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Baseline supply chain costs determination as a prerequisite for performance based investment and sustainable partnership in the transformation of Public Health supply chain systems:

A case study of Kaduna State Ministry of Health and Human Services Sustainable drugs supply scheme (SDSS)/free maternal and child health (FMCH) Public Health intervention.

Presenters:

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Introductory Background

- ❑ Nine independent/parallel Health supply chain (SC) systems for selected essential health commodities (EHCs) operate in Kaduna State.
- ❑ The donor supported public health interventions (covering HIV/AIDS, Malaria, Tuberculosis, RMNCH), only account for about a quarter of the EHC Stock keeping unit (SKU) identified from the 2010 Nigeria essential medicines list (EML).
- ❑ The remaining Three-quarters ($\frac{3}{4}$) public health EHC SKU's (over 450 individual items) run through a highly inefficient and ineffective health SC system.



Introductory Background II

With multiple actors (Health facilities, MoH and political stakeholders) assuming duplicating and conflicting roles in ensuring availability of these $\frac{3}{4}$ EHCs SKU;

- The high level of stock out of commodities in this category is a recurring phenomenon.
- When and where available, their prices are not affordable by the community, majority of whom cannot afford the most basic health insurance cover
- Understanding the costs of the SC system responsible for the bulk of the EHCs SKU, would promote and support evidence based decisions on;
 - i. Health SC systems design,**
 - ii. SC systems integration,**
 - iii. Continuous performance improvements and**
 - iv. Sustainable financing for Health SC systems.**



Introductory Background III

- ❑ The Kaduna State Ministry of Health and Human Services, is committed to transform the health SC responsible these EHCs into an integrated, effective, efficient, visible and well-coordinated health supply chain that would quantifiably promote better health outcomes

As a first step,

- ❑ the Kaduna State MoH leadership, approved the establishment of a baseline cost of the SC system for these EHCs.

With Funding from BMGF and PSA's technical assistance,

- ❑ The Kaduna State MoH conducted a meticulous study, to determine the “as is” baseline costs of the SC systems responsible for the SDSS/FMCH Health Intervention Scheme.

Stakeholders Engaged

- 2 days workshop in March 2016
- Consensus generation and buy in from all relevant stakeholders.
- Selection of **46 [Tracer Essential Health Commodities](#)**

Supply Chain Costing Tool

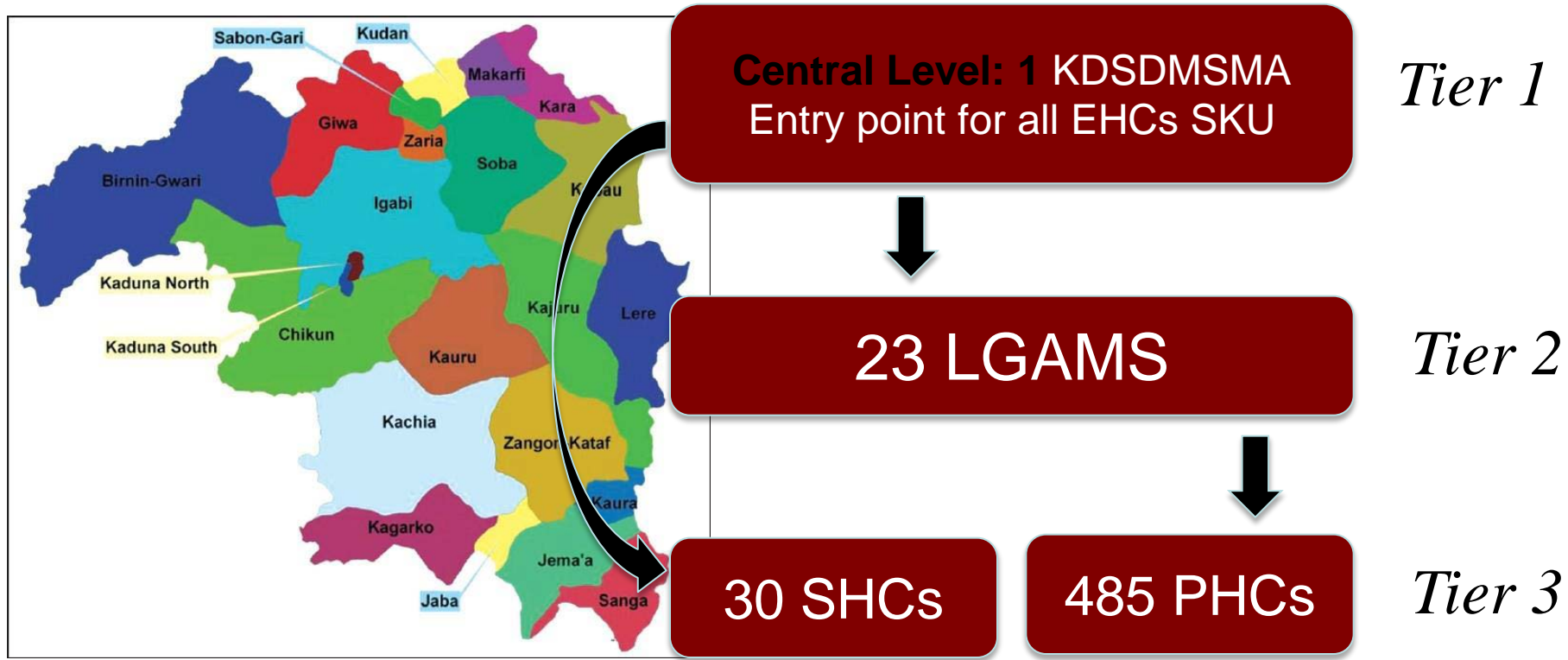
- The USAID | DELIVER PROJECT Supply Chain Costing Tool (SCCT) was selected for the study
- Costs were analysed across Four discrete supply chain functions:
- **Procurement, Storage, Transportation, and Management**

