

Rational Pharmaceutical Management Plus Organisation of Eastern Caribbean States ARV Supply Management Workshop, St Lucia: May 31 – June 1, 2006: Trip Report

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July 11, 2006



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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

RPM Plus works in more than 20 developing and transitional 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.

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Walkowiak, Helena 2006. *Organisation of Eastern Caribbean States ARV Supply Management Workshop, St Lucia: May 31 – June 1, 2006: Trip Report*. Submitted to the U.S. Agency for International Development by the Rational Pharmaceutical Management Plus Program. Arlington, VA: Management Sciences for Health.

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Acronyms

AIDS	acquired immunodeficiency syndrome
ART	antiretroviral therapy
ARV	antiretroviral [medicine]
CAREC	Caribbean Epidemiology Centre [PAHO/WHO]
HAPU	HIV/AIDS Project Unit [OECS]
HIV	human immunodeficiency virus
MSH	Management Sciences for Health
OECS	Organisation of Eastern Caribbean States
PAHO	Pan American Health Organisation
PPS	Pharmaceutical Procurement Service [OECS]
RPM	Rational Pharmaceutical Management Plus [Program]
USAID	United States Agency for International Development
WHO	World Health Organisation

Background

The Antiretroviral Medicine (ARV) Supply Management Workshop was convened by the Organisation of Eastern Caribbean States (OECS) in collaboration with the Pan American Health Organisation (PAHO) Office of Caribbean Programme Coordination, the Clinton Foundation and the Caribbean Epidemiology Centre (CAREC).

The workshop, which targeted an OECS multidisciplinary audience of 27 health professionals comprising national HIV/AIDS Coordinators, Clinical Care Coordinators, and Central Medical Stores Managers, had four main objectives—

- Strengthen internal communication among key technical staff regarding the procurement, logistics and financing of ARVs under the OECS Global Fund Agreement.
- Explain the targets and indicators regarding the procurement of ARVs under the OECS Global Fund Agreement.
- Provide an update on the clinical use of ARVs to include the pharmacology and ARV treatment protocols.
- Describe the role of the pharmacist as an integral member of the Clinical Care team in the management of HIV/AIDS.

Management Sciences for Health (MSH) Rational Pharmaceutical Management Plus Program (RPM Plus) was invited by OECS/ Pharmaceutical Procurement Service (PPS) to send a representative to the meeting to present on ARV quantification and to demonstrate the Quantimed® tool.

Purpose of Trip

Ms Helena Walkowiak, Senior Program Associate, RPM Plus traveled to St Lucia with funding from the United States Agency for International Development (USAID) / Washington to attend the workshop held from May 31 to June 1, 2006 to make a presentation on *ARV Quantification using Quantimed®* and to participate in discussions on ARV forecasting issues related to antiretroviral therapy (ART) program scale up.

Scope of Work

1. Give a presentation on ARV Quantification using Quantimed®.
2. Participate in discussions on ARV forecasting issues related to ART program scale up.

Activities

1. Give a presentation on ARV Quantification using Quantimed®

The draft agenda of the meeting is attached as Annex 1. Ms Walkowiak's presentation entitled *ARV Quantification using Quantimed®* was very well received and is attached as Annex 2. Several member countries expressed interest in exploring the possibility of using Quantimed® or other RPM Plus ARV quantification tools, the ARV Dispensing Tool and also in receiving training in ARV quantification issues and methodologies.

2. Participate in discussions on ARV forecasting issues related to ART program scale up

The workshop consisted of two days of presentations and concluded with OECS representatives reaching consensus on a set of decisions regarding critical next steps.

Observations/Key Issues

- The OECS/PPS reported on the first year of procurement of ARVs under the OECS Global Fund Agreement. Actual procurement had exceeded forecasts by approximately 300% and all participants recognized the urgent need to improve forecasting.
- Performance of the four suppliers awarded ARV orders was diverse. Extended lead times and wrongly addressed orders and/or errors on shipping documents were the major problems identified.
- Inter-island exchange of ARVs and trans-shipment between OECS countries is problematic. Central Medical Stores Managers were requested to devise a formal system of inter-island exchange of ARVs and OECS/PPS will table the matter at the OECS Policy Board Meeting in September 2006.
- Data submitted by OECS countries on ART patient regimen and numbers and/or ARV consumption was not always timely and inaccuracies between data submitted by Clinical Care Coordinators and central medical stores staff were of concern. Delays by some countries in responding to OECS/PPS requests to verify data was also problematic.
- Few countries seem to have a formal mechanism to bring together clinical and central medical stores staff to compile ARV forecasts. The need to establish multidisciplinary teams and improve internal communication was recognized.
- Considerable time was spent discussing the sustainability of ART following the end of the five-year OECS Global Fund Agreement. It was agreed that countries should begin planning now for funding the ART programs after the Global Fund Agreement finishes.
- Participants agreed that there is a need to start collecting data on treatment failure rates on first-line ART to assist in the future forecasting of second-line ARV needs.

Collaborators and Partners

CAREC

Robert Cazal-Gamelsy, Public Health Advisor

PAHO Office of the Caribbean Programme Coordination

Christophe Rerat, Medicines, Vaccines and Health Technologies, Sub Regional Advisor

OECS

The list of workshop participants is attached as Annex 3.

