and the Quantimed tool in particular should be put in place.
 - Financial support may also be needed to procure and install equipment and to provide other materials needed to support the process of quantification.
 - Advocacy to policy makers and higher hierarchies of health care delivery systems is essential for better acceptability and adoption of the quantification tool.
 - Training for Quantimed use should be organized at regional level, and then for at least two weeks in each country.

3h. Evaluation/Next Steps by Regional Workshop Facilitators

1. The issue of language barriers in the region has highlighted the importance of appreciating the level of competency of participating countries in English and making available workshop material in French even when the participants from French-speaking countries understand English at an acceptable level.

The documents to be made available for subsequent quantification workshops include presentations (slides) and exercises, the Facilitator's Guide, the Quantification Workbook, and publications such as *Managing Drug Supply* and Quantimed manuals.

2. MSH should address the demand by countries for training in Quantimed.
3. The Regional Training-of-Trainers in Antimalarial Quantification for East Africa will benefit from lessons learned from the West Africa course.
 - The same participant mix achieved during the West Africa course will be applied to the East Africa course because it is strategic for country stakeholder acceptance of quantification concepts.
 - The same styles of presentations and exercises will be adopted for subsequent quantification workshops for antimalarials.
4. The need for management training for malaria program managers at countries was raised as a necessary step to encourage the effectiveness and sustainability of trainings being planned and conducted across the region.

ANNEX 4. COUNTRY REPORTS

4a. Country Reports on Situation of Acts Quantification

During the workshop, countries were asked to—

1. Identify symptoms of poor quantification and highlight the three most important symptoms in their country context
2. Think about the situation in their respective countries with respect to the antimalarial medicine supply system and relate any of the symptoms of poor quantification to their country antimalarial drug supply system
3. Mention what could be done to prevent the three outcomes of poor quantification listed

All countries identified the following symptoms of poor quantification—

- Chronic and widespread shortages
- Inequity of supply
- Inadequate cost-effectiveness
- Irrational adjustment to budgetary constraints
- Irrational, ineffective prescribing
- Suppression or distortion of demand

Symptoms that constituted the greatest issues in countries, as well as suggestions for intervention in the different countries, are shown below.

1. BENIN

The three most important symptoms are—

- Inequity of distribution due to lack of data to estimate needs as well as inadequate monitoring of entries and releases at the peripheral level
- Budgeting constraints: lack of resources and poor budgetary allocations
- Irrational prescriptions

Suggestions for prevention of these symptoms are—

- Improve collection and management of data
- Improve monitoring and supervision
- Advocate for better funding, and improve coordination of donor funding
- Train and closely supervise personnel
- Ensure the availability of good quality medicines
- Create awareness in the general public

2. BURKINA FASO

The three most important symptoms are—

- Shortage of ACTs—public procurement has not yet started
- Inadequate cost-effectiveness—ACTs are still expensive
- Irrational prescriptions of ACTs

Suggestions for prevention of these symptoms are—

- Obtain planning for orders from the Central Procurement Board
- Acquire subsidies for ACTs
- Train prescribers and managers in drug management

3. CAMEROON

The three most important symptoms are—

- Chronic and widespread shortages
- Inequity of supply
- Irrational, ineffective prescribing

Suggestions for prevention of these symptoms are—

- Train staff in proper quantification based on adequate data
- Develop and train staff in standard treatment protocols
- Mobilize resources (finances, materials, equipment, and human resources)
- Implement a monitoring and evaluation system for antimalarial medicines

4. GHANA

The three most important symptoms are—

- System management—Ghana has three independent supply and procurement systems—
 - Government facilities
 - Mission and quasi-government facilities
 - Private sector
- Large surpluses of chloroquine at Central Medical Stores due to the change in antimalarial drug policy
- Noncompliance to national and institutional procurement policies

Suggestions for prevention of these symptoms are—

- Establish proper coordination among the three main procurement systems at all levels through a national committee
- Develop a good database and proper inventory control systems in all sectors
- Complete a national and regional mop-up of the surpluses
- Strengthen information systems and training education for compliance

5. GUINEA

The three most important symptoms are—

- Chronic and widespread shortages
- Inequity of supply
- Irrational and inefficient prescription of antimalarials

