



Nigeria - Using logistics process assessments to improve campaign quality

Godwin Aidenagbon GHSC-PSM
Joel Akilah NMEP, Nigeria

Outline of Presentation

- Nigeria: key health indicators
- The LLIN distribution logistics function
- Progress with mass ITN distribution
- Nigeria: LLIN distribution performance
- LLIN distribution logistics processes
- The campaign logistics process flow
- Logistics challenges during campaigns
- Logistics process improvements
- Conclusion
- Acknowledgements

Nigeria: key indicators

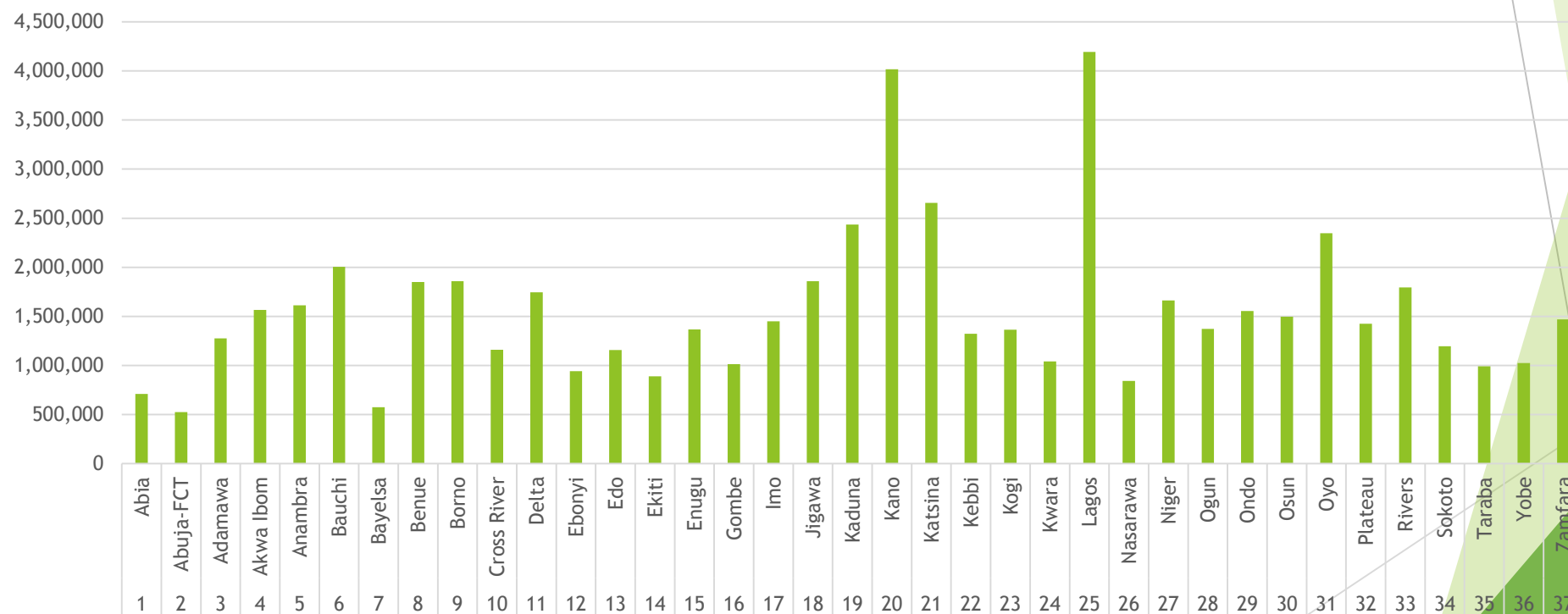
- ▶ Population: 186 million (2016 mid year projection)
- ▶ Area: 923,768 square km
- ▶ Total GDP: \$341.572 billion
- ▶ Per capita : \$2,548
- ▶ Infant Mortality: 108 deaths/1,000 live births
- ▶ Life expectancy: 54.5 years
- ▶ Malaria related mortality(U5): 30%
- ▶ Malaria related Maternal mortality: 11%
- ▶ Population with 1 net in household: 69%
- ▶ LLIN distributed as at January 2016: **116,492,821 (NMEP)**

The Logistics function during mass campaigns.