Data collection and analysis

- **15** State Govt. Staff gathered data from **25** sample Facility visits.
- **Tier 1:** State level **1, CMS**
- **Tier 2:** LGA Level;
- **6 Local Govt. Medical Stores (LGAMS)**
- **Tier 3:** Service Delivery Level;
- **6 secondary healthcare (SHC) and**
- **12 primary healthcare centres (PHC)**



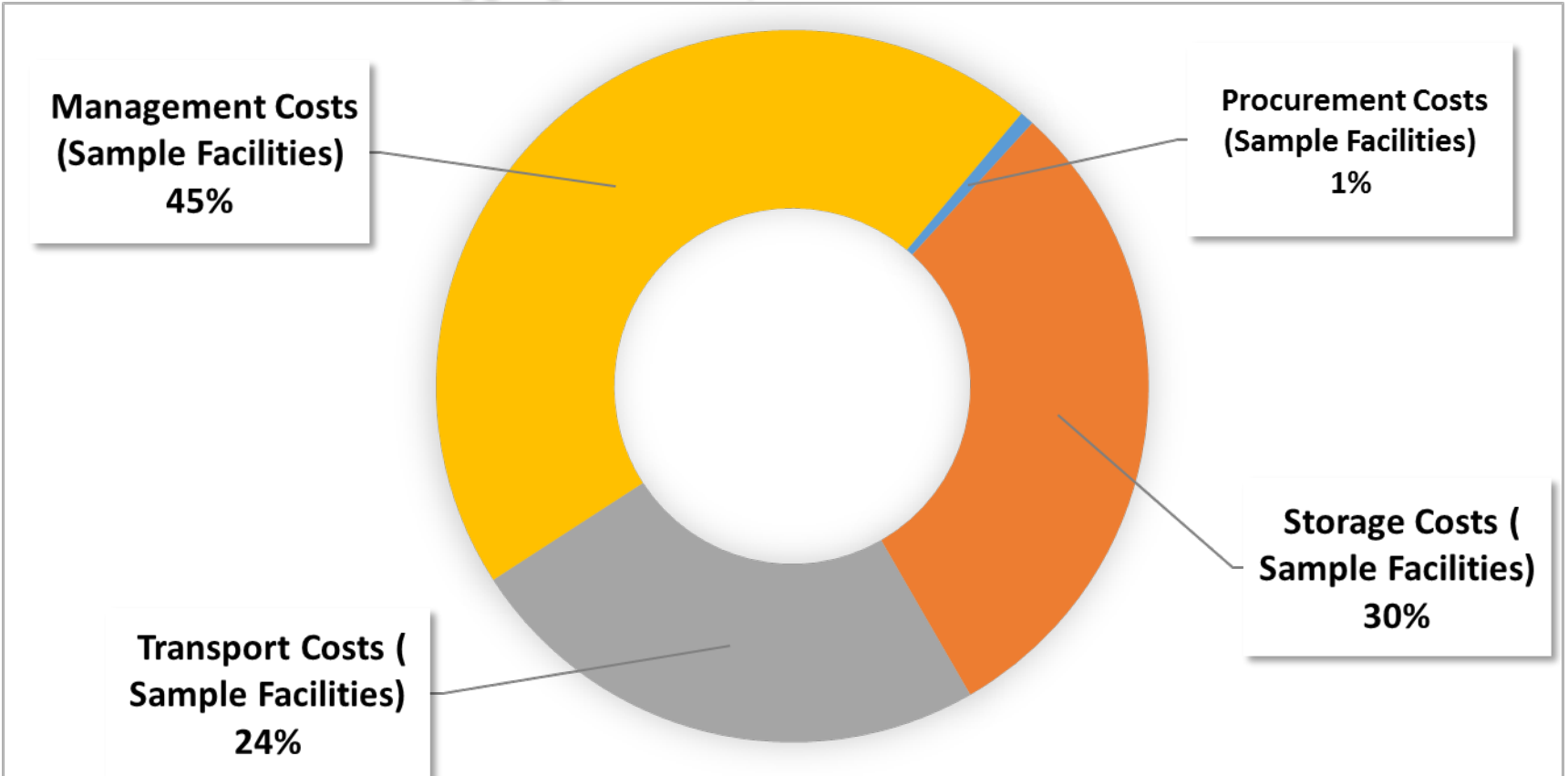
Findings 1: Kaduna State Health Supply Chain Structure