Suggestions for prevention of these symptoms are—

- Train personnel
- Provide equipment and tools
- Ensure a better budgetary allocation
- Monitor and evaluate

6. MALI

The three most important symptoms are—

- Weak diagnosis and resulting irrational prescription of antimalarial medicines
- Bloated estimation of needs for fear of shortage—thus the peripheral levels are overstocked, and the intermediate and central levels have shortages
- Budgetary constraints on quantity of medicines to be purchased

Suggestions for prevention of these symptoms are—

- Train personnel on prescription and rational use of medicines, quantification, and dispensing practices
- Encourage greater involvement of funding partners as well as the government

7. NIGERIA

The three most important symptoms are—

- Chronic widespread shortages
- Inequity of supply
- Irrational, ineffective prescribing

Suggestions for prevention of these symptoms are—

- Improve the health management information system
- Ensure good quantification
- Mobilize resources
- Institute a comprehensive management support system
- Introduce the pull system
- Train and retrain health personnel in rational prescribing
- Institutionalize the standard treatment guidelines
- Ensure continuous, uninterrupted supply of medicines

8. SENEGAL

The two most important symptoms are—

- Shortage of medicines and supplies
- Stocking difficulties—artificial shortage at the district levels, chloroquine still not withdrawn

Suggestions for prevention of these symptoms are—

- Improve coordination for better quantification
- Develop a plan for withdrawal of chloroquine
- Strengthen the stocking capacity of the national health system
- Train on rational prescribing

4b. Country Reports on Status of Country Data

BENIN	
A. FOR THE CONSUMPTION METHOD	
A1. DATA AVAILABLE <ul style="list-style-type: none"> • Biannual product by product consumption data • Stock-out periods • Delivery deadlines • Population growth rates • Number of malaria cases by age groups • Number of women treated 	A2. DATA NOT AVAILABLE <ul style="list-style-type: none"> • Lead times
A3. LIMITATIONS OF AVAILABLE DATA (not provided)	
A4. STEPS TO BE TAKEN TO IMPROVE THE AVAILABLE DATA <ul style="list-style-type: none"> • Put in place tools for compiling and supervising consumption records • Establish a data collection system at the health centers on consumption, and forward these data to a central structure • Prepare procurement plans 	
B. FOR THE MORBIDITY METHOD	
B1. DATA AVAILABLE <ul style="list-style-type: none"> • Population data per village • Population data by age groups and sex • Growth rate • Attendance by age and sex • Frequency of uncomplicated malaria by age groups and sex • Frequency of severe malaria by age group and sex • Population at risk 	B2. DATA NOT AVAILABLE <ul style="list-style-type: none"> • Incidence, prevalence, and percentage of children under the age of five suffering from malaria • Percentage of pregnant women with malaria
B3. LIMITATIONS OF AVAILABLE DATA (not provided)	
B4. STEPS TO BE TAKEN TO IMPROVE THE AVAILABLE DATA <ul style="list-style-type: none"> • Strengthen supervision, training, and feedback to improve data collection • Strengthen the sentinel sites 	
C. FOR THE ADJUSTED CONSUMPTION METHOD	
C1. DATA AVAILABLE <ul style="list-style-type: none"> • Consumption by the health facility over six months • Number of health facilities • Lead times • Attendance data from the health facilities • Morbidity population data by age • Product shelf life 	C2. DATA NOT AVAILABLE <ul style="list-style-type: none"> • Level of services provided
C3. LIMITATIONS OF AVAILABLE DATA (not provided)	
C4. STEPS TO BE TAKEN TO IMPROVE THE AVAILABLE DATA <ul style="list-style-type: none"> • Establish a system of data collection and compilation • Ensure feedback 	