Next Steps

- RPM Plus will hold further discussions with OECS to explore opportunities for RPM Plus to strengthen the capacity of OECS/PPS to support OECS member countries in improving ARV quantification.

Annex 1. Antiretroviral Supply Management Workshop: Draft Agenda

Saint Lucia
31st May – 1st June 2006

Draft Agenda (revised 23/05/06)

Day 1

Chairman - *Dr James St. Catherine, Project Coordinator, HIV/AIDS, HAPU*

8:30 – 8:35 am	Opening Remarks	Dr Vasantha Chase Director, Social & Sustainable Development, OECS Secretariat
8:35 – 10:00 am	Role of OECS/PPS, in the OECS Global Fund Agreement	Mr. Francis Burnett Managing Director OECS/PPS
10:00 – 10:15 am	B R E A K	
10:15 – 12:30 pm	Antiretroviral therapy	Department of Internal Health Harvard Medical School
	Update on Clinical Use of ARVs	Dr. Lisa Hirschhorn
	ARV Treatment Protocols in the OECS	Dr. Julianne Duncan-Steele
12:30 – 1:30 pm	L U N C H	
1:30 – 2:00 pm	Laboratory Monitoring	Dr. Lester Simon Pathologist Antigua and Barbuda
2:00 – 3:30 pm	Modified DOTS Programme	Dr. James St Catherine Project Coordinator HAPU
		Ms. Marva Jervis Research Coordinator Deapartment of AIDS Bahamas

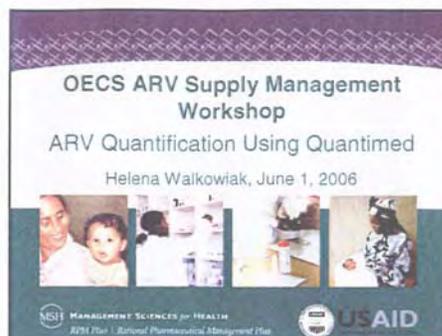
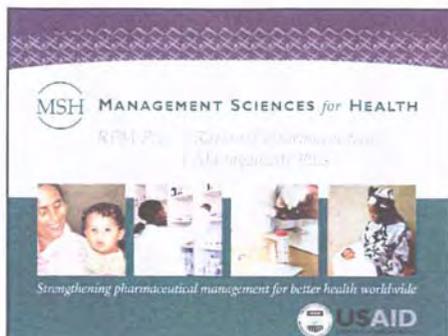
3:30 – 4:00 pm	The Role of the Pharmacist in Clinical Care of HIV/AIDS	Mr. Dave Bridgewater Pharmacist Holberton Hospital, Antigua and Barbuda
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Day 2

Chairman – Francis Burnett, Managing Director, OECS/PPS

8:30 – 10:00 am	Supply Management Mapping Exercise - based on a case study in the OECS	Ms. Sophie Wierich Clinton Foundation
10:00 – 10:15 am	B R E A K	
10:15 – 12:30 am	ARV Forecasting Using Quantimed®	Ms. Helena Walkowiak Senior Program Associate Management Sciences for Health
12:30 – 01:30 pm	L U N C H	
01:30 – 02:15 pm	PAHO Strategic Fund	Dr. Christophe Rerat Medicines, Vaccines and Health Technologies Sub-Regional Advisor PAHO
02:15 - 03:15 pm	ARV Financing	Panel Discussion - Dr. James St. Catherine - Mr. Trevor Peters - Dr. Christophe Rerat
03:15 – 04:15 pm	Critical Next Steps <ul style="list-style-type: none">• Meetings of CMS Managers, CCC, NACs• Pharmacovigilance• ARV Forecasting: Quantimed®	Mr. Francis Burnett Managing Director OECS/PPS
04:15 – 04:20 pm	Closing Remarks	Dr. James St. Catherine HAPU

Annex 2. ARV Quantification using Quantimed®: Helena Walkowiak, RPM Plus



Outline

- Quantification objectives and methods
- Concepts and definitions
- What makes quantifying needs for ART programs different?
- Critical Issues in ART Quantification
- Demonstration of Quantimed

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Rational Pharmaceutical Management Plus Program (RPM Plus)

- Principal Objective—
 - "To improve the availability and use of pharmaceuticals (drugs, vaccines, supplies, laboratory reagents and equipment) of assured quality for USAID's Population, Health and Nutrition Center priority interventions."

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What Is Quantification?

- A process that involves estimating—
 - Quantities of a specific item needed for a procurement
 - Financial requirements needed to purchase the items
- Estimating needs within a given context—
 - Finances
 - Human resources capacity
 - Storage capacity
 - Capacity to deliver services

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Objectives of Good Pharmaceutical Quantification

- Consistent availability
- Adequate supplies for projected scale-up/rollout
- Minimal wastage
- No overstocking
- Cost-effectiveness
- Rational adjustments
- Easy management
- Meeting demand
- Satisfied clients

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Quantification Methods

- Consumption method
- Morbidity method
- *Adjusted-consumption method*
- *Service-level projection*

Consumption Method

- Uses data on medicines consumption
- Predicts future needs most accurately when current usage patterns will continue
- Comparison with morbidity-based method allows an estimate of the extent to which current consumption
 - Addresses priority health needs
 - Reflects rational use of medicines

