

SEAM Tanzania

Establishing an Appropriate Quantification Model for a Prime Vendor System

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The accurate determination of annual requirements of drugs and supplies for each participating hospital facility (PHF) was seen as a critical step in developing a prime vendor system. Without a resilient quantification process, a drug supply system is susceptible to both shortages and excess inventory. In an effort to avoid these problems, the Evangelical Lutheran Church in Tanzania and the Mission for Essential Medical Supplies (ELCT/MEMS) and SEAM Tanzania carried out a quantification exercise in February–March 2003 to collect drug and supply consumption data from the northern zone hospital facilities that would be part of the prime vendor system.



Working with the ELCT/MEMS team

Objectives of the Exercise

- To review quantification methodologies in order to find an appropriate quantification method for determining the requirements of PHFs
- To conduct a quantification exercise to obtain an accurate forecast of requirements of the PHFs, to be included in the request for proposal (RFP)

Methodology Selection

Three quantification methods were reviewed—

- Consumption method (predicting future need based on past consumption)
- Morbidity method (predicting the drugs and supplies needed to treat common diseases based on standard treatment guidelines and epidemiological data)
- Adjusted/projected consumption method

The consumption method was selected because of anticipated difficulties in collecting morbidity data; however, morbidity data were collected where available to assist in corroboration of results.

Preparation Phase

- Reviewed and agreed on methodology for quantification
- Developed appropriate data collection tools
- Developed method of data entry and analysis (using Quantimed software developed by Management Sciences for Health)
- Selected data collectors
- Determined the number of teams, team members, and team leaders
- Trained data collection team members
- Agreed on facilities where the quantification exercise would be conducted
- Established representative list of supplies to be quantified
- Agreed on additional data (e.g., demographic, communication, information technology) to be collected via a facility profile questionnaire
- Agreed on the period for collecting historical data
- Developed and pretested data collection forms
- Shared the developed tools with PHFs
- Set dates for data collection

Data Collection Phase

Staff from ELCT/MEMS and SEAM Tanzania visited PHFs to conduct additional advocacy meetings with key facility staff and collect the following data—

- Monthly consumption for 12 months
- Time-out-of-stock data for each item
- Most recent prices paid and sources
- Malaria morbidity data for 12 months
- Facility profiles

Data Management Phase

- “Cleaned” and organized data
- Entered and validated data using Quantimed
- Used Quantimed to facilitate the data management, analysis, and report generation portions of the exercise

Findings

- Some facilities keep good consumption data using stock cards, while others have poor records or none. Where records were incomplete or nonexistent, consumption was estimated by using available data and/or consulting with the staff.
- At least four hospitals depended heavily on donations to meet drug and supply needs.
- There was a more significant dependency on donors than expected—60% of total needs on average, varying from 6% to 100% among hospitals.
- Value of drugs and supplies actually used was double what had been anticipated, averaging TZS 50 million, rather than TZS 25 million, per hospital per annum.
- To ensure accurate determination of needs in the future, PHFs must improve record keeping for both consumption and morbidity data.
- Quantimed proved to be a useful tool in obtaining fast and accurate forecasting of requirements.
- Available morbidity data were inadequate to forecast requirements.

Follow-up

- Data collection results/reports were confirmed and shared with individual PHFs.
- Quantification exercise reports were validated by all PHFs.
- The compilation of finalized pooled quantities was tendered through the prequalified vendors.
- Donors will be approached to determine whether they are prepared to channel their support through ELCT/MEMS rather than giving directly to individual hospitals.

Training of Data Collectors

Data collectors were trained in—

- ✓ What is quantification?
- ✓ The rationale for quantification
- ✓ When do we quantify?
- ✓ Common methods for quantifying needs for drugs and medical supplies
- ✓ Data collection needs for various quantification methods
- ✓ Use of data collection forms employed during quantification
- ✓ Skills needed to support a quantification exercise, including training in the use of Quantimed software