BURKINA FASO	
A. FOR THE CONSUMPTION METHOD	
A1. DATA AVAILABLE <ul style="list-style-type: none"> • Inventory • Supply pipelines • Unit costs • Delivery deadlines • Losses 	A2. DATA NOT AVAILABLE <ul style="list-style-type: none"> • Private sector data
A3. LIMITATIONS OF AVAILABLE DATA (not provided)	
A4. STEPS TO BE TAKEN TO IMPROVE THE AVAILABLE DATA <ul style="list-style-type: none"> • Improve monitoring of delivery deadlines and of drug losses; it is still inadequate and needs to be strengthened 	
B. FOR THE MORBIDITY METHOD	
B1. DATA AVAILABLE <ul style="list-style-type: none"> • Population data • Prevalence of uncomplicated and severe malaria • Attendance rate • Data on women of child-bearing age • Prenatal attendance data 	B2. DATA NOT AVAILABLE <ul style="list-style-type: none"> • Prevalence of simple and acute malaria by age group
B3. LIMITATIONS OF AVAILABLE DATA <ul style="list-style-type: none"> • Reliability of data • The population of prevalence rate is divided into just two groups: population under the age of five and population over the age of five 	
B4. STEPS TO BE TAKEN TO IMPROVE THE AVAILABLE DATA (not provided)	
C. FOR THE ADJUSTED CONSUMPTION METHOD	
C1. DATA AVAILABLE (not provided)	C2. DATA NOT AVAILABLE (not provided)
C3. LIMITATIONS OF AVAILABLE DATA (not provided)	
C4. STEPS TO BE TAKEN TO IMPROVE THE AVAILABLE DATA (not provided)	
CAMEROON	
A. FOR THE CONSUMPTION METHOD	
A1. DATA AVAILABLE <ul style="list-style-type: none"> • Inventory record of consumption • Supplier lead times • Estimation of wastage • Procurement lead times • Shelf life of medicines • Estimation of time out of stock • Records of existing pipelines 	A2. DATA NOT AVAILABLE <ul style="list-style-type: none"> • Complete list of all pipelines • Buffer stock—not reported for some facilities • Stock-outs—seen as poor management so not always reported
A3. LIMITATIONS OF AVAILABLE DATA <ul style="list-style-type: none"> • Some data are not reliable. • Data are not available for some of the facilities • Variable pipelines are not keeping exact records • Buffer stock concept is not well understood 	

A4. STEPS TO BE TAKEN TO IMPROVE THE AVAILABLE DATA	
<ul style="list-style-type: none"> • Divide the central stock into two—one record for public facilities data, which are known, and another record for private facilities data, which are not consistent 	
B. FOR THE MORBIDITY METHOD	
B1. DATA AVAILABLE	B2. DATA NOT AVAILABLE
<ul style="list-style-type: none"> • Estimated population • Population growth rate • Population of children under the age of five • Estimated population of pregnant women • Rural-urban population distribution • Morbidity due to malaria • Mortality in children under the age of five • Patient attendance at health facilities • Standard treatment guidelines • Treatment failures 	<ul style="list-style-type: none"> • Complicated malaria as percentage of the population • Estimations of percentage changes in attendance • Population by age group—not available from most of the regions
B3. LIMITATIONS OF AVAILABLE DATA	
<ul style="list-style-type: none"> • Most of the population is projected on the basis of numbers from census of 1980s • Standard treatment guidelines are not applied universally 	
B4. STEPS TO BE TAKEN TO IMPROVE THE AVAILABLE DATA	
<ul style="list-style-type: none"> • Conduct a current demographic and health survey. • Review patient attendance at health facilities by age • Establish standard treatment guidelines for malaria in all regions 	
C. FOR THE ADJUSTED CONSUMPTION METHOD	
C1. DATA AVAILABLE	C2. DATA NOT AVAILABLE
<ul style="list-style-type: none"> • Number of local health facilities by category • Estimation of local user population broken down by age (available in some regions) • Procurement lead time • Shelf life of medicines 	<ul style="list-style-type: none"> • Data from private hospitals and religious health services are not easily obtained
C3. LIMITATIONS OF AVAILABLE DATA	
<ul style="list-style-type: none"> • Reliability of data is doubtful given the fact that, for many years, only a few of these regions have carried out a census 	
C4. STEPS TO BE TAKEN TO IMPROVE THE AVAILABLE DATA	
<ul style="list-style-type: none"> • Involve all health providers (public and private) in the quantification process, and make them understand the importance of sending accurate data regularly 	
GUINEA	
A. FOR THE CONSUMPTION METHOD	
A1. DATA AVAILABLE	A2. DATA NOT AVAILABLE
<ul style="list-style-type: none"> • Consumption and inventory records • Stock-out periods • Lead times 	<ul style="list-style-type: none"> • Private sector data
A3. LIMITATIONS OF AVAILABLE DATA	
<ul style="list-style-type: none"> • Data are incomplete • Data are not current • Available data are not reliable 	
A4. STEPS TO BE TAKEN TO IMPROVE THE AVAILABLE DATA	
<ul style="list-style-type: none"> • Ensure that the data collection system comes with training and equipment to facilitate the work • Carry out advocacy and sensitization projects and strive for continuous communication 	