Morbidity Method

- Used for new programs or for programs where consumption data are not available
- Forecasts the quantity of medicines needed for prevention/treatment of specific diseases based on projections of the incidence of those diseases
- Most complex and time-consuming of all four methods

Comparison of Consumption and Morbidity Methods (1)

Method	Consumption	Morbidity
Uses	<ul style="list-style-type: none"> • First choice for procurement if reliable data available • Most reliable when the consumption pattern is unchanged 	<ul style="list-style-type: none"> • Estimating needs in new and scaling up programs • Comparing use with theoretical needs • Developing and justifying budgets
Data needed	<ul style="list-style-type: none"> • Reliable inventory records • Supplier lead time • Projected medicine costs 	<ul style="list-style-type: none"> • Data on population and patient attendance • Actual or projected incidence of health problems • STGs • Supplier lead time • Projected medicine costs

Comparison of Consumption and Morbidity Methods (2)

Method	Consumption	Morbidity
Limitations	<ul style="list-style-type: none"> • Must have accurate consumption data • Can perpetuate irrational use 	<ul style="list-style-type: none"> • Morbidity data not available for all diseases • Accurate attendance data often not available • STG may not really be followed

Quantification Concepts and Definitions (1)

- Procurement period
 - The time from order to order
- Lead time
 - The time between when the order is prepared and when it is available for issue
- Safety stock
 - Amount of stock kept in reserve to allow for a delay in supply or a sudden increase in demand; usually, safety stock at least covers needs during the lead time

Quantification Concepts and Definitions (2): Scaling Up

- An incremental increase or growth in the number of patients being treated over a period of time
- For scaling up, quantities can be expressed in "patient months"
- One "patient months supply" is the quantity needed to supply 1 patient for 1 month

	Jan	Feb	Mar	Apr
Row 1				10
Row 2			10	10
Row 3		10	10	10
Row 4	10	10	10	10
Total number of patients treated per month	10	20	30	40

Quantification Concepts and Definitions (3)

What Makes Quantifying Needs for ART Programs Different?

ARV Product Characteristics

- ARV products—
 - Often have a short shelf life
 - Are expensive; especially second-line ARVs
 - Require secure and often temperature-controlled storage or refrigeration
- Paediatric formulations—
 - Limited product stability after reconstitution or opening
 - Lack of fixed-dose combinations (FDCs)—
 - Splitting solid-dose products
 - Appropriateness of doses

Antiretroviral Therapy Considerations

- Scientific field is rapidly evolving
- Effect of stock-outs is serious
- At the moment ART is for life
- ART is used for prevention and treatment
- Multiple drug therapy is required
 - Three or more medicines, and all must be available
 - Can be fixed-dose combinations, patient packs, and/or single products
- Multiple regimens are used
- Resistance evolves quickly and is inevitable

Paediatric ART Considerations

- Standard treatment guidelines contain less detail for children's needs, especially for post-exposure prophylaxis
- Knowledge of the regimen does not automatically translate into specific products or dispensing quantities
- Different dosing recommendations exist

Programmatic Considerations: Continuing Patients

- Need patient data in addition to consumption data
- Deaths
- Loss to follow-up/ transfers out
- Changes in regimen
 - Weight; pregnancy; treatment failure; adverse drug reactions (ADRs); co-morbidities
- Paediatrics
 - Changes in dose as children grow; wastage of liquids
 - Changes in ability or willingness to swallow tablets and capsules and tolerance to liquids

Programmatic Considerations: Scaling Up—Unpredictability in Rate

- Push for rapid and enormous scale-up
- Availability and demand for HIV testing
- Client demand for ART
- Limited capacity to deliver services
- Limited capacity of supply systems
- Delays in disbursement of donor funds
- Unpredictability in level of funding available

Programmatic Considerations: Scaling Up—Variable Product Use

- Need for historical patient data
- Profile of enrolling clients compared with continuing clients
- Client characteristics
 - Weight; pregnancy; co-morbidities; treatment-naïve
 - Treatment failure; ADRs; resistance
 - High-risk or low-risk HIV exposure
- Prescribing practices

ART Service Uptake Considerations in Children

- International advocacy and national priority
- Capacity to diagnose HIV infection in children
- Rollout of prevention of mother-to-child transmission programs
- Limited experience and provider confidence, especially in treating smaller children

Supply Considerations

- Oligopoly
- Rapidly changing market
- Special pricing
- Donations
- Unpredictable and long lead times, shortages
- Prequalification or regulatory approval
- Paediatrics – lack of incentives to develop new products and FDCs



ARV Market: Oligopoly

- Few manufacturers
- Impact of prequalification, registration, patents
- Examples
 - 3TC 150 mg tablets – 10¹ (6 prequalified UN/WB)²
 - EFV 600 mg tablets – 5¹ (1 prequalified UN/WB)²
 - d4T 30 mg capsules – 9¹ (3 prequalified UN/WB)²
 - ZDV 10 mg/ml liquid – 6¹ (4 prequalified UN/WB)²
 - NVP 10 mg/ml liquid – 4¹ (2 prequalified UN/WB)²

