

Improving ITN delivery visibility through use of digital tools in Zambia's 2023 mass campaign

February 2024



Overview

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3. Implementation
4. Lessons learnt
5. Recommendations



Photo Credit: AGL

Context: Challenges in previous ITN campaigns

Delivery issues in Zambia 2017 and 2020 mass campaigns

- Delays in receiving delivery progress status on deliveries in HFs
- Delays in addressing discrepancies
- Legibility of Proof of Delivery (PODs) issued on arrival of nets
- Limited traceability of delivery locations (no coordinates)
- Incomplete data capturing at various levels of supply chain (e.g. missing batch numbers)

Overall, these issues had a negative impact on campaign delivery and provided distraction from other key focus areas.

AMF, Global Fund and PMI collaborated with NMEC to plan improvements for the 2023 mass campaign with regards to procurement, shipping, warehousing and distribution.

Delivery Note

Driver Name: Handwritten Date: 20/1/2024
Driver NRC: Handwritten Vehicle Reg. No: B001
Driver Signature: _____ Facility Name: Handwritten

Quantity	Goods description
<u>250</u>	<u>Balls of nets</u>
<u>50</u>	<u>House nets</u>

Recipient Name: Handwritten Date: 20/1/2024
Title: Handwritten NRC: Handwritten
Signature: Handwritten Phone #: Handwritten

Facility date stamp:
REPUBLIC OF ZAMBIA
MINISTRY OF HEALTH
7 JAN 2024
MAMBUNGO HEALTH POST
P.O. BOX 590009, MITCHELL

Context: Challenges in previous ITN campaigns