B. FOR THE MORBIDITY METHOD	
B1. DATA AVAILABLE <ul style="list-style-type: none"> • Population data by age groups • Rate of use of services • Growth rate • Simple and complicated malaria data • Data on pregnant women 	B2. DATA NOT AVAILABLE <ul style="list-style-type: none"> • Incidence, prevalence, and percentage of children under the age of five suffering from malaria • Percentage of pregnant women with malaria • Private sector data
B3. LIMITATIONS OF AVAILABLE DATA <ul style="list-style-type: none"> • Data are old, incomplete, and unreliable 	
B4. STEPS TO BE TAKEN TO IMPROVE THE AVAILABLE DATA <ul style="list-style-type: none"> • Strengthen supervision, training, and feedback to improve data collection • Strengthen the sentinel sites 	
C. FOR THE ADJUSTED CONSUMPTION METHOD	
C1. DATA AVAILABLE <ul style="list-style-type: none"> • Reference structures 	C2. DATA NOT AVAILABLE <ul style="list-style-type: none"> • Private sector data
GHANA	
A. FOR THE CONSUMPTION METHOD	
A1. DATA AVAILABLE <ul style="list-style-type: none"> • Losses and adjustments • Quantities issued • Stock-out periods • Stock on hand • Stock on order 	A2. DATA NOT AVAILABLE <ul style="list-style-type: none"> • Feedback from the regional medical stores ends up in the office of the chief pharmacist
A3. LIMITATIONS OF AVAILABLE DATA <ul style="list-style-type: none"> • Design of reporting forms needs to be reviewed 	
A4. STEPS TO BE TAKEN TO IMPROVE THE AVAILABLE DATA <ul style="list-style-type: none"> • Send feedback to each region to strengthen their performance. 	
B. FOR THE MORBIDITY METHOD	
B1. DATA AVAILABLE <ul style="list-style-type: none"> • Surveys have been conducted by the Malaria Control Program and contain a lot of information • The Center for Health Information Management has all the morbidity data from the regional health administrators (e.g., outpatient department attendances, total attendances due to malaria and morbidity) 	B2. DATA NOT AVAILABLE (not provided)
B3. LIMITATIONS OF AVAILABLE DATA <ul style="list-style-type: none"> • Data are often submitted late 	
B4. STEPS TO BE TAKEN TO IMPROVE THE AVAILABLE DATA <ul style="list-style-type: none"> • Make data forms simple and user friendly 	
C. FOR THE ADJUSTED CONSUMPTION METHOD	
C1. DATA AVAILABLE (not provided)	C2. DATA NOT AVAILABLE (not provided)
C3. LIMITATIONS OF AVAILABLE DATA (not provided)	
C4. STEPS TO BE TAKEN TO IMPROVE THE AVAILABLE DATA (not provided)	

