

**Rational Pharmaceutical Management Plus
Quantimed Training in Nairobi, Kenya, August 10 to 13, 2004:
Trip Report**

Laila Akhlaghi

Printed: August 2005

Rational Pharmaceutical Management Plus
Center for Pharmaceutical Management
Management Sciences for Health
4301 N. Fairfax Drive, Suite 400
Arlington, VA 22203
Phone: 703-524-6575
Fax: 703-524-7898
E-mail: rpmpius@msh.org

This report was made possible through support provided by the U.S. Agency for International Development, under the terms of cooperative agreement number HRN-A-00-00-00016-00. The opinions expressed herein are those of the author(s) and do not necessarily reflect the views of the U.S. Agency for International Development.

About RPM Plus

The Rational Pharmaceutical Management Plus (RPM Plus) Program, funded by the U.S. Agency for International Development (cooperative agreement HRN-A-00-00-00016-00), works in more than 20 developing countries to provide technical assistance to strengthen drug 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.

This document does not necessarily represent the views or opinions of USAID. It may be reproduced if credit is given to RPM Plus.

Recommended Citation

Akhlaghi, Laila 2004. [*Quantimed Training in Nairobi, Kenya, August 10-13, 2004.*] Submitted to the U.S. Agency for International Development by the Rational Pharmaceutical Management Plus Program. Arlington, VA: Management Sciences for Health.

Contents

Acronyms	v
Background	1
Purpose of Trip	1
Scope of Work	1
Activities	3
Tuesday, August 10	3
Wednesday, August 11	3
Thursday, August 12	4
Friday, August 13	4
Collaborators and Partners	4
Next Steps	7
Immediate Follow-up Activities	7
Recommendations	7
Annex 1: Discussion of Quantification in HIV/AIDS, TB and Malaria	9
Annex 2: Quantification for HIV/AIDS	14

Acronyms

AIDS	acquired immunodeficiency syndrome
ART	antiretroviral therapy
ARV	antiretroviral [drugs]
CDC	Center for Disease Control and Prevention
CRHCS-ECSA	Commonwealth Regional Health Community Secretariat-East, Central and South Africa
GFATM	Global Fund for AIDS, Tuberculosis and Malaria
JSI	John Snow Inc.
MEDS	Mission for Essential Drugs and Supplies
MOH/KEMSA	Ministry of Health/Kenya Medical Supplies Agency
NASCOP	National AIDS and Sexually Transmitted Diseases Control Programme [Kenya]
PEPFAR	President's Emergency Plan for AIDS Relief
PHN	Public Health and Nutrition
PMTCT	prevention of mother to child transmission
REDSO	Regional Economic Development Services Office
RLI	Regional Logistics Initiative
RPM Plus	Rational Pharmaceutical Management Plus
USAID	U.S. Agency for International Development

Background

RPM Plus has received Track 1.5 funding from USAID's Kenya Mission under the President's Emergency Plan for AIDS Relief to strengthen pharmaceutical services in support of ART in selected sites Provincial General, District and Mission Hospitals, to support national coordination of antiretroviral drug treatment, and to provide initial support to Mission for Essential Drugs & Supplies (MEDS) for infrastructure strengthening and procurement of ARVs and other essential commodities for ART.

Purpose of Trip

Laila Akhlaghi, Senior Program Associate, traveled to Nairobi, Kenya from August 10 to August 14, 2004 under Kenya PEPFAR Funding. The purpose of the trip was to present and demonstrate the use of Quantimed, a tool that simplifies different methods of pharmaceutical quantification, especially of ARVs for ART programs, to USAID staff and other regional players; and to train RLI/REDSO team at Nairobi to use Quantimed for determining drug needs.