- ▶ The logistics function relates to those successive steps that must be followed to ensure that ITNs are available in the right quantity and quality and the right time and place for issuance to final beneficiaries. The logistics function covers processes that ensures that:
 - ▶ ITNs have been properly quantified, procured and delivered.
 - ▶ Adequate, safe and secured storage has been provided
 - ▶ ITNs are **transported** along the supply chain up to delivery to final beneficiaries
 - ▶ Appropriate documentation for storage, transportation and distribution LLIN (LMIS)
 - ▶ There is accountability from storage through distribution to reverse logistics.

Progress with mass ITN distribution (May 2009 - May 2013)

- First national ownership scale up through mass campaign (May 2009 - May 2013)
 - 57,773,194 LLINs distributed
 - All States in Nigeria covered



Progress with ITN Replacement distribution (LLINs distributed annually since 2009)

- ▶ LLIN *replacement* campaign implemented to replace LLINs that reached their EOL.
- ▶ **58,719,627** LLINs distributed in 22 States. 14 States and FCT remaining. 2016 plans: GF/NMEP (6 States 16, 357,256) and PMI/NMEP (3 states 6.5 million). **22,857,256** LLINs to be distributed by end of 2016. Average of LLIN distributed per year since 2009 is **17 million**
- ▶ LLINs distributed since 2009 to date is **116,492,821**

Year	2009	2010	2011	2012	2013	2014	2015	2016
LLINs distributed	12,072,978	16,871,677	17,000,225	4,874,426	9,443,949	29,352,037	19,893,339	6,984,190

Nigeria: LLIN performance

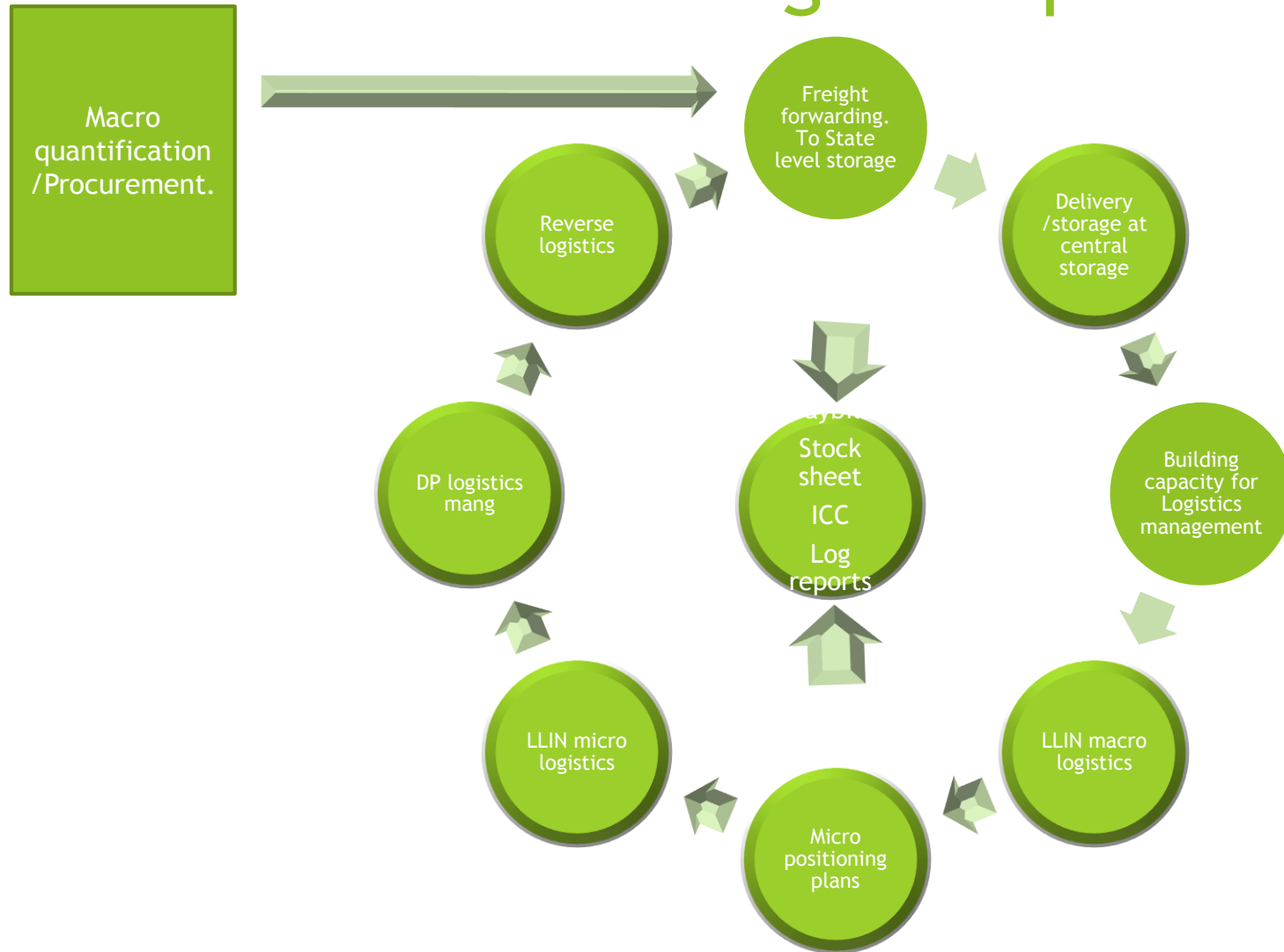
Nigeria Malaria Indicators	DHS 2008	MIS 2010	DHS 2013	MIS 2015
All-cause under-five mortality rate	157/1,000	NA	128/1,000	
Proportion of households with at least one ITN	8%	42%	50%	69%
Proportion of households with one ITN for every 2 persons (UC)				35%
Proportion of children under five years old who slept under an ITN the previous night	6%	29%	17%	44%
Proportion of pregnant women who slept under an ITN the previous night	4%	34%	16%	49%