Findings 2 : Tiers 1, 2 and 3

Across all Three Tiers: management costs accounted for 45% of the total supply chain costs for the 25 sampled facilities, storage costs for 30%, and transports costs at 24%.
At 1% of aggregate cost, procurement accounted for the least cost.





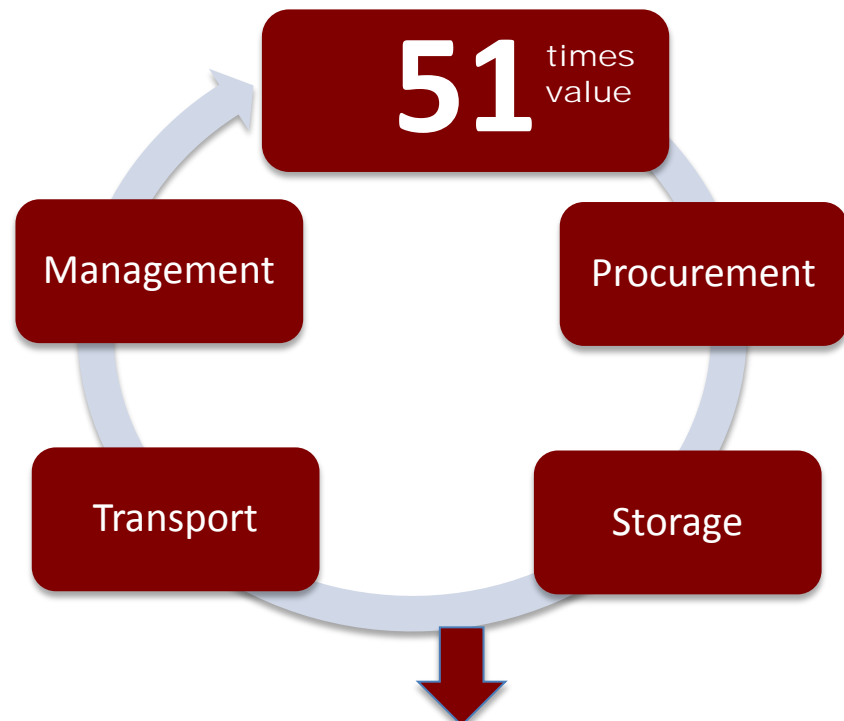
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Findings 3 : Tier 1

Analysis of the costs findings showed that it cost the KSDMSMA CMS, ₦51,198.85 to completely execute all four supply chain functions for a ₦1,000 worth of any health commodities.