Scope of Work

- Demonstrate the use of Quantimed software to "PEPFAR" Inter agency team and MEDS in a bid to validate quantities and costs of ARVs and OIs that may be procured under track 2.0 ahead of procurement, and allowing for programme scale up.
- Train the RLI/REDSO team at Nairobi to use Quantimed for determining drug needs for Hanang District of Tanzania for their Community Health financing Scheme following a recently concluded quantification data collection mission in Hanang/Tanzania.
- Demonstrate Quantimed to NASCOP to show how it could be used to quantify and plan for ARV commodity procurement at national level under different procurement streams (GFTAM, MOH/KEMSA, PEPFAR, PMTCT Plus, etc)

Activities

Tuesday, August 10

Laila met with the Christine Onyango and Rosalind Kirika, Senior Program Associates; Inès Buki Gege and Joseph Mukuko, Program Associates; and Gil Cripps, Health care financing advisor with REDSO to begin training on Quantimed. The training began with a brief discussion of HIV/AIDS pharmaceutical quantification, a presentation on Quantimed and was followed by a demonstration of Quantimed.

- **Power point Presentation: *Discussion of Quantification in AIDS, Tuberculosis and Malaria.*** A discussion of the complexities that can affect quantification and forecasting of pharmaceuticals used in the treatment and care of patients with HIV/AIDS, TB and Malaria. The presentation is provided in Annex 1.
- **Demonstration of Quantimed:** Quantimed was demonstrated using an already prepared data set which included a quantification of Haiti's adult ARV needs for a program that is scaling up.

Wednesday, August 11

A presentation of Participants included Vathani Amirthanayagam, USAID PHN Officer, and Gil Cripps of USAID/REDSO; Mark Bura (Health Care Financing Coordinator) of CRHCS; John Wesonga (Senior Program specialist HIV/AIDS) of USAID/Kenya; Michael Thuo, Regional Advisor, and Joseph Mukoko, Program Associate, for RPM Plus.

- **Power point Presentation: *HIV/AIDS Quantification.*** Presented the product, therapy, programmatic and supply complexities that can affect quantification and forecasting of pharmaceuticals used in the treatment and care of patients with HIV/AIDS and an overview of the uses, functions and key features of Quantimed. The presentation is provided in Annex 2.
- **Demonstration of Quantimed:** Quantimed was demonstrated using an already prepared data set which included a quantification of Haiti's adult ARV needs for a program that is scaling up. Recommendations were made for changes to the Quantimed tool.

Following the above meeting, a second meeting was arranged with Jane Masiga, MEDS Deputy General Manager and John Kiambuthi, MEDS Trainer with Michael Thuo and Joseph Mukoko. Laila worked with the team to input CDC/MEDS assumptions and data into the Quantimed tool to quantify ARVs. Several program scale-up scenarios were input into Quantimed to demonstrate cost differences. The data is to be used in the PEPFAR program for procurement and budgetary purposes.

Thursday, August 12

Laila traveled to Nukuru, Kenya with Michael Thuo, Regional Advisor, Joseph Mukuko and Inès Buki Gege, Program Associates for RPM Plus; Jasmine Chandani, HIV/AIDS Advisor for JSI/DELIVER; and Mary Wangai Deputy Director of NASCOP, to meet with Cecilia Muiva, pharmacist with NASCOP and two pharmacists Brian Maiyo and Ndegwa to present and demonstrate Quantimed.

- **Demonstration of Quantimed:** Quantimed was demonstrated using an already prepared data set which included a quantification of Haiti's adult ARV needs for a program that is scaling up. MEDS data from the previous day was also used in the presentation. Recommendations were made for changes to the Quantimed tool.

Friday, August 13

Laila Akhlaghi met with Stephen Moore, Technical advisor of CDC/Kenya to present and demonstrate Quantimed. She worked with Stephen Moore to further develop the assumptions used in the MEDS quantification.

Following the meeting, Laila worked with Rosalind Kirika on essential medicines consumption quantification for the Hanang District, Tanzania. Laila trained Rosalind in use of Quantimed for consumption quantification method and discussed the type and quality of data needed for this quantification method. The rest of her time in Kenya was spend in inputting the Hanang consumption data into Quantimed.