LLIN distribution logistics processes

- Eight core (8) logistics processes are required to make LLINs available to the final beneficiaries:

SN	PROCESS	DESCRIPTION
1	Freight management and delivery at national level	Delivery at port, clearing and forwarding to state level state level
2	LLIN storage	Getting suitable storage facilities, development of storage assessment criteria, conducting the assessments, selecting ideal and adequate storage.
3	Building personnel capacity for LLIN logistics management	Training personnel to manage storage and transport/distribution activities of the campaign
4	LLIN macro logistics	Taking the nets to local government storage
5	Development of micro positioning plans	Planning process for taking the right quantity of nets to distribution point storage
6	LLIN micro logistics	Transportation of the nets to distribution point storage
7	DP logistics management	Ensuring supply of correct quantity of LLINs at DPs during distribution days
8	LLIN reverse logistics	Returning left over nets to storage

LLIN distribution logistics process flow



Logistics processes and challenges

- Reports of campaigns implemented between 2009 till date have been reviewed.

sn	Processes	Identified issues
1	Planning and implementing procurement activities. Freight management and delivery at national level	Delayed arrival of nets for planned distribution. Loss of nets at port, in transit, at ware house
2	LLIN storage at central level	Losses at warehouses, inappropriately stored
3	Building personnel capacity for LLIN logistics management	Poor personnel selection process, weak capacity for campaign logistics management
4	LLIN macro logistics (transport to local government level)	Losses/accountability by 3PLs, LLIN tracking/reconciliation issues
5	Development of micro positioning plans	Data not available to perform precise micro positioning.
6	LLIN micro logistics (transport to DP level)	LLIN tracking and accountability. Poor positioning of nets at DP (excess versus shortfall in positioned quantities)
7	DP logistics management	Reconciling distribution with logistics data
8	LLIN reverse logistics	Management of left over nets

Logistics process improvements

1: Procured quantities not able to meet State needs (under quantification/procurement). Quantification has been mostly based on population projections with attendant inaccuracies. Delayed arrival of nets for planned distribution. Between when orders are placed and when campaigns commence, there are several uncertainties.

