Assessing the Total Health Commodities Financial Needs for Health Facilities in Tanzania

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TECHNICAL ASSISTANCE - TANZANIA
Tanzania’s supply chain system consists of multiple stakeholders providing various health commodities & funding.
Despite significant improvement in the supply chain over the decades, unavailability of medicines has continued to be a major block into realizing the intended population health of Tanzanians.

Major factors attributable to these frequent stock outs has been inadequate financing and operational inefficiencies among others.

Lack of a total/ holistic approach in estimating the total health commodities financial needs, makes it unclear whether:

1. the current funding envelope from all sources is sufficient to cover total needs, or
2. better management of direct funds to health facilities will realize efficiency gains and hence minimizing any financial gap that may exist.
USAID Global Health Supply Chain Program supports the development of agile, robust and sustainable health supply chains

Team PwC is USAID’s partner for delivering the Global Health Supply Chain Technical Assistance in Tanzania.

Work under this program began in June 2016 and covers four main areas to improve medicines availability and the health status of Tanzanians.

1. Provide strategic planning and implementation assistance
2. Improve delivery of health commodities at service sites
3. Broaden stakeholders understanding and engagement of the supply chain system
4. Strengthening enabling environments to improve supply chain performance
The total health commodities financial needs assessment will provide insights into facility level needs

**Purpose:** Assess the range of funding sources available at a facility and compare to the total commodity needs for each facility

**Assessment Objectives:**
1. Assess representative total health commodities financial needs for a health facility
2. Identify available funds to cover the financial needs estimated for health facility
3. Determine Medical Stores Department (MSD) market share
4. Define any financial gaps in current scenario or efficiency gains that can be recognized through proper management of funds
A three-phased approach was used to conduct the assessment

<table>
<thead>
<tr>
<th>Prepare &amp; Train</th>
<th>Collect &amp; Analyze</th>
<th>Summarize &amp; Present</th>
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<tbody>
<tr>
<td><strong>Summary</strong></td>
<td>Prepare data collection tools and train data collectors</td>
<td>Collect data and analyze commodity financial needs for health facilities</td>
</tr>
<tr>
<td><strong>Objectives</strong></td>
<td>• Identify <strong>sampling strategy</strong> to determine which health facilities will be included in the study</td>
<td>• <strong>Collect data</strong> using developed data collection tools</td>
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<td>• Evaluate <strong>scope of health commodities</strong> to be included in the study and timeframe to be used for analysis</td>
<td>• <strong>Gather data</strong> from data collectors and aggregate information</td>
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<td>• Develop and pilot <strong>data collection tools</strong> to evaluate health commodity needs for health facilities</td>
<td>• <strong>Clean data</strong> received to account for missing data and ensure dataset is uniform prior to conducting data analysis</td>
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<td>• <strong>Train</strong> data collection teams using formulated tools</td>
<td>• <strong>Perform data analysis</strong> to understand health commodity needs and funding sources</td>
</tr>
</tbody>
</table>
Data was collected from 152 facilities covering on average 133 unique commodities per facility for fiscal year 2016 – 2017

**152**

Health Facilities

Public health facilities and faith based organizations across 14 regions including:
- 78 Dispensaries
- 49 Health Centers
- 25 District Hospitals

10 facilities across 1 zone participating in the prime vendor model

72 facilities across 6 regions participating in Results Based Financing

**133**

Average Unique Commodities Ordered per Facility

The assessment covered the following systems and commodity types:
- ILS System
- ARV System
- TB and Leprosy System
- Vaccines
- Medical Equipment and Supplies

The number of commodities managed on average were:
- Dispensary – 100 commodities
- Health Center – 143 commodities
- District Hospital – 219 commodities

**650**

Total Data Collection Days

Data collection was performed by 50 data collectors from MOHCDGEC, PORALG, and GHSC

Data collection was performed from February 14 – March 2, 2018 with the following average data collection time:
- Dispensary – 1.4 day
- Health Center – 2.0 days
- District Hospital – 3.6 days
Based on the estimated average total health commodity financial needs, TZS 2,055B allocated for the health sector in fiscal year 2016 – 2017 would only cover the needs of district and lower level health facilities.

