The Effect of Standardization on the Procurement & Quantification of Laboratory Commodities

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Overview

SCMS laboratory procurement history

Current procurement challenges

Country cases

Standardization and its effect on procurement

Quantification of laboratory commodities

Laboratory quantification tool

Impact of standardization on quantification
Number of Unique Laboratory & Test Kit Products Delivered by SCMS to Date *by Project Year*

- **Y1**: 64
- **Y2**: 1,063
- **Y3**: 3,320

The graph shows the increase in the number of unique items delivered from Year 1 (Y1) to Year 3 (Y3).
Number of Unique Laboratory & Test Kit Products Delivered by SCMS to Date by Country
Current SCMS Laboratory Procurements

Number of Times a Laboratory Product was Ordered
February 2008 - February 2009

- Ordered Once, 54%
- Ordered twice, 17%
- 3-4 orders, 13%
- 6-9 orders, 13%
- 10+ orders, 3%
Procurement Challenges

A significant amount of time is spent sourcing new items, setting up item codes and processing orders for countries with laboratory systems that are not standardized.

It is difficult for field staff to determine what is required and the detailed specifications for each item with such a huge proliferation of items.
Cote d’Ivoire Laboratory Procurement History

- Platforms: 5 CD4, 10 Hematology, 11 Chemistry
Ethiopia Laboratory Procurement History

- Platforms: 3 CD4, 6 Hematology, 6 Chemistry

- Once, 63%
- Twice, 20%
- More, 17%
Haiti Laboratory Procurement History

Platforms: 2 CD4, 1 Hematology, 1 Chemistry

- More, 49%
- Once, 29%
- Twice, 22%
Lessons Learned on Procurement Considerations

Laboratory system must assessed to determine the potential to standardize commodities requirements

Research the international market to identify equipment that meets the needs of the country and then harmonize equipment in country to reduce the number of line items procured

Develop specifications prior to the purchase of equipment to ensure as few as possible duplicate items are procured
Benefits of Standardization in Procurement

Standardized commodities, defined as frequently procured line items, make it easier for vendors to stock commodities and improved availability.

Commonly procured items also lead to improved delivery lead times as better relationships are forged with manufacturers and they are better placed to anticipate orders in the pipeline.
Logistics Systems: More than Just Procurement

Policy

Inventory Management
- Storage
- Distribution

Serving Customers

LMIS
- Pipeline Monitoring
- Organization & Staffing
- Budgeting
- Supervision
- Evaluation

Quantification & Procurement

Product Selection

Quality Monitoring

Adaptability
What is Quantification?

Quantification has 2 parts:

• **Forecasting demand**: estimating quantity required of each product to meet demand for the forecast period

• **Supply planning**: using quantities forecasted to determine quantities to procure and the supply pattern (delivery timing)
The Quantification Process

1. FORECAST PRODUCT CONSUMPTION OR USE
   - ADJUST FORECAST PARAMETERS
     - INCREASE FUNDING?
       - NO
         - MOBILIZE RESOURCES
       - YES
         - FUND SUFFICIENT?
           - NO
             - ESTIMATE PROGRAM REQUIREMENTS
               - ESTIMATE COST
                 - COMPARE FUNDS AVAILABLE TO COST ESTIMATE
                   - FORECASTed PRODUCT CONSUMPTION OR USE
                   - MOBILIZE RESOURCES
                   - DEVELOP SUPPLY PLAN
                   - YES
At present, this tool does not create a distribution plan or manage inventory. It is intended to generate a morbidity forecast to inform system-wide procurement decisions.
The quantification tool allows for the input of a large number of variables including:

- percentage of patients receiving a specific test
- wastage
- testing schedules
- patient attrition & migration rates
- equipment availability.

These variables must be included in any comprehensive quantification but are otherwise difficult to apply using a non-automated process.
Differences in Quantifying ARVs vs. Diagnostics

For diagnostics, the varying nature and number of materials to quantify make the process more challenging.

Unlike a treatment regimen, multiple reagents, consumables, equipment and methodologies are required to perform a single test.

Short shelf life and cold chain storage must also be considered in supply planning.

Supply planning is more complex with hundreds more commodities with varying characteristics.
Effect of Standardization on Quantification

Significantly reduces the number of commodities required to be forecast

More accurate supply plans can be generated as less time is spent managing a plethora of commodities

Wastage and stock outs can be minimized with improved focus on stock management

More rational adjustment to budgetary constraints as various consumption rates can be monitored more closely
Lessons Learned on the Impact of Standardization

Standardization can help improve procurement by reducing the burden and frequency of procuring multiple line items.

Standardization is a key first step in optimizing and strengthening laboratory supply chains, which should be followed closely by quantification.

Though important, it is not the only logistics goal countries should strive for to establish responsive, efficient and sustainable supply chains.
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