MALI	
A. FOR THE CONSUMPTION METHOD	
A1. DATA AVAILABLE <ul style="list-style-type: none"> Forecasts of purchases for the public sector and local areas are based on sales from the stores, facilities, and hospitals 	A2. DATA NOT AVAILABLE <ul style="list-style-type: none"> Data on actual use by the patients at the facilities are unavailable Private sector data are not available
A3. LIMITATIONS OF AVAILABLE DATA <ul style="list-style-type: none"> Sales at stores do not constitute real consumption 	
A4. STEPS TO BE TAKEN TO IMPROVE THE AVAILABLE DATA <ul style="list-style-type: none"> Follow up all the real consumptions by patients as real data Note stock-out periods. 	
B. FOR THE MORBIDITY METHOD	
B1. DATA AVAILABLE <ul style="list-style-type: none"> Population estimates of 2004 Growth rate Population distribution by age group (pregnant women, children under the age of five, etc.) Incidence of malaria Service utilization rate (public and private) Population at risk with regard to malaria epidemics 	B2. DATA NOT AVAILABLE <ul style="list-style-type: none"> There are no data on severe and complicated malaria There are no data from the private sector
B3. LIMITATIONS OF AVAILABLE DATA <ul style="list-style-type: none"> Self-medication and consultation of traditional healers 	
B4. STEPS TO BE TAKEN TO IMPROVE THE AVAILABLE DATA <ul style="list-style-type: none"> Make the sentinel sites functional to obtain data on severe and complicated malaria 	
C. FOR THE ADJUSTED CONSUMPTION METHOD	
C1. DATA AVAILABLE <ul style="list-style-type: none"> Local data are incomplete, so adjustments can only be made at the regional and national levels 	C2. DATA NOT AVAILABLE (not provided)
NIGERIA	
A. FOR THE CONSUMPTION METHOD	
A1. DATA AVAILABLE <ul style="list-style-type: none"> Supplier lead time (usually variable due to the global shortage of ACTs) Estimation of buffer stock Estimation of wastage (losses due to expiry, pilferage, and other causes) Projected unit pharmaceutical costs Procurement lead time Shelf life of medicines 	A2. DATA NOT AVAILABLE <ul style="list-style-type: none"> Inventory records of consumption Estimation of time out of stock (only available during survey) Records of existing pipelines
A3. LIMITATIONS OF AVAILABLE DATA (not provided)	
A4. STEPS TO BE TAKEN TO IMPROVE THE AVAILABLE DATA <ul style="list-style-type: none"> Build capacity on record-keeping Provide feedback to lower levels to encourage continuous transmission of data Ensure data are continuous and build capacity to report out of stock Build capacity Improve partnership 	

B. FOR THE MORBIDITY METHOD	
<p>B1. DATA AVAILABLE</p> <ul style="list-style-type: none"> • Population according to age groups • Patient attendances at health facilities • Projected incidence of uncomplicated malaria, severe malaria, and malaria among pregnant women • Standard treatment guidelines • Percentage treatment failures to first-line drug • Projected pharmaceutical costs • Procurement lead time • Shelf life of medicines • Population by age group available • Standard treatment guidelines available • Percentage of treatment failure to first- and second-line medicines available • Projected medicine costs available 	<p>B2. DATA NOT AVAILABLE</p> <ul style="list-style-type: none"> • Estimated percentage change in attendance • Incidence of uncomplicated malaria, severe malaria
<p>B3. LIMITATIONS OF AVAILABLE DATA</p> <ul style="list-style-type: none"> • Incidence of uncomplicated malaria is not available—prevalence is being used • Patient attendance at health facilities data are facility based • Procurement lead time is variable and keeps changing because of the global ACT shortage 	
<p>B4. STEPS TO BE TAKEN TO IMPROVE THE AVAILABLE DATA (not provided)</p>	
SENEGAL	
A. FOR THE CONSUMPTION METHOD	
<p>A1. DATA AVAILABLE</p> <ul style="list-style-type: none"> • Consumption data • Morbidity data 	<p>A2. DATA NOT AVAILABLE</p> <ul style="list-style-type: none"> • Stock level at the districts • Consumption rates
<p>A3. LIMITATIONS OF AVAILABLE DATA</p> <ul style="list-style-type: none"> • Most health facilities have no standardized methods for data collection. • The private sectors are not well trained for data collection. 	
<p>A4. STEPS TO BE TAKEN TO IMPROVE THE AVAILABLE DATA</p> <ul style="list-style-type: none"> • Encourage better coordination of actors involved in stock management. • Install Quantimed software from the health facilities, up to the central level. 	
B. FOR THE MORBIDITY METHOD	
<p>B1. DATA AVAILABLE</p> <ul style="list-style-type: none"> • Number of cases of simple and severe malaria per district • Pregnant women covered with intermittent preventive treatment • Fatal cases • Attendance at health facilities 	<p>B2. DATA NOT AVAILABLE (not provided)</p>
<p>B3. LIMITATIONS OF AVAILABLE DATA</p> <ul style="list-style-type: none"> • RBM software to synchronize data is not available • Health facilities and hospitals lack trained staff 	
<p>B4. STEPS TO BE TAKEN TO IMPROVE THE AVAILABLE DATA</p> <ul style="list-style-type: none"> • Train staff • Coordinate stakeholders • Install software 	