(1) Sources and Prices of Selected Medicines & Diagnostics for People Living with HIV/AIDS (8th edition June 2005) UNICEF/UNAIDS/WHO/MSF
(2) Access to HIV/AIDS Drugs and Diagnostics of Acceptable Quality: (WHO/UNICEF/UNAIDS/UNFPA/WB) (23rd edition, April 5, 2006)

ARV Market: Meeting Demand

- Capacity of manufacturers to meet demand
 - Suppliers now request long-term forecasts and assurances of procurement
 - Lack of flexibility to increase production to meet short-term needs
- Demand
 - Characterized by extreme uncertainty
 - Push for rapid ART scale-up

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Coverage and Need for ART (UNAIDS/WHO December 2005)

- All WHO regions
 - Number of people on treatment 1,330,000 [1,200,000 – 1,460,000]
 - Estimated need 6,500,000
 - Coverage 20% (up from 11% in December 2004)
- Latin America and the Caribbean Region
 - Number of people on treatment 315,000 [295,000 – 335,000]
 - Estimated need 465,000
 - Coverage 68% (up from 59% in December 2004)

MSH | MANAGEMENT SCIENCE | HEALTH "Progress on Global Access to HIV Antiretroviral Therapy: A Report on 3 by 5" and Beyond" WHO and UNAIDS, March 2005

Critical Issues in ART Quantification

- Data Collection and Reporting



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ARV Data Collection and Reporting

- Inaccurate or lack of ART data is universally identified as a major constraint to successful quantification
- Extracting and aggregating ARV patient data from manual tools can be problematic, especially as programs scale up
- Sites need simple tools (including simple software) and assistance to collect, analyze and report data
- Efficient, timely, and accurate reporting at facilities contributes to successful national quantification

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ART Data Collection Tools

- Manual tools
 - Forms and records of ARV medicine consumption and regimen-based patient data
 - ARV stock control cards
 - Patient log book
- Electronic tools
 - For stock management and/or patient monitoring
 - Excel spreadsheet
 - ARV Dispensing Tool (MSH/RPM Plus)
 - Automatically process the data and generate reports with ease

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ARV Dispensing Tool – RPM Plus



MSH | MANAGEMENT SCIENCE | HEALTH Developed by RPM Plus Program of Management Science for Health with support from USAID

ARV Dispensing Tool – RPM Plus

- Links patient information and individual ART history to stock movement in a facility
- Maintains records for each patient receiving ART - tracks patient profile and medication history
- Generates key management reports, such as Monthly Patient Uptake Trends and Currently Active Patients per Regimen
- Experiences
 - Cote d'Ivoire: 11 sites
 - Namibia: 4 sites
 - Haiti: 4 sites
 - Rwanda: 5 sites
 - Kenya: 20+ sites
 - Zambia: 17 sites

Critical Issues in ART Quantification

- Coordination and Team Work



Coordination of ARV Procurement and Quantification at the National Level

- Mechanism to inform decision making at the central level for effective procurement and quantification
- Should be inclusive of all stakeholders—
 - CMS
 - National AIDS committee
 - MOH
 - Donors
 - Facility staff
 - Public and private sectors
- Monitors and coordinates implementation of activities

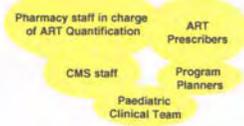
The Quantification Sub-Committee: Role (1)

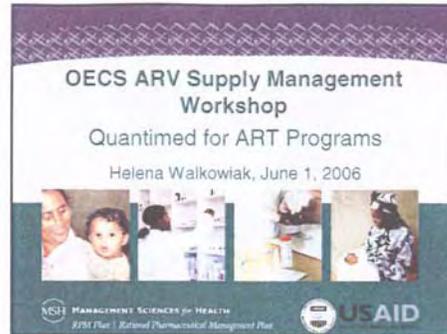
- Plan the quantification process
- Collect, analyze and review the quality of the data
- Coordinate with committee responsible for updating STGs
- Obtain information on upcoming HIV/AIDS public awareness campaigns
- Collect information on treatment targets
 - National targets and for individual sites
 - Adults vs. children

The Quantification Sub-committee: Role (2)

- Develop assumptions – the “Art of Quantification”
- Consider rational use of ARV medicines
- Provide feedback to team, stakeholders, and medical personnel on results and assumptions used
- Evaluate how well the quantification process went
- Identify barriers to quantification process and provide recommendations

Successful quantification of needs for ART rollout requires a team effort!!





Outline

- Describe purpose of Quantimed
- Outline key features
- Morbidity Scaling-Up Estimate
 - Haiti example
- Consumption Estimate

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What Quantimed Can Do

- Quantification methods
 - Consumption based
 - Proxy consumption-based
 - Morbidity based
 - Morbidity-based scaling up
 - Morbidity-based by facility/area
 - Morbidity-based scaling-up by facility/area
- Program and national quantification

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What Quantimed Cannot Do

- It cannot reason for itself.
- It cannot create or collect data, or distinguish between accurate and erroneous data.
- It cannot tell the difference between rational and irrational pharmaceutical therapy.
- Most important, it cannot determine which medicines should be ordered.