₦1,000 worth of any health commodities



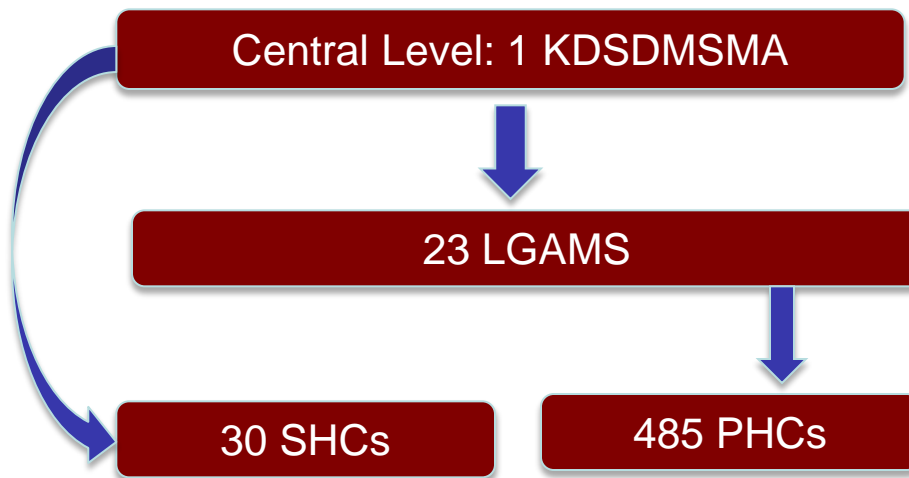
The highest cost for Tier 1 was attributable to storage (64%) due to high labour costs for marginally standardised process variations and non compliance with SOPs.



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Findings 4 : Tier 1

All SDSS/FMCH program-supported health commodities are expected to be procured and initially stored at the **KDSDMSMA**, and then distributed through a pick-up by the lower-level facilities (LGAMS, SHCs and PHCs).



The results of this study indicated that the **KDSDMSMA was responsible for only 20% of the total value of commodities** passing through it to the sampled LGAMS, SHCs, and PHCs.

Further investigation is required to understand why EHCs enters into Tiers 2 and 3 from external sources, outside Tier 1: KDSDMSMA



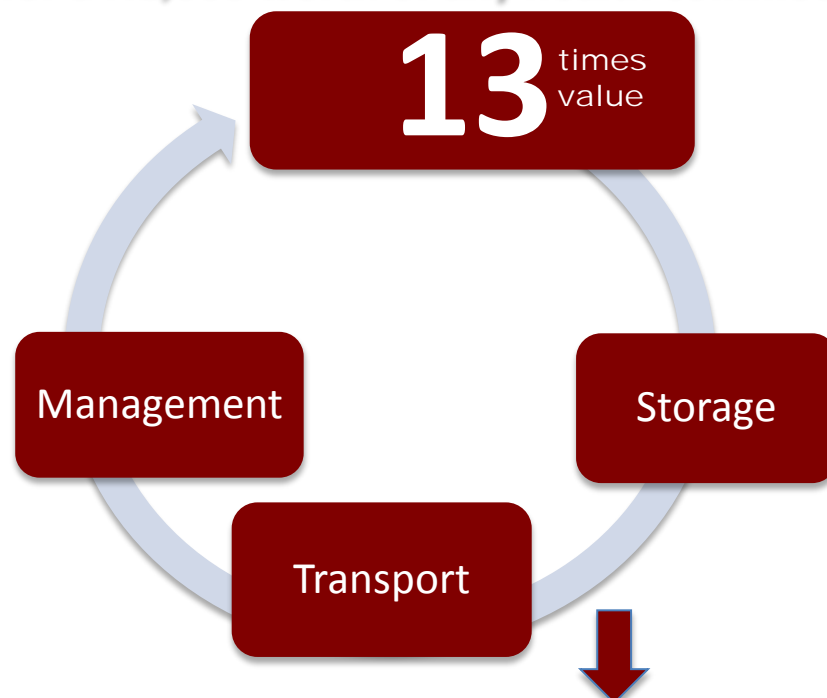
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Findings 5 : Tier 2 LGAMS

Analysis of the costs findings showed that it cost an LGAMS average of, **₦12,689.26** to completely execute all Three supply chain functions for a **₦1,000** worth of any health commodities.



₦1,000 worth of any health commodities



The highest cost for Tier 2 was attributable to **Management (42%)** due to high management labour costs for logistics information systems, quantification and operating costs.