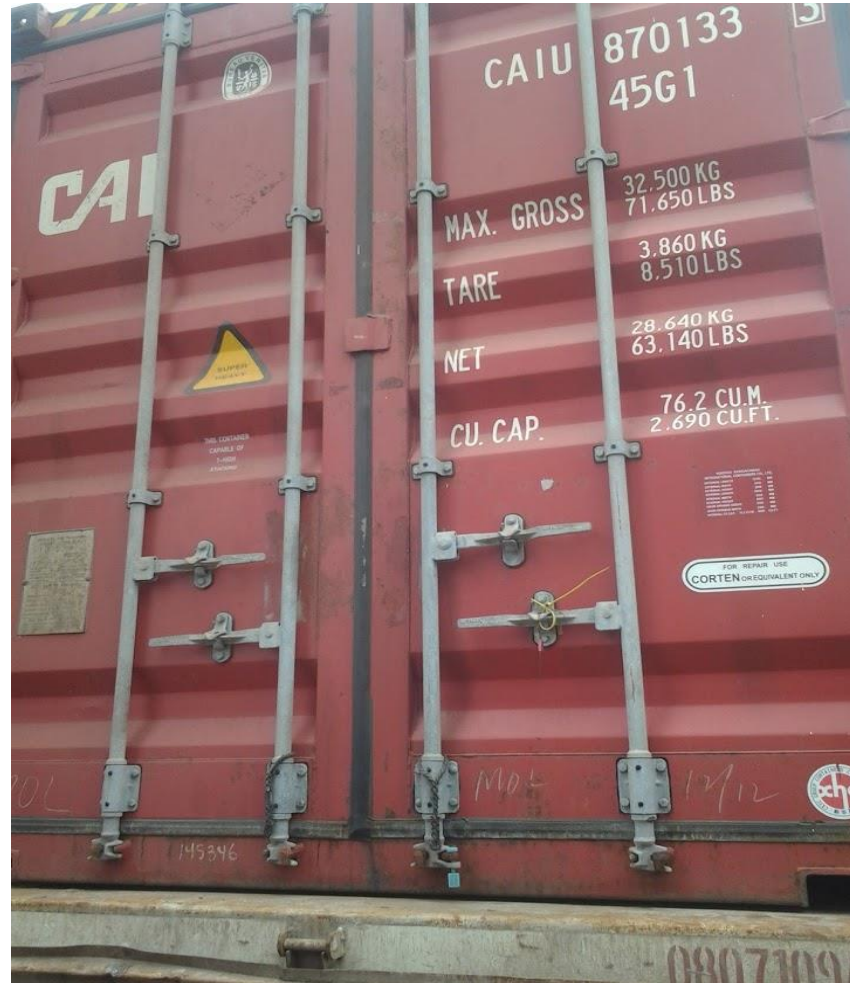
- Introduction of buffers of 10% to cater for odd numbered households as well as emergency and other needs.

Since 2014/15, Pipeline monitoring tools are now widely available and used to monitor status of procurement and delivery and take decisions for campaign timing. This has been useful in better management of campaign plans and implementation.

Logistics process improvements

2: Loss of nets at port, in transit (during transport), and at transit warehouse. There have been cases of net shortages in containers, loss at ports, in transit and at transit warehouses.

- ▶ Serial numbers for individual bales inside the container (nos 1 -750)
- ▶ Appointment of freight forwarder with responsibility to monitor loading of ITN at manufacturer's premises. Freight forwarder locks up containers with seals. Seal serial numbers documented and shared.
- ▶ Freight forwarder engaged to implement door- to-door (from manufacturer to state delivery point) delivery of ITN.
- ▶ ITNs are transported from port of entry to State warehouses in security convoys.
- ▶ Container seals broken only at State warehouses and with proper documentation.



Logistics process improvements

3: Losses at warehouses, inappropriately stacked bales. Break-in, theft etc.

- ▶ Clear understanding of States role to assume responsibility for security of ITNs
- ▶ Additional security at warehouses prior to distribution
- ▶ Update of elements of warehouse selection criteria to prioritize security considerations.
- ▶ Review of existing warehouse SOP for better warehouse operations



Logistics process improvements

4: Weak capacity for logistics process management. Poor personnel selection/absence of training materials/tools etc.

- ▶ Selection process inclusive of participation by NMEP and partners
- ▶ Training/orientation at all level
- ▶ Development of training manuals specific to logistics tasks (How to do it leaflets)
- ▶ Hands on training, increase in training period for conveyors
- ▶ Orientation for 3PLs and their conveyors
- ▶ Additional orientation for warehouse managers



Logistics process improvements

5: Poor management of macro logistics. Loss of ITN in transit, LLIN tracking/reconciliation issues/ failure to deliver nets on time to LGA storage

- ▶ 3PLs engaged well ahead of time through a competitive process. Only the best is engaged.
- ▶ 3PLs provided with orientation on logistics processes and expectations of the role prior to commencement of assignment.
- ▶ Establish performance management system for 3PLs using a [delivery tracker](#).
- ▶ Alignment of 3PL PODs with campaign waybills