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Settings for the Use of Quantimed

- National/regional/district public health sector
- Individual health facility (e.g. large hospital)
- Group of associated health facilities
- Disease-specific program
- Set of health conditions
- Pooled procurement

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Functions

- Quantification of requirements
- Comparisons of alternative methods to determine "best estimate of requirements"
- Calculation of procurement quantities
- Determination of episodic costs of treatment
- Cost comparisons of sources of supply
- ABC analysis

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Quantimed Tool

- The Quantimed tool is based on the Microsoft Access database program
 - Back end: Series of tables consisting of fields and records
 - Front end: View and modify tables through form windows
- The strength of Microsoft Access—
 - Ability to take these smaller tables, identify fields that may be common between them, and establish a link, or relationship, between the tables

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Key Features (1)

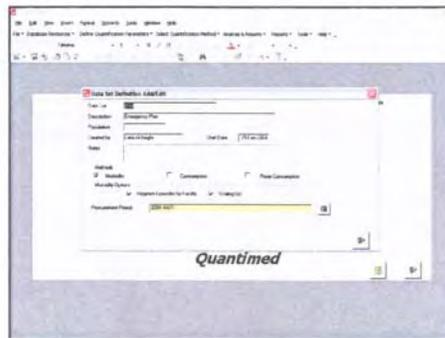
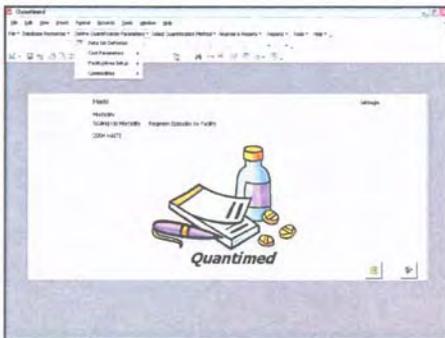
- Ability to export results to Microsoft Excel
- Accurate, consistent data entry facilitated through "look-up" tables and lists
- Built-in, client-adaptable medicines and supply list with median prices from the MSH *International Drug Price Indicator Guide* (updatable annually)
- ATC, WHO Therapeutic,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

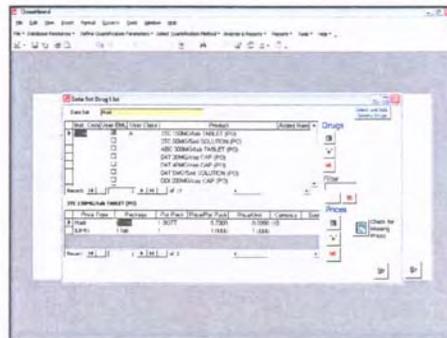
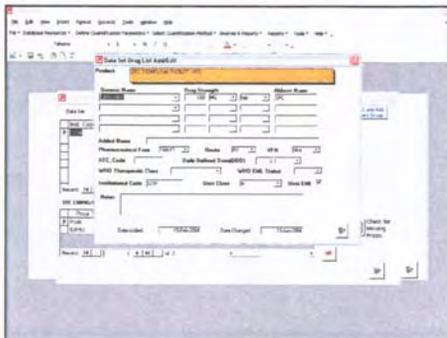
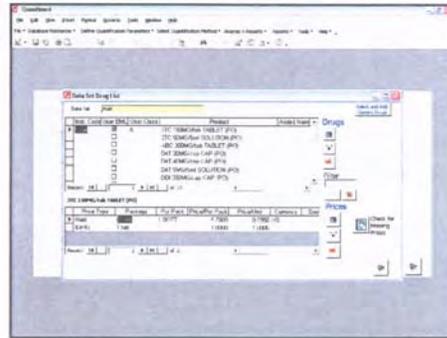
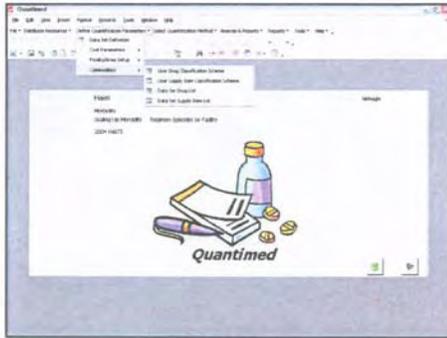
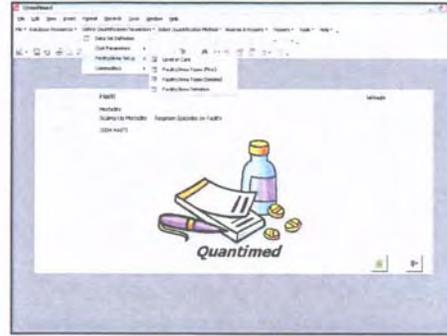
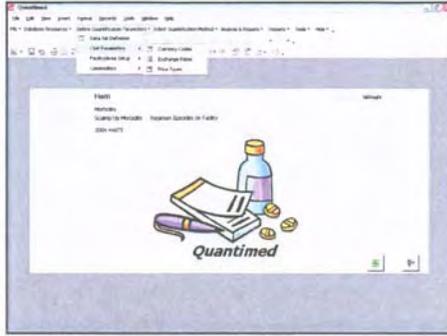
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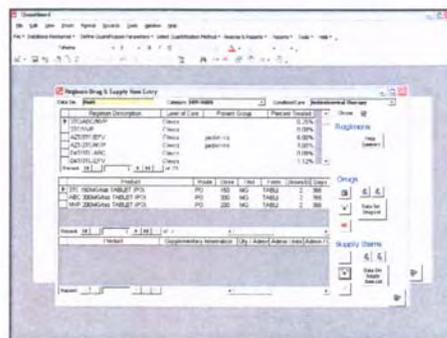
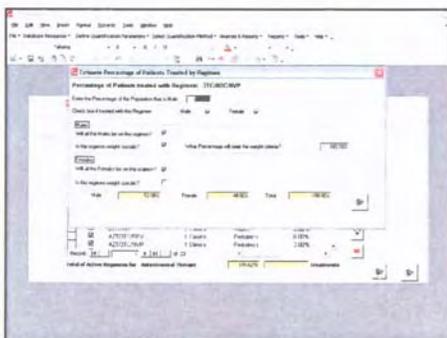
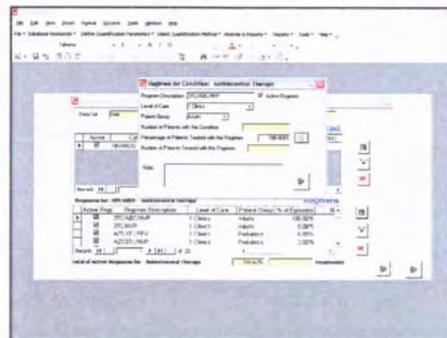
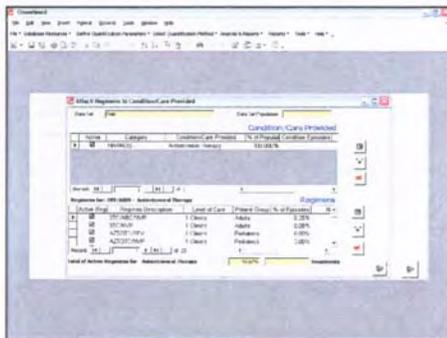
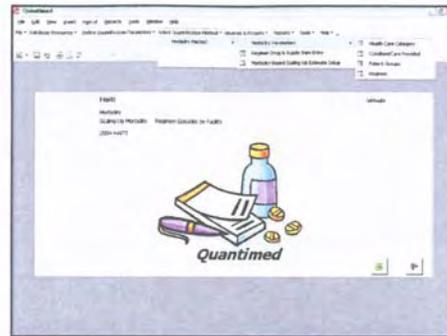
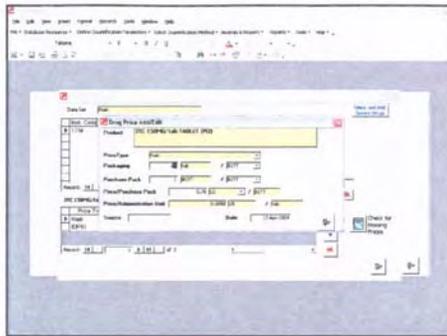
Key Features (2)