C. FOR THE ADJUSTED CONSUMPTION METHOD	
C1. DATA AVAILABLE <ul style="list-style-type: none"> Monthly consumption from the Central Medical Stores 	C2. DATA NOT AVAILABLE <ul style="list-style-type: none"> Data from the districts Data from the private sector
C3. LIMITATIONS OF AVAILABLE DATA <ul style="list-style-type: none"> There are no data from private distributors Data are scarce from the health districts 	
C4. STEPS TO BE TAKEN TO IMPROVE THE AVAILABLE DATA <ul style="list-style-type: none"> Make available software for the management of day-to-day data at the Central Medical Store and the Regional Medical Stores Coordinate with private distributors to ensure better aggregation of data from the private sector as well as from the districts Share information among players 	

4c. Country-Specific Technical Assistance Requests for Quantification and Related Issues

COUNTRY 1. BENIN

Request	Challenges	Technical Assistance Required	Expected Time of Commencement
1	Creating a good supply pipeline through good quantification to avoid stock-outs	Training facility managers at all levels	November 2005
2	Involvement of all stakeholders in antimalarial medicine policy change	Advocacy support	October 2005
3	Monitoring of the consumption of medicines in health facilities	Institution of monitoring tools	October to November 2005
4	Pharmacovigilance for ACTs	Institution of pharmacovigilance	October to November 2005
5	Scaling up of ACT distribution and use	Site evaluations Scaled up quantification	October to November 2005
6	Ensuring continuous availability of ACTs	Advocacy for resource mobilization Sensitization of the donor community	October to November 2005

COUNTRY 2. BURKINA FASO

Request	Challenges	Technical Assistance Required	Expected Time of Commencement
1	Collecting data	Improvement of data collection and flow	January 2006
2	Using Quantimed	In-country training on Quantimed	January 2006

COUNTRY 3. CAMEROON

Request	Challenges	Technical Assistance Required	Expected Time of Commencement
1	Establishing antimalarial quantification specific to Cameroon	Technical assistance to adjust methods given the present practices in the country	January 2006
2	Using Quantimed for quantification	In-country training in Quantimed use	As soon as Quantimed is released for use
3	Monitoring and evaluation	Elaboration of morbidity and consumption indicator data	December 2005
4	Funding	Funding for in-country training of trainers for quantification	January 2006

COUNTRY 4. GHANA

Request	Challenges	Technical Assistance Required	Expected Time of Commencement
1	Phasing out of chloroquine use	Facilitation of the smooth phasing out of chloroquine	September 2005
2	Improving inventory management	<p>Review of the medicine inventory system to improve management of ACTs in peripheral health facilities</p> <p>Development of strategies to prevent leakage to private sector</p> <p>Development and review of distribution systems to remove expired stock</p> <p>Development and review of systems to monitor the efficiency of distribution systems and redistribution mechanisms</p>	September 2005
3	Ensuring the success of the new antimalarial medicine policy in the private sector	Support to ensure adherence to the new policy, especially in the private health sector	September 2005

COUNTRY 5. GUINEA

Request	Challenges	Technical Assistance Required	Expected Time of Commencement
1	Creating a database	Technical and financial	September 15–30, 2005
2	Training on quantification	Technical and financial	October 1–15, 2005
3	Acquiring equipment for data collection and quantification	Financial	January 2006
4	Setting up evaluation systems	Technical	January to December 2006
5	Procuring financial resources for sensitization, advocacy and procurement of medicines	Financial	January 2006

COUNTRY 6. MALI

Request	Challenges	Technical Assistance Required	Expected Time of Commencement
1	Ensuring rational prescription of antimalarials		On-going
2.	*Establishing an accurate supply of data on consumption of antimalarials	Assistance for training of trainers at the central level	Second quarter 2006
3	*Making accurate estimates of the needs of the country in antimalarials	Technical assistance for training in the use of Quantimed	Second quarter 2006
*These activities will be included in the National Action Plan of the Ministry of Health for 2006 for sourcing of finance.			