Collaborators and Partners

USAID:

Vathani Amirthanayagam	PHN Officer, USAID
Gil Cripps	REDSO
John Wesonga	Senior Program specialist HIV/AIDS

NASCOP:

Mary Wangai	Deputy Director
Cecilia Muiva,	Pharmacist

MoH:

Brian Maiyo	Pharmacist
Ndegwa	Pharmacist

MEDS:

Jane Masiga	Deputy General Manager
John Kiambuthi	Trainer

CRHCS:

Mark Bura Health Care Financing Coordinator

RLI:

Rosalind Kirika Senior Program Associate

JSI/DELIVER:

Jasmine Chandani HIV/AIDS Advisor

CDC/Kenya:

Stephen Moore Technical advisor

Next Steps

Immediate Follow-up Activities

Provide training on HIV/AIDS pharmaceuticals quantification and Quantimed to all interested persons. Develop a manual quantification workbook to be used at the facility level for ARVs used in ART and PEP.

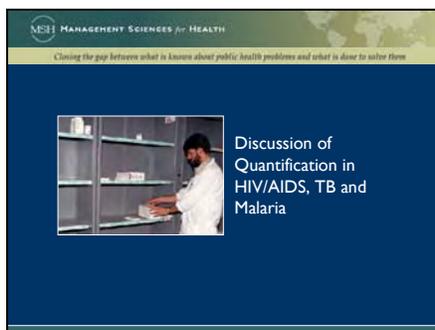
Any recommended changes to the function and ease of Quantimed are to be considered and changes to Quantimed will be made as necessary.

Recommendations

It is recommended that training on improving quantification of ARVs and Quantimed be given to Kenya RPM plus, Kenya MoH, MEDS and NASCOP staff. A manual quantification workbook should be developed for the use at the facilities to quantify orders of ARVs used in ART and PEP.

Annex 1: Discussion of Quantification in HIV/AIDS, TB and Malaria

Slide 1

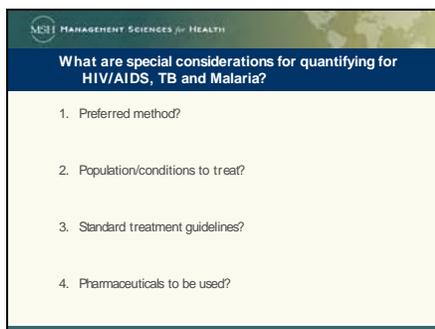


MSH MANAGEMENT SCIENCES for HEALTH
Closing the gap between what is known about public health problems and what is done to solve them



Discussion of
Quantification in
HIV/AIDS, TB and
Malaria

Slide 2



MSH MANAGEMENT SCIENCES for HEALTH

What are special considerations for quantifying for HIV/AIDS, TB and Malaria?

1. Preferred method?
2. Population/conditions to treat?
3. Standard treatment guidelines?
4. Pharmaceuticals to be used?

Slide 3



MSH MANAGEMENT SCIENCES for HEALTH

What are special considerations for quantifying antiretrovirals (ARVs)?

1. Preferred method?
 - Morbidity/scaling-up
2. Population/conditions to treat?
 - ART, PMTCT, PMTCT-plus, PEP
 - Program goals (national or facility level)
 - Facility capacity:
 - Quality/quantity of HCP and lay staff
 - Eligibility committee
 - Lab services
 - Security and storage infrastructure
 - Distribution and procurement systems
 - Percent of population on treatments
 - Current prescribing patterns
 - Attrition rates
 - 1st line to 2nd line conversions
 - Demographic data

Slide 4

What are special considerations for quantifying antiretrovirals (ARVs)? (2)

3. Standard treatment guidelines?
 - Ever-changing
 - Review:
 - Any upcoming revisions?
 - Appropriateness (i.e. D4T suspension, APV)
 - Compare with other guidelines (WHO, US)
 - Regimens for pregnant women, TB, HCV
4. Pharmaceuticals to be used?
 - FDCs: D4T/3TC, ZDV/3TC, D4T/3TC/NVP & ZDV/3TC/NVP
 - Dose dependant on patient weight: D4T and DDI

Slide 5

What are special considerations for quantifying rapid test kits (RTKs)?