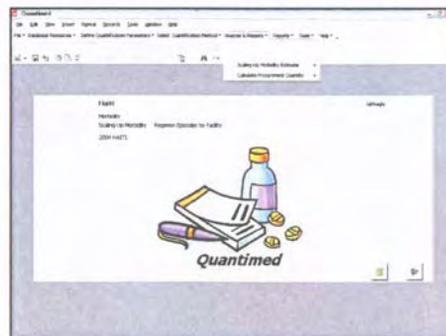
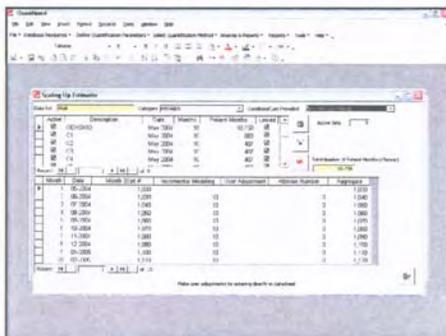
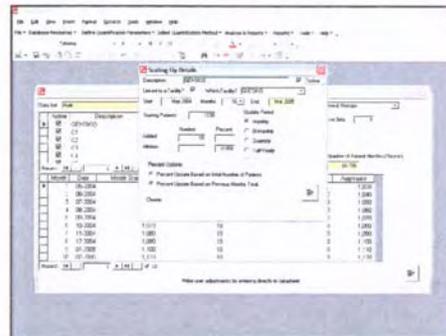
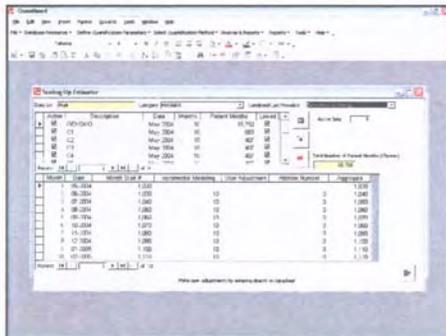
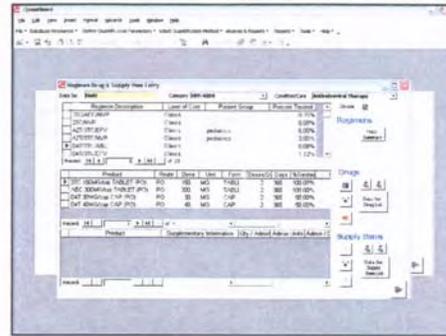
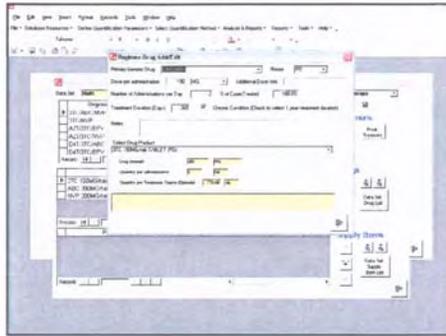
- Multi-user capability
- Duplicate data sets
- A set of standard data collection forms and reports
 - Import/export
 - Printable
- Decision-tree for determining proportion of cases treated by each regimen
- Comprehensive user's guide