### Total Health Commodity Financial Needs

_Est. Avg.: TZS 530M_

**Facility Type**
- Dispensary
- Health Center
- District Hospital

**Financial Needs (TZS in millions)**
- Dispensary: 171
- Health Center: 443
- District Hospital: 1,775

### Contributing Factors

- Number of patients served
- Population catchment area
- Count & type of medical staff
- Facility location - rural vs. urban

### Supply Chain Implications and Future Recs.

1. Rationalization of products
2. Pharmacoeconomics interventions
3. Strategic sourcing by facilities
4. Stronger cost analysis by Council Health Management Teams (CHMTs) / District Executive Directors (DEDs)

*Indicates statistical significance (p value < 0.05)*

*Indicates no statistical significance (p value > 0.05)*
Estimated available funds account for 11 – 33% of total health commodity financial needs.

**Total Funds Available**

*Est. Avg.: TZS 127M*

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<table>
<thead>
<tr>
<th></th>
<th>Financial Needs</th>
<th>Total Budget</th>
<th>Total Funds</th>
</tr>
</thead>
<tbody>
<tr>
<td>MOHCDGEC</td>
<td>11</td>
<td>26</td>
<td>135</td>
</tr>
<tr>
<td>Funds for MSD Purchases</td>
<td>1</td>
<td>5</td>
<td>167</td>
</tr>
<tr>
<td>Council Funds</td>
<td>8</td>
<td>40</td>
<td>296</td>
</tr>
<tr>
<td>Health Facility Funds</td>
<td>19</td>
<td>70</td>
<td>598</td>
</tr>
<tr>
<td>Total</td>
<td>19</td>
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Indicates no statistical significance (p value > 0.05)

**Contributing Factors**

- Results Based Financing Participation
- Count & type of medical staff
- Facility location - rural vs. urban

**Supply Chain Implications and Future Recs.**

1. Universal Health Coverage Agenda
2. Clarification of funding formula
3. Allocation of complimentary funds for medicines
MSD Market Share was estimated at 7% indicating an opportunity to capture additional market share to cover unmet needs.

**MSD Market Share**  
*Est. Avg.: 7%*

- 19%
- 7%
- 3%
- 71%

**Contributing Factors**
- Prime Vendor Participation
- Commodity Availability
- Essential Medicine List Limitations

**Supply Chain Implications and Future Recs.**
1. Improvement opportunities identified in HSCR & CIP
2. Revision of products list
3. Customer segmentation

*Indicates statistical significance (p value < 0.05)*
*Indicates no statistical significance (p value > 0.05)*
Eleven facilities (7%) did not have a financial gap, seven of which participate in the Results Based Financing program scheme.

**Financial Gap**

*Est. Avg.: TZS 69M*

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<tr>
<td>Dispensary</td>
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<td>Health Center Facility Type</td>
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<td>District Hospital</td>
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**Contributing Factors**

- Number of patients served
- Population catchment area
- Count & type of medical staff
- Facility location - rural vs. urban

**Supply Chain Implications and Future Recs.**

1. Opportunities to expand Results Based Financing
2. Direct Health Facility Financing allocation formula specific for health commodities
3. Use of AIDS Trust Fund and others for purchase of health commodities
4. Further costing analysis

*Indicates statistical significance (p value < 0.05)*

*Indicates no statistical significance (p value > 0.05)*
Strengths and limitations were noted following study completion

**Strengths**

- Active engagement, input, investment and collaboration from the Government of Tanzania, MOHCDGEC and PO-RALG
- Use of scientific methods which can be replicated for future analysis
- Experienced data collectors who had familiarity with data collection sources

**Limitations**

- Reduced sample size due to time and budget required for data collection
- Potential gaps in data due to manual data entry and missing records for specific facilities or sources
- Limited visibility to dispensing registers which may impact values for data such as stock-out days
Overall, the study findings indicate the following recommendations:

- Funds increase for health commodities to reduce gap
- MSD market share increase
- Evidence based commodities financing

In addition, the data from the study can be used to inform future initiatives by USAID, Government of Tanzania and GHSC.

This assessment will inform numerous future activities including direct health facility financing and national forecasting activities.