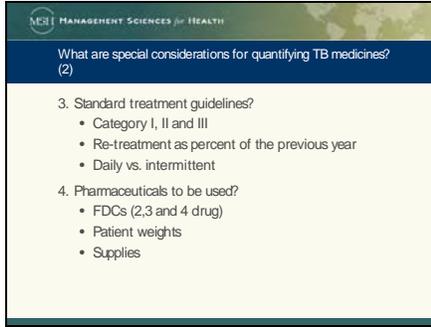
1. Preferred method?
 - Morbidity
 - Consumption
2. Population/conditions to treat?
 - VCT, PMTCT (opt in/opt-out), PEP, Training
 - Population growth, pregnancy rates, community awareness
3. Testing method and products to be used?
 - Rapid test kits, ELISA
 - Parallel, Serial, % of discordant results, Tie breaker

Slide 6

What are special considerations for quantifying TB medicines?

1. Preferred method?
 - Morbidity
 - Consumption-not recommended
2. Population/conditions to treat?
 - Population growth
 - DOTS Coverage
 - Notification rates (plans for increase?)
 - Evaluation rates (plans to increase?)
 - % of patients receiving treatment

Slide 7

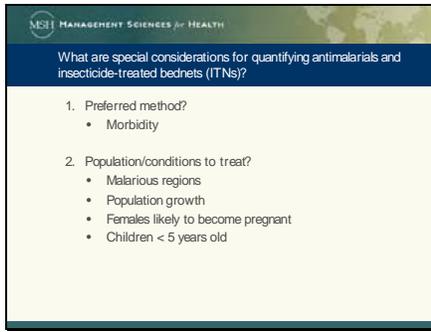


MEHI MANAGEMENT SCIENCES for HEALTH

What are special considerations for quantifying TB medicines?
(2)

3. Standard treatment guidelines?
 - Category I, II and III
 - Re-treatment as percent of the previous year
 - Daily vs. intermittent
4. Pharmaceuticals to be used?
 - FDCs (2,3 and 4 drug)
 - Patient weights
 - Supplies

Slide 8

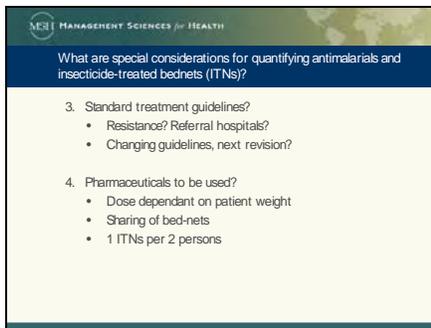


MEHI MANAGEMENT SCIENCES for HEALTH

What are special considerations for quantifying antimalarials and insecticide-treated bednets (ITNs)?

1. Preferred method?
 - Morbidity
2. Population/conditions to treat?
 - Malarious regions
 - Population growth
 - Females likely to become pregnant
 - Children < 5 years old

Slide 9

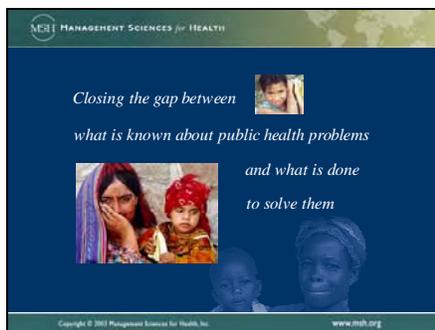


MEHI MANAGEMENT SCIENCES for HEALTH

What are special considerations for quantifying antimalarials and insecticide-treated bednets (ITNs)?