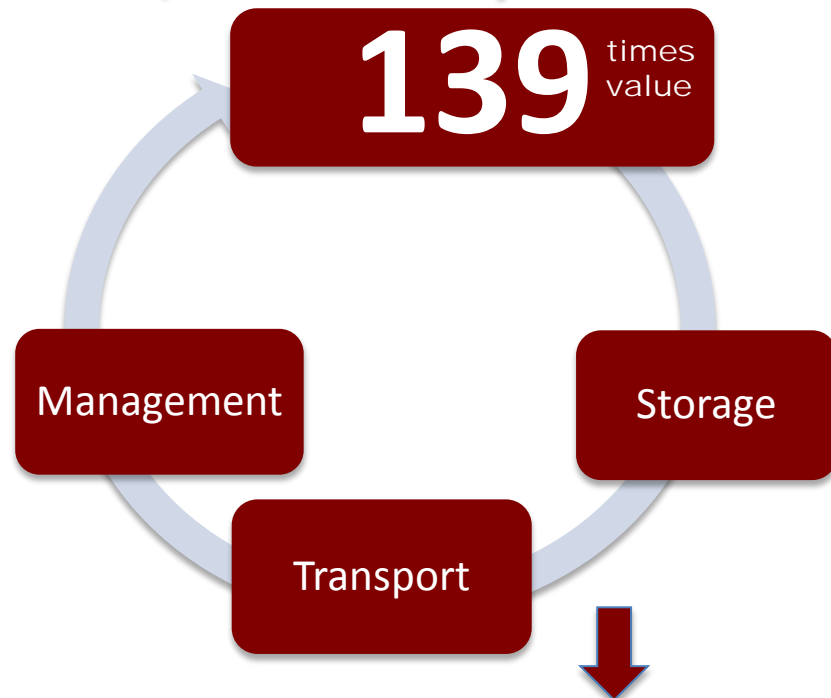
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Findings 6 : Tier 3 SHC

Analysis of the costs findings showed that it cost the an SHC average of, **₦139,398.49** to completely execute all Three supply chain functions for a **₦1,000** worth of any health commodities.



₦1,000 worth of any health commodities



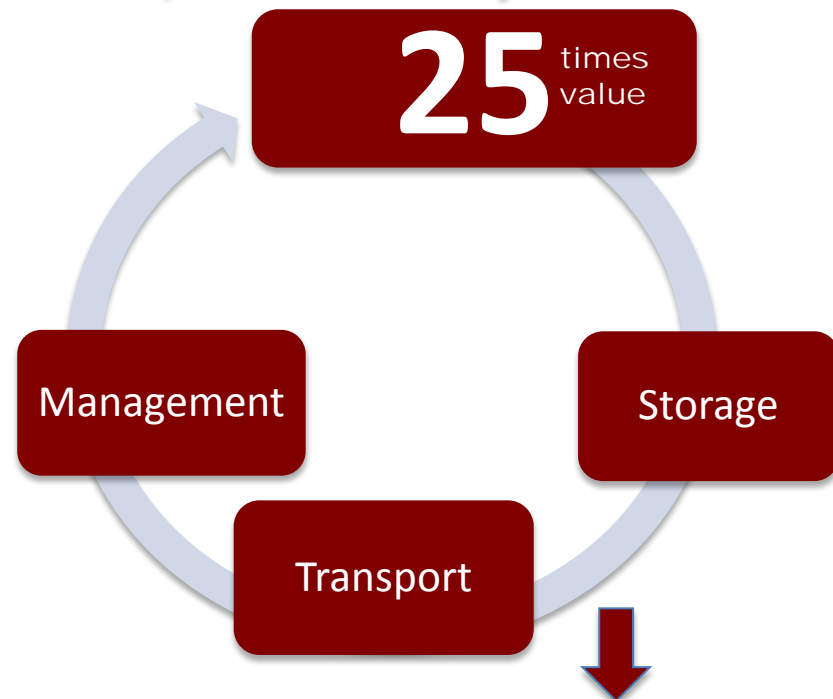
The highest cost for Tier 3 SHC was attributable to **Management (48%)** due to high management operating costs.

Findings 7 : Tier 3 Rural PHC

Analysis of the costs findings showed that it cost the a Rural PHC average of, ₦24,914.23 to completely execute all Three supply chain functions for a ₦1,000 worth of any health commodities.



₦1,000 worth of any health commodities



The highest cost for Tier 3 Rural PHCs was attributable to Transportation (82%) due to PHCs staff per diem transporting EHCs from the LGAMS.



