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# **Standardization: Prerequisite for Optimizing Laboratory Supply Chains**

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## What is Standardization?

Standardization is the process of setting:

- Test menus,
- Test techniques,
- Operating procedures, and
- Laboratory equipment

**.....for each type of test at each level of the system**



## Opportunities for Standardization

- Greater global attention to increasing availability of laboratory supplies to provide critical services
- Increased funding available for procurement of laboratory supplies and strengthening laboratory supply chains





## Country Experiences

### Kenya, Uganda (2004-2005)

- Initial request for logistics system design and quantification of laboratory supplies
- Standardization identified as a pre-requisite for both activities

### Ghana, Ethiopia (2007)

- Standardized equipment in place at time of logistics system design

### Zambia (2007)

- As in Kenya, Uganda, standardization identified as pre-requisite for logistics system design and quantification
- Initial workshop set the stage for future standardization work undertaken by SCMS



## Benefits of Standardization

- Rational decision making in product selection, forecasting, quantification and procurement
- Manageable supply chain by streamlining the number of laboratory products
- Affordability through economies of scale
- Agile supply chain allowing redistribution of supplies to reduce stock imbalances
- Efficiency in training and management of staff
- Quality assurance of testing by increasing reliability and consistency of results



## Steps in Standardization

1. Assess existing test menus, techniques, standard operating procedures and equipment at facilities from all levels
2. Hold consensus building workshop with stakeholders from all levels
3. Update laboratory policy documents with new standards
4. Determine timeframe for reviewing and updating standards
5. Disseminate and implement standards at all facilities at all levels



## Challenges in Standardization

- Rapidly changing technology
- Involving and reaching consensus among all stakeholders
- Allocating time and resources to implement transition plan
- Changing provider behavior to comply with new standards
- Compliance with existing long term contracts with suppliers



## Standardization in Kenya

- Role was to provide laboratory logistics TA to 16 facilities
- March 2005: System design workshop highlighted need for standardization
  - Draft policy from 1995, never implemented
- July 2005: Lab quantification workshop for 16 facilities changed to national standardization exercise



## Achievements of Standardization in Kenya

Consensus achieved for most test menus, techniques, and equipment for district and provincial levels

- Enabled selection of reagents and consumables for each test
- Resulted in reduction from 2,500 to 300 items





## Challenges of Standardization in Kenya

Significant debate on standardizing hematology machines

- 6 different systems existed at 16 sites, no consensus reached
- Unable to quantify and procure reagents and consumables for hematology





# Standardization Process in Zambia



# Standardization Process in Zambia

## May 2006

- Development of Operational Plan for the National Laboratory System
  - Formed Technical Working Groups

## September 2006

- National Lab Commodity Quantification
  - Agreement on tests by level
  - Identification of techniques for each test
  - Agreement on equipment to include
- MOH commitment to standardization





# Achievements of Standardization in Zambia

- Agreement on criteria for reviewing, evaluating and standardizing equipment
- Definition of expected tests and techniques by level
- Review of laboratory testing SOPs by level
- Identification of equipment by level
- Definition of 185 priority lab commodities for inclusion in the National Lab Commodity Logistics System





# Challenges of Standardization in Zambia

Challenge	Approach/Result
Non-standard equipment existing in system	Reagents not provided through the MOH supply chain
Service providers not following standard treatment guidelines	National review of laboratory technical SOPs (dissemination pending)
Acceptance of partner donations of non-standard equipment	Parallel supply chains for reagents and consumables for non-standard equipment





# Successful Outcomes of Standardization in Zambia

- Negotiated maintenance contracts together with purchase of reagents
- Stock transfers from one facility to another saved \$30,000 in potential losses from expiry
- Avoided stockout at MSL by transferring excess stocks from one facility to central warehouse
- Decreased procurement costs through economies of scale
- Initiated roll out of national laboratory logistics system for 185 priority products based on standardization



# Key Lessons Learned

- Standardization is a process
  - Requires time and resources
- The standardization process must be collaborative
  - Participation of stakeholders from all levels
- Standardization is a key first step in optimizing and strengthening laboratory supply chains

# Thank You



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