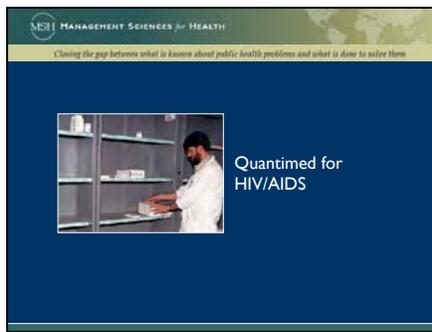
3. Standard treatment guidelines?
 - Resistance? Referral hospitals?
 - Changing guidelines, next revision?
4. Pharmaceuticals to be used?
 - Dose dependant on patient weight
 - Sharing of bed-nets
 - 1 ITNs per 2 persons

Slide 10

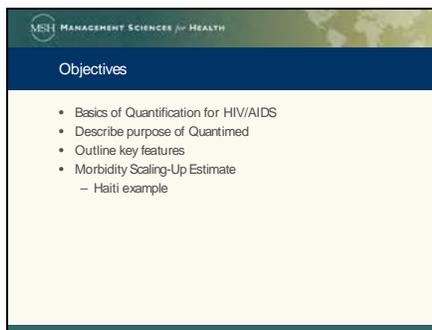


Annex 2: Quantification for HIV/AIDS

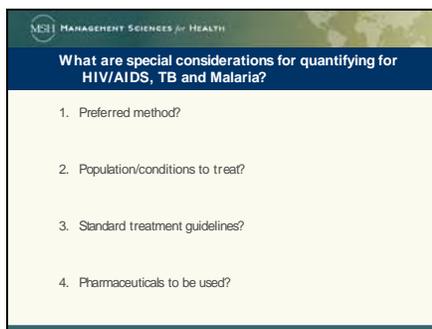
Slide 1



Slide 2



Slide 3



Slide 4

MEH MANAGEMENT SCIENCES for HEALTH

What are special considerations for quantifying antiretrovirals (ARVs)?

1. Preferred method?
 - Morbidity/scaling-up
2. Population/conditions to treat?
 - ART, PMTCT, PMTCT-plus, PEP
 - Program goals (national or facility level)
 - Facility capacity:
 - Quality/quantity of HCP and lay staff
 - Eligibility committee
 - Lab services
 - Security and storage infrastructure
 - Distribution and procurement systems
 - HMIS
 - Percent of population on treatments
 - Current prescribing patterns
 - Attrition rates
 - 1st line to 2nd line conversions
 - Demographic data

Slide 5

MEH MANAGEMENT SCIENCES for HEALTH

What are special considerations for quantifying antiretrovirals (ARVs)? (2)

3. Standard treatment guidelines?
 - Ever-changing
 - Review:
 - Any upcoming revisions?
 - Appropriateness (i.e. D4T suspension, APV)
 - Compare with other guidelines (WHO, US)
 - Regimens for pregnant women, TB, HCV
4. Pharmaceuticals to be used?
 - FDCs: D4T/3TC, ZDV/3TC, D4T/3TC/NVP & ZDV/3TC/NVP
 - Dose dependent on patient weight: D4T and DDI

Slide 6

MEH MANAGEMENT SCIENCES for HEALTH

What are special considerations for quantifying rapid test kits (RTKs)?

1. Preferred method?
 - Morbidity
 - Consumption
2. Population/conditions to treat?
 - VCT, PMTCT (opt in/opt-out), PEP, Training
 - Population growth, pregnancy rates, community awareness
3. Testing method and products to be used?
 - Rapid test kits, ELISA
 - Parallel, Serial, % of discordant results, Tie breaker

Slide 7

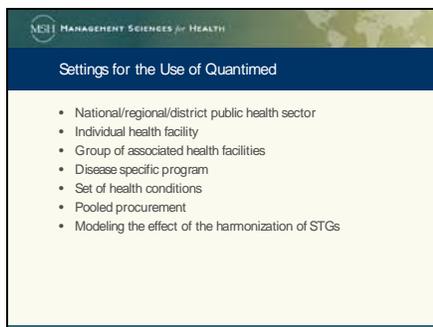


MEHI MANAGEMENT SCIENCES for HEALTH

Quantification Methodologies

- Consumption-based
- Proxy consumption-based
- Morbidity-based
 - Scaling up morbidity

