Using the QuanTB Tool to Improve TB Medicines Management in Uganda

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Objectives

• QuanTB tool experience in Uganda
• Implementation of an Early Warning System (EWS)
• Challenges affecting availability
Country Context

• Uganda is among the 22 high-burden TB countries
  — 45,662 TB cases, 64% of which are HIV+ (Dec 2010)
  — Strong partnership between HIV/AIDS and TB programs

• Since late 2011, the central National Medical Stores (NMS) is responsible for procurement, storage, and distribution of anti-TB medicines
Problem Statement

• Before 2012, Uganda lacked adequate resources and technical skills to forecast and plan for the supply of required medicines
  – Individual program quantification
  – No standardized tools and method for quantification
  – No periodic reviews done for quantification
  – No institutional memory
Intervention

- Quantification and Procurement Planning Unit (QPPU) was set up
  - Coordination of planning, forecasting and financing of selected health commodities
  - Training: Pipeline, Quantmed, QuanTB
  - Stock status and pipeline monitoring
### Intervention

- Monthly Commodity Security Group Meetings held
  - Bimonthly stock status reports shared

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</thead>
<tbody>
<tr>
<td>Isoniazid 100mg Tablet</td>
<td>102</td>
<td>51</td>
<td>2.0</td>
<td>49.6</td>
<td>48.6</td>
<td>47.6</td>
<td>46.6</td>
<td>45.6</td>
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<tr>
<td>Isoniazid 300mg Tablet</td>
<td>-</td>
<td>275</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
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<tr>
<td>2-FDC RH (150/75) 150+75mg Tablet</td>
<td>19,339</td>
<td>2,417</td>
<td>8.0</td>
<td>7.0</td>
<td>6.0</td>
<td>5.0</td>
<td>4.0</td>
<td>3.0</td>
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<tr>
<td>2-FDC RH (60/30) 60+30mg Tablet</td>
<td>10,423</td>
<td>1,158</td>
<td>9.0</td>
<td>8.0</td>
<td>7.0</td>
<td>6.0</td>
<td>5.0</td>
<td>4.0</td>
</tr>
<tr>
<td>3-FDC RHE (150/75/275) 150+75+275mg Tablet</td>
<td>1,355</td>
<td>226</td>
<td>6.0</td>
<td>5.0</td>
<td>4.0</td>
<td>3.0</td>
<td>2.0</td>
<td>1.0</td>
</tr>
<tr>
<td>3-FDC RHZ (60/30/150) 60+30+150mg Tablet</td>
<td>2,206</td>
<td>552</td>
<td>4.0</td>
<td>3.0</td>
<td>2.0</td>
<td>1.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>4-FDC RHZE (150/75/400/275) 150+75+400+275mg Tablet</td>
<td>4,894</td>
<td>1,224</td>
<td>4.0</td>
<td>3.0</td>
<td>2.0</td>
<td>1.0</td>
<td>0.0</td>
<td>8.8</td>
</tr>
<tr>
<td>Streptomycin 1000mg Powder/Vial</td>
<td>2,542</td>
<td>363</td>
<td>7.0</td>
<td>6.0</td>
<td>5.0</td>
<td>4.0</td>
<td>3.0</td>
<td>2.0</td>
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Intervention

% First line Drugs stocked out

<table>
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<tr>
<th>Month</th>
<th>Stocked Out</th>
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<tbody>
<tr>
<td>December 2013</td>
<td>17%</td>
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<tr>
<td>Jun-14</td>
<td>17%</td>
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Current 2nd Line Drugs stock status

Facility stock status monitoring done for MDR TB sites
Factors Affecting Availability

National level challenges

• Unfulfilled Government procurements
• Delay in order preparation process
• Late receipt of patient data from facilities
• Introduction of new treatment guidelines
Factors Affecting Availability

Warehouse distribution challenges
- Re-supply a mixture of push-pull system – INH 300mg experience
- Difference between warehouse AMC and morbidity based AMC

Facility level challenges
- Non-ordering by facilities – SPARS intervention
- Lack of facility stock status data for FLDs
## Interventions to Address the Challenges

<table>
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<tr>
<th>Issue</th>
<th>Intervention</th>
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<td><strong>1. Unfulfilled Government procurements</strong></td>
<td>• Continued lobbying with MOH senior management</td>
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<td>• In case of national stock out - Facility redistribution coordinated at</td>
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<tr>
<td></td>
<td>national level – Kanamycin experience</td>
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<td><strong>2. Internal country delays during order preparation</strong></td>
<td>• Start the process as early as three months before the GDF lead time</td>
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<td><strong>3. Facility level challenges</strong></td>
<td>• Implementing partners support facilities to place timely and quality orders</td>
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<td>• In the process of developing the web-based ordering system to increase</td>
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<td>data visibility</td>
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<td></td>
<td>• SPARS – supervision performance assessment and recognition strategy</td>
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<td></td>
<td>• Rx solution and Computerization of high level facilities</td>
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<td><strong>4. Introduction of new treatment guidelines</strong></td>
<td>• Pharmacy division is in the process of developing national standard</td>
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<td>operating Procedures to guide the process</td>
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<td>• From experience, Phased roll out of new guidelines is advised, starting</td>
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<td>with high volume facilities</td>
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## Interventions to Address the Challenges

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</table>
| All four issues above | • Monthly Commodity Security Group (CSG) meetings  
• National stock status is presented every month; issues are presented to MOH senior management  
• Cost-benefit analysis for QPPU activities, e.g. savings made on potential expiries |
| Challenges with QuanTB  
• Manual process of procurement planning  
• Cannot output procurement cost by specific period except by pre-set procurement period | Proposed solution  
• Review the tool to address all the challenges  
• Address the tedious manual supply planning |
Lessons, Conclusion and Way Forward

Lessons learnt
• Strong collaboration between QPPU and MOH programs is key
• Commodity security group with authority makes a huge difference

Conclusion
• QPPU establishment and commodity security group have minimized waste
• QuanTB tool contributes to the optimum use of available resources

Way forward
• Build facility level capacity – TB performance improvement strategy
• Document benefits of QPPU such that it is government supported
• Strengthen reliability of information
• Move from push to pull system