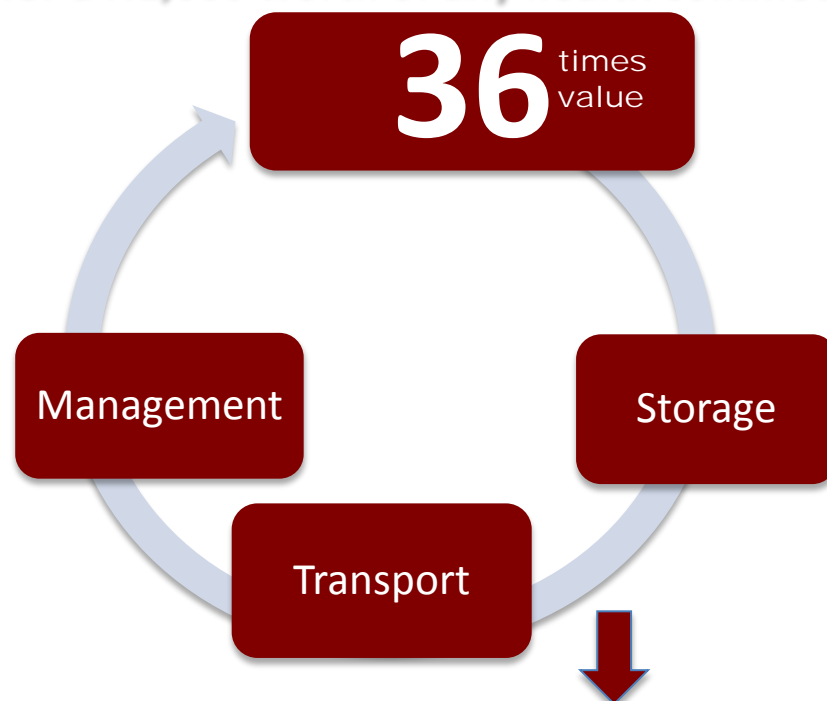
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Findings 8 : Tier 3 Urban PHC

Analysis of the costs findings showed that it cost the an Urban PHC average of, ₦36,031.78 to completely execute all Three supply chain functions for a ₦1,000 worth of any health commodities.



₦1,000 worth of any health commodities



The highest cost for Tier 2 was attributable to Management (84%) due to high management labour costs for logistics information systems.



Nine Lessons Learned

1: The supply chain costing process requires Government Stakeholders commitment and adequate time allocation \

2: The strategic placement of senior officials from the state KSDMSMA in the driver's position was key for the successful supply chain baseline costing study.

3: The reception received by the Govt. Field Data Collection teams varied across the Supply Chain tiers.



Nine Lessons Learned II

4: **There is a dearth of facility personnel at the PHCs.**

This means that such staff have to multi-task in different supply chain functions- store-keeping and between non-supply chain related tasks- clinical duties.

5: **Poor inventory management and record-keeping practices,** especially at the PHCs, makes it difficult to obtain and aggregate records of procurement and/or consumption/utilization of commodities.

6: **Some facility personnel interpreted the survey administration as being an auditing exercise.** This made them unconvincing, even after the purpose of the activity was explained.



Nine Lessons Learned III

Practices identified across Kaduna state SDSS/FMCH Health SC system

7: The reports on **the use of personal funds for execution of supply chain related activities** was very common especially at the PHCs.

8: **Utility bills, maintenance, security etc.** even at central level within the Ministry of Finance **were being paid in bulk sum and on arrears** basis making it hard to clearly tease out what payment periods have been covered.



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Nine Lessons Learned IV

9: Wide dissemination across State based and National Stakeholders engendered Kaduna State MoH leadership approval of the baseline SC costs findings.





Next Steps

The Baseline SC costing represents a first step towards Health SC systems transformation in Kaduna state:

- ❑ The Kaduna state Hon. Commissioner of Health, approved development of a State Memo to the **59th National council on Health** for Nationwide adaptation of baseline SC systems costing.
- ❑ A 3-month health SC systems redesigning and planning follows
- ❑ In year 2017, a 6-month pilot/test phase of the new SC system will be rolled out in Kaduna State through funding from BMGF



Conclusions

Determination of any public health SC systems costs highly recommended for:

- participants from countries where government counterparts at national and sub-national levels are already **experiencing thinning donor funding**
- Countries that are ready to take measures that would **attract valuable investments** from the commercial private sectors into their public health SC systems.
- **Value driven partnerships** towards **sustainable improvements** in individual, communities and nations health outcomes.
- **Quantifiable and continuous** Health SC systems **performance improvement**. A baseline cost is the critical starting point.



Conclusions

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**Thank you for your attention
Questions?**