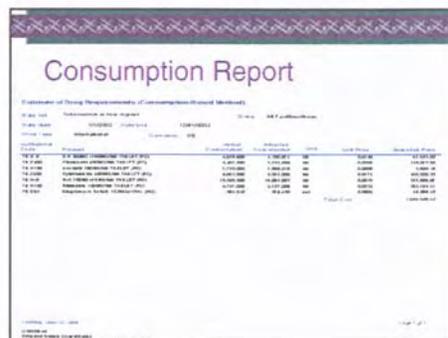
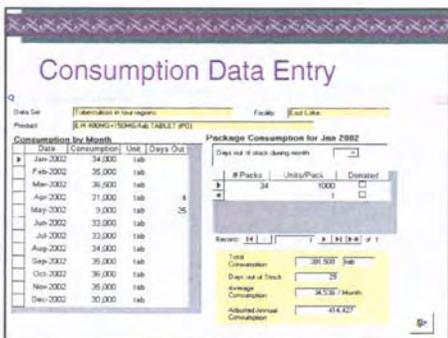
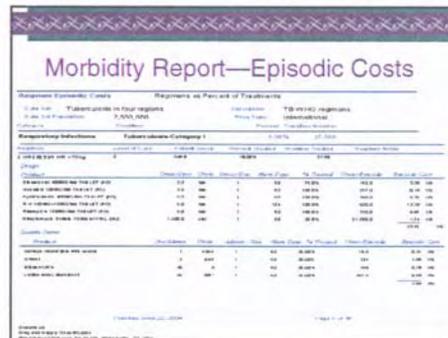
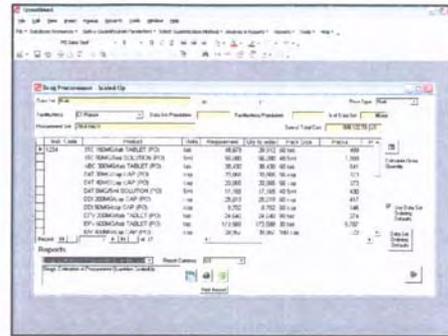
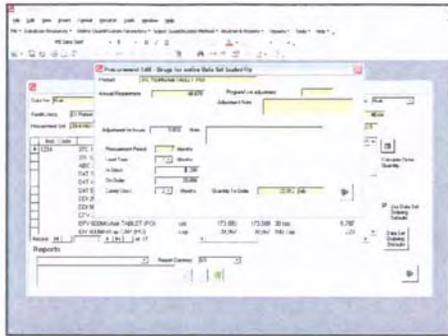
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Comparing Methods

Days In Population: 1,500,000 Population: 2,500,000 Last Day In: 06/31

Consumer Set: Pharmaceutical consumer 2002 Price Type: Standard How Data Is Retrieved: E

Product	Units	Qty Multiplier	Qty Consumed	Qty. Theory	Requirement	Calculation Method
Ethambutol 20MG/Tab (PO)	tab	4,339,320	4,339,320	#None	0	Calculate
Ethambutol 40MG/Tab TABLET (PO)	tab	5,892,200	5,721,880	#None	5,721,880	Use theory
Isoniazid 150MG/Tab TABLET (PO)	tab	7,364,887	7,860,720	#None	7,860,720	Use theory
Pyrazinamide 40MG/Tab TABLET (PO)	tab	9,797,825	9,981,000	#None	9,981,000	Use theory
Rifin 150MG+20MG/Tab TABLET (PO)	tab	15,932,438	16,294,000	#None	16,294,000	Use theory
Rifin 150MG+75MG+40MG/Tab TABLET (PO)	tab	9,797,825	9,737,000	#None	9,737,000	Use theory
Rifampicin 300MG/Tab TABLET (PO)	tab	9,797,825	9,737,000	#None	9,737,000	Use theory

Query: Pharmaceutical consumer 2002 Pharmacy/Prescription Product/Pharmaceutical Prescription (S)

Reports: Report Layout: E Use User: # Foundation, # Institutional Code, # User Group & Foundation

Best Estimate of Requirements

Formulation: Ethambutol 40MG/Tab TABLET (PO)

Morbidity Estimate: 0,000,250 #tab

Consumption Estimate: 5,731,650 #tab

Priority Consumption Estimate: #tab

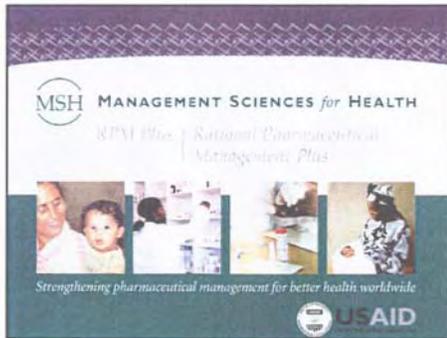
Best Estimate: 5,731,650 Choose Best Estimate: Morbidity, Consumption, Priority Consumption