Slide 8

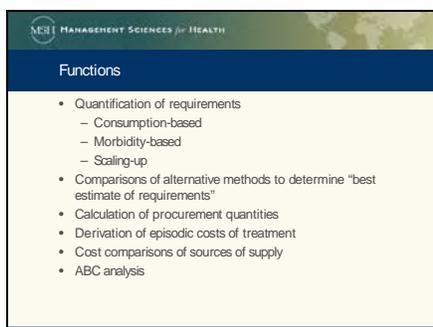


MEHI MANAGEMENT SCIENCES for HEALTH

Settings for the Use of Quantimed

- National/regional/district public health sector
- Individual health facility
- Group of associated health facilities
- Disease specific program
- Set of health conditions
- Pooled procurement
- Modeling the effect of the harmonization of STGs

Slide 9



MEHI MANAGEMENT SCIENCES for HEALTH

Functions

- Quantification of requirements
 - Consumption-based
 - Morbidity-based
 - Scaling-up
- Comparisons of alternative methods to determine "best estimate of requirements"
- Calculation of procurement quantities
- Derivation of episodic costs of treatment
- Cost comparisons of sources of supply
- ABC analysis

Slide 10

MSH MANAGEMENT SCIENCES for HEALTH

Key Features (1)

- Access database format
- Export ability of results to Microsoft Excel
- Accurate, consistent data entry facilitated through "look-up" tables and lists
- Built-in, client-adaptable medicines and supply list with median prices from the MSH *International Drug Price Indicator Guide* (updatable annually)
- ATC, WHO Therapeutic, and ICD coding structures
- User-defined product coding, VEN status, inclusion on EML

Slide 11

MSH MANAGEMENT SCIENCES for HEALTH

Key Features (2)

- Decision-tree for determining proportion of cases treated by each regimen
- Multi-user
- Duplicate data sets
- A set of standard data collection forms and reports
 - Import/export
 - Printable
- Comprehensive user's guide

Slide 12

MSH MANAGEMENT SCIENCES for HEALTH

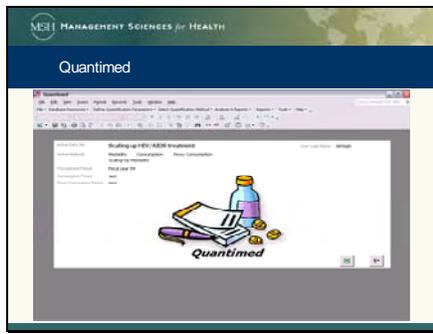
Tools Available

- **Spreadsheets**
- **Quantimed**

Slide 13

The screenshot shows a complex spreadsheet with multiple columns and rows of data. The title is "Example of Spreadsheet-Haiti". The data appears to be organized into several sections, possibly representing different categories or time periods. A yellow highlight is visible on one of the cells in the lower right quadrant of the data area.

Slide 14



Slide 15

-
- Quantification Methodologies**
- Consumption-based
 - Proxy consumption-based
 - Morbidity-based
 - Scaling up morbidity

Slide 16

MSH MANAGEMENT SCIENCES for HEALTH

Applications of Quantimed

- National/regional/district public health sector
- Individual health facility
- Group of associated health facilities
- Disease specific program
- Set of health conditions
- Pooled procurement
- Demonstration of benefits of harmonization of STGs

Slide 17

MSH MANAGEMENT SCIENCES for HEALTH

Key Features

- Database format and ability to export results to Microsoft Excel
- Built-in, Client-adaptable medicines and supply list with median prices from MSH's regularly updated *International Drug Price Indicator Guide*
- User-friendly data entry through "look-up" tables and lists
- A set of standard data collection forms and reports
- Comprehensive user's guide

Slide 18

MSH MANAGEMENT SCIENCES for HEALTH

Closing the gap between 

what is known about public health problems

 *and what is done*

to solve them 

Copyright © 2003 Management Sciences for Health, Inc. www.msh.org