Assessing the Pharmaceutical Supply System in Namibia to Support Expansion of PMTCT and ART Activities

**Objective**
Management Sciences for Health/Rational Pharmaceutical Management (RPM) Plus Program is assisting the Government of Namibia in its efforts to improve the country’s pharmaceutical management capacity to support expansion of HIV/AIDS programs.

**Methodology: RPM Plus Approach**
1. Diagnostic assessment of performance
2. Development of strategic options for improvement
3. Options analysis with stakeholders
4. Implementation of preferred option

In 2003, RPM Plus assessed the central medical store (CMS), two regional medical stores (RMS), and 12 health facilities to determine their ability to support the scale-up expansion of prevention of mother-to-child transmission (PMTCT), voluntary counseling and testing (VCT), and antiretroviral therapy (ART) services. The assessment included—

- Review of facility operations and interviews with key informants from the government, public, and private sectors using a structured questionnaire
- Review of the infrastructure, staffing, training, selection, quantification, drug use, and the operation of PMTCT, VCT, and ART programs at the facility level
- Commission of a financial audit of the CMS “Trade Account”

**Selected Results**

**Overall**
- A critical lack of human resources for all sectors and activities
- Lack of communication among facilities
- Lack of organized training
- Low staff morale and perceived lack of recognition

**Procurement and Quantification**
- Weak quantification systems at all levels of the supply chain due to unreliable inventory control and information systems
- No effective systems for deciding when, what, and how much to order

The graph below shows the variation between CMS’s contracted quantities and actual order quantities. On average, actual order quantities are almost 250 percent of contract quantities, because of a poor quantification system that leads to inefficient procurement.

**Distribution**
- Inadequate maintenance of stock records at all levels
- Poor stock rotation systems
- Frequent emergency orders
- Inadequate transport management and old vehicles

The table below shows that poor record-keeping systems contribute to inventory management challenges.

**Inventory Logistics Measures across All Levels**

<table>
<thead>
<tr>
<th>CMS</th>
<th>RMS #1</th>
<th>RMS #2</th>
<th>Health Facilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average % of indicate variation for set of indicator drugs</td>
<td>12</td>
<td>N/A</td>
<td>2</td>
</tr>
<tr>
<td>Average % of stock out that compared with physical counts</td>
<td>34</td>
<td>N/A</td>
<td>57</td>
</tr>
<tr>
<td>Average % of set of unsorted indicator drugs available</td>
<td>91</td>
<td>91</td>
<td>100</td>
</tr>
<tr>
<td>Average % of time out of stack for set of indicator drugs</td>
<td>3</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>N/A = not measured</td>
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</table>

**Pharmaceutical Management Support**
- No functioning pharmaceutical management information system
- Poor monitoring and evaluation systems
- Inadequate maintenance and security

**Rational Drug Use**
- Poor prescribing and dispensing practices
- No private counseling areas in pharmacies
- Weak ART drug management information systems
- Lack of functioning drug and therapeutics committees
- No national drug information system

The chart below presents data based on observations of 79 interactions between pharmacy workers and patients. The average amount of time spent with each patient was less than one minute.

**Observation of Pharmacy Workers**

<table>
<thead>
<tr>
<th>Pharmacy Worker</th>
<th>CMS</th>
<th>RMS #1</th>
<th>RMS #2</th>
</tr>
</thead>
<tbody>
<tr>
<td>0%</td>
<td></td>
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<tr>
<td>19%</td>
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<td>47%</td>
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<td>65%</td>
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<td>6%</td>
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<td>95%</td>
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</table>

**Implementation Plan**
To address the issues uncovered by the assessment, RPM Plus is working with stakeholders in Namibia to implement steps in several areas to strengthen the pharmaceutical management system to support HIV/AIDS programs.

**Overall**
- Design and implement training programs in pharmaceutical management and standard operating procedures for HIV/AIDS programs
- Evaluate job content and draft job descriptions and motivation strategies
- Strengthen the pharmacist assistant training program

**CMS and RMS Levels**
- Develop appropriate systems for quantification
- Review/strengthen inventory control policies and procedures
- Hire a Pharmaceutical Management Advisor and an Information Systems Advisor
- Upgrade computerized inventory control systems and roll out to regional medical stores
- Develop appropriate ordering forms and systems based on revised inventory control system
- Conduct physical inventory counts at all levels and update stock records
- Provide training in proper maintenance of stock records
- Review/strengthen standard operating procedures for stockkeeping operations
- Undertake in-depth analysis of transportation and storage needs

**Health Facility Level**
- Refurbish pharmacies, addressing infrastructure, equipment, and security needs
- Refurbish pharmacy practice standard operating procedures
- Review and revise registry and management information system for antiretroviral therapy programs
- Strengthen supervision, monitoring, and evaluation systems, and external audits

**For more information**
Web: www.msh.org/rpmplus • E-mail: rpmplus@msh.org

*Adequate and secure storage is necessary.*

Good record keeping is important to track inventory.

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