Adjustment Factor: 5.000% Adjustment Note: 5% to cover population growth

Annual Requirement: 6,018,222 (Based on Best Estimate)

Monthly Required: 501,519

Notes: []



Annex 3. Participants

NAME/COUNTRY	POSITION
MONTSERRAT	
MRS. ANJELLA SKERRIT	FNP/STI/HIV/AIDS FOCAL PERSON MINISTRY OF HEALTH
DR. GOPAL KRISHNAMURTHY	PHYSICIAN SPECIALIST MINISTRY OF HEALTH
MS. RONA GREENAWAY	SENIOR PHARMACIST(AG) MINISTRY OF HEALTH
BRITISH VIRGIN ISLANDS	
MS. GRACIE WHEATLEY	SENIOR PHARMACIST BVI
DR. TUNDE IBRAHIM	INTERNIST/CLINICAL CARE PROVIDER PLWHA
GRENADA	
MRS. ELLEN GABRIEL	
DR. JESSIE HENRY	MEDICAL OFFICER - INFECTIOUS DISEASES
MS. JANET SYLVESTER	COORDINATOR- NAP, MINISTRY OF HEALTH
DOMINICA	
MR. ERROL THOMAS	CHIEF PHARMACIST
DR. CHERUSETA JOSEPH	CLINICAL CARE COORDINATOR
DR. VICTOR EMMANUEL	CLINICAL CARE COORDINATOR (to be)
ANTIGUA AND BARBUDA	
DR. PRINCE RAMSEY	AIDS CLINICAL CARE COORDINATOR
DR. LESTER SIMON	CONSULTANT PATHOLOGIST
MR. ST. CLAIR SOLEYN	MANAGER CENTRAL STORES(AG)
MRS. JANET WESTON	AIDS PROGRAMME MANAGER
MR. DAVE BRIDGEWATER	PHARMACIST (HOD) HOLBERTON HOSPITAL
ST. KITTS AND NEVIS	
DR. KATHLEEN ALLEN-FERDINAND	GP/CCC/CHAIR PERSON NATIONAL ADVISORY COUNCIL ON HIV/AIDS
ANDREA NISBETT	HIV/AIDS PROGRAM COORDINATOR
DR. JUDY NISBETT	CLINICAL CARE COORDINATOR- NEVIS
MR. LOSTON NISBETT	SENIOR PHARMACIST ALEXANDER HOSPITAL
ST. VINCENT AND THE GRENADINES	
DR. GENEVIEVE JOHN	CLINICAL CARE COORDINATOR MINISTRY OF HEALTH
MS. ILONKA O'GARRO	MEDICAL STORE KEEPER (AG) CENTRAL MEDICAL STORES
DR. DEL HAMILTON	DIRECTOR NATIONAL AIDS SECRETARIAT MINISTRY OF HEALTH

NAME/COUNTRY	POSITION
ANGUILLA MRS. PATRICIA BEARD MRS. PETAL KENDALL	COORDINATOR NATIONAL AIDS PROGRAMME SENIOR PHARMACIST ANGUILLA
ST. LUCIA MS. ALLISON JEAN MR. ABRAHAM WEEKES MS. DONNA L DANIEL MRS. SONIA ALEXANDER	MEDICAL SUPPLIES OFFICER MINISTRY OF HEALTH PHARMACIST (HOSPITAL) CHIEF PHARMACIST DIRECTOR (AG) NATIONAL AIDS PROGRAM (MOH)
BARBADOS MS. MARYAM HINDS	DIRECTOR BARBADOS DRUG SERVICE
BAHAMAS DR. MARVA JERVIS	RESEARCH COORDINATOR/ CLINICAL CARE SPECIALIST HIV/AIDS CENTRE, DEPT OF PUBLIC HEALTH
PAHO/CPC DR. RERAT CHRISTOPHE	SUB REGIONAL ADVISOR IN MEDICINES
HARVARD MEDICAL SCHOOL DR. LISA HIRSCHHORN MS. LINDA MARC DR. JULIANNE STEEL-DUNCAN	ASSOCIATE DIRECTOR, OFFICE OF INTERNATIONAL PROGRAMS HIV NURSE PRECEPTOR HIV PHYSICIAN PRECEPTOR, OECS
CLINTON FOUNDATION MRS. DAWN ZEKIS MS. BELYNDA BADA MS. FUNA MADUKA	INTERN COUNTRY DIRECTOR HIV/AIDS INITIATIVE ANALYST
MSH/RPM PLUS MS. HELENA WALKOWAIK	SENIOR PROGRAM ASSOCIATE
CARICOM/PANCAP MS. HEATHER PATRICK	PANCAP PROGRAMME OFFICER
RCM MS. JOAN DIDIER	DIRECTOR RCM FOR OECS GLOBAL FUND
CAREC DR. ROBERT CAZAL- GAMELSY	PUBLIC HEALTH ADVISOR