S/No	Cluster	Vendor	LGA	Number of Bales delivered from state level	Number of Bales to be positioned after HH mob	Number of DPs targeted	Timeframe										Percentage no of bales dispatched	Percentage No. of DPs covered
							16-Oct-16		17-Oct-16		18-Oct-16		19-Oct-16		20-Oct-16			
							Number of Bales delivered	Number of DPs covered	Number of Bales delivered	Number of DPs covered	Number of Bales delivered	Number of DPs covered	Number of Bales delivered	Number of DPs covered	Number of Bales delivered	Number of DPs covered		
1	A	TUVX	a	1,720	1,720	25	961	13	663	8							94%	84%
2	A	TUVX	b	1,834	1,834	28	775	10	883	15							90%	89%
3	A	TUVX	c	1,568	1,568	25	350	2	648	10							64%	48%
4	A	TUVX	d	3,988	3,988	64	1,070	22	1,931	30							75%	81%
5	A	TUVX	e	1,997	1,997	32	552	7	898	13							73%	63%
6	A	TUVX	f	1,866	1,599	24	244	4	792	12							65%	67%
7	A	TUVX	g	2,855	3,122	48	1,553	22	1,569	26							100%	100%
8	A	TUVX	h	1,710	1,710	26	963	15	745	10							100%	96%
9	A	TUVX	i	4,315	4,315	69	2,212	29	1,660	32							90%	88%
			Totals	21,853	21,853	341	8,680	124	9,789	156	0	0	0	0	0	0		
						Actual daily achievements bales cumulative	8,680	124	18,469	280	18,469	280	18,469	280	18,469	280		
						Actual daily achievements % cumulative	40%	36%	85%	82%	85%	82%	85%	82%	85%	82%		
						Expected daily targets bales cumulative	4,371	68	8,741	136	13,112	205	17,482	273	21,853	341		
						Expected daily targets % cumulative	20%	20%	40%	40%	60%	60%	80%	80%	100%	100%		
						OVERALL PERFORMANCE			% Bales delivered	% DPs covered								
									85%	82%								

Logistics process improvements

6: Delayed/poor positioning of ITNs at DP. Household registration data not ready at the time allocated for positioning of nets/LLINs under/over positioned.

- ▶ Contracting of 3PLs done with [microplanning data](#)
- ▶ Additional days allowed for collation of household registration data
- ▶ Use of LGA verified data (extreme cases)
- ▶ Introduction of inventory management tool at DP with provision for adjustment between DP and wards.

7: Weak LLIN tracking and accountability at DPs. Missing nets at DPs/weak DP management.

- ▶ DP supervisor retrained on LLIN tracking tools prior to distribution days
- ▶ Distribution tally sheet linked to DP inventory control card
- ▶ Sustain daily review meeting during distribution days.

Logistics process improvements

8: Non reconciliation of logistics data with distribution data.

- ▶ Inventory control card deployed to record DP store issues and receipts
- ▶ Appropriate entries reflected in Tally sheets to capture ITN issued to DP on daily basis.

9: Management of left over nets.

- ▶ Tools developed to ensure reconciliation of distribution and logistics data ([Logistics report](#), [Distribution report](#), [Final Reconciliation report](#)). These are preparatory documentation for commodity management audit.
- ▶ Full reconciliation of logistics and distribution data carried out immediately after last distribution day.
- ▶ ITN balances at all levels in the distribution chain identified and verified. Physical balances independently verified.
- ▶ Quantities to be retained at facilities determined based on average monthly consumption (AMC) for 4 months for the ANC facilities DP only. Only balances beyond this are returned to central storage.

Conclusion

The effort here is to identify challenges and to share experience on how the issues can be resolved. Approaches and methodologies may be context specific, but to a large extent they are able to clear the way to ensure that the key component of the logistics function is achieved; that is to make nets available in the right quantity and quality at the right place and time with zero cost to the final beneficiaries.

Acknowledgements

- ▶ Dr. Bala Audu National Coordinator, NMEP, Nigeria
- ▶ Anthony Anammah GHSC-PSM, Nigeria
- ▶ Dr. Ezekiel Akintunde GHSC-PSM
- ▶ Godson Kingsley NMEP, Nigeria
- ▶ Hamisu Hassan AMP Consultant