COUNTRY 7. NIGERIA

Request	Challenges	Technical Assistance Required	Expected Time of Commencement
1	Building capacity for quantification at national and regional level in the country	Facilitation tools	October or November 2005
2	Establishing a database	Technical assistance	October 2005

COUNTRY 8. SENEGAL

Request	Challenges	Technical Assistance Required	Expected Time of Commencement
1	Acquiring software and training tools		First quarter 2006
2	Installing the software within the country structures	Technical assistance	First quarter 2006
3	Training stakeholders on Quantimed software		First quarter 2006
4	Monitoring and evaluation of data collection with software	Technical assistance	Third quarter 2006

ANNEX 5. COUNTRY GROUPINGS FOR TOT PRACTICAL

Session	Group 1		Group 2		Group 3	
1	<i>Case 1</i> Ghana	<i>Case 1</i> Nigeria	<i>Case 1</i> Senegal	<i>Case 2</i> Senegal	<i>Case 1</i> Mali	<i>Case 2</i> Mali
2	<i>Case 2</i> Ghana	<i>Case 2</i> Nigeria	<i>Case 3</i> Benin	<i>Case 1</i> Benin	<i>Case 3</i> Guinea	<i>Case 1</i> Guinea
3	<i>Case 3</i> Ghana	<i>Case 3</i> Nigeria	<i>Case 2</i> *Burkina Faso		<i>Case 2</i> *Cameroon	

*Burkina Faso and Cameroon were assigned a single presentation each, as each country has only one participant.

ANNEX 6. CONSOLIDATED TOT SELF-ASSESSMENT REPORTS

At the Beginning of the Training of Trainers Workshop

Strengths of participants as trainers or facilitators—

- Keeping the structure of the presentation
- Involving participants in the activities
- Respecting the opinions from other people
- Meeting the training objectives
- Having audible and eloquent speech
- Active monitoring and engaging of participants
- Using appropriate language
- Having the ability to create a good learning environment
- Using contemporary language and examples
- Having a commitment to duty
- Having a desire to help others learn
- Demonstrating familiarization with the topic being delivered
- Having commitment to quality
- Having the ability to break down the topic into simple terms for people to understand
- Demonstrating experience as a lecturer
- Understanding different languages
- Having the capacity to listen to others
- Providing rehearsals before presentation
- Offering meticulous and generous explanations to learners during the training

After the Training of Trainers Workshop

Areas that have been developed/improved during the TOT workshop—

- Learning to consider different competency levels within the group
- Taking prior knowledge of learners into consideration
- Mastering the subject before presentations
- Learning to improvise with whatever is available to continue with the work
- Using a dialogue approach when presenting
- Developing oral presentation skills
- Facilitating group discussions
- Developing improved confidence as a facilitator
- Maintaining eye contact with the participants
- Using more adult learning methods in delivery
- Managing time
- Learning how to self-critique
- Developing better communication methods and style
- Organizing presentation and delivery

- Preparing for the worst
- Conducting small group discussions
- Developing ease in art of teaching, creating a participatory audience during presentation
- Expanding knowledge of adult learning
- Managing one's mood
- Making small summaries during the course of the presentation

Areas that still need to be developed—

- Clarifying and stating the goals and objectives before presentation
- Employing different teaching methods
- Taking account of individuals needs
- Mastering the subject
- Improving ability to conduct exercises and activities
- Improving ability to use different teaching materials
- Getting some additional practice to develop competency as a facilitator
- Organizing materials and thoughts before starting a presentation
- Planning effectively for delivery
- Getting more feedback from the audience
- Developing the ability to employ participatory approaches
- Selecting the most important information especially when short of time
- Achieving training goals
- Learning how to evaluate trainings
- Improving communication skills
- Conducting large group discussions
- Allowing for better interaction with the participants
- Dealing with anxiety
- Developing the ability to keep the participants focused on the presentation
- Developing patience with slow learners
- Keeping presentations short and concise
- Exhibiting self-control during presentations
- Mastering adult teaching methods
- Mastering the use of equipment—LCD and overhead projector, videos, etc.
- Building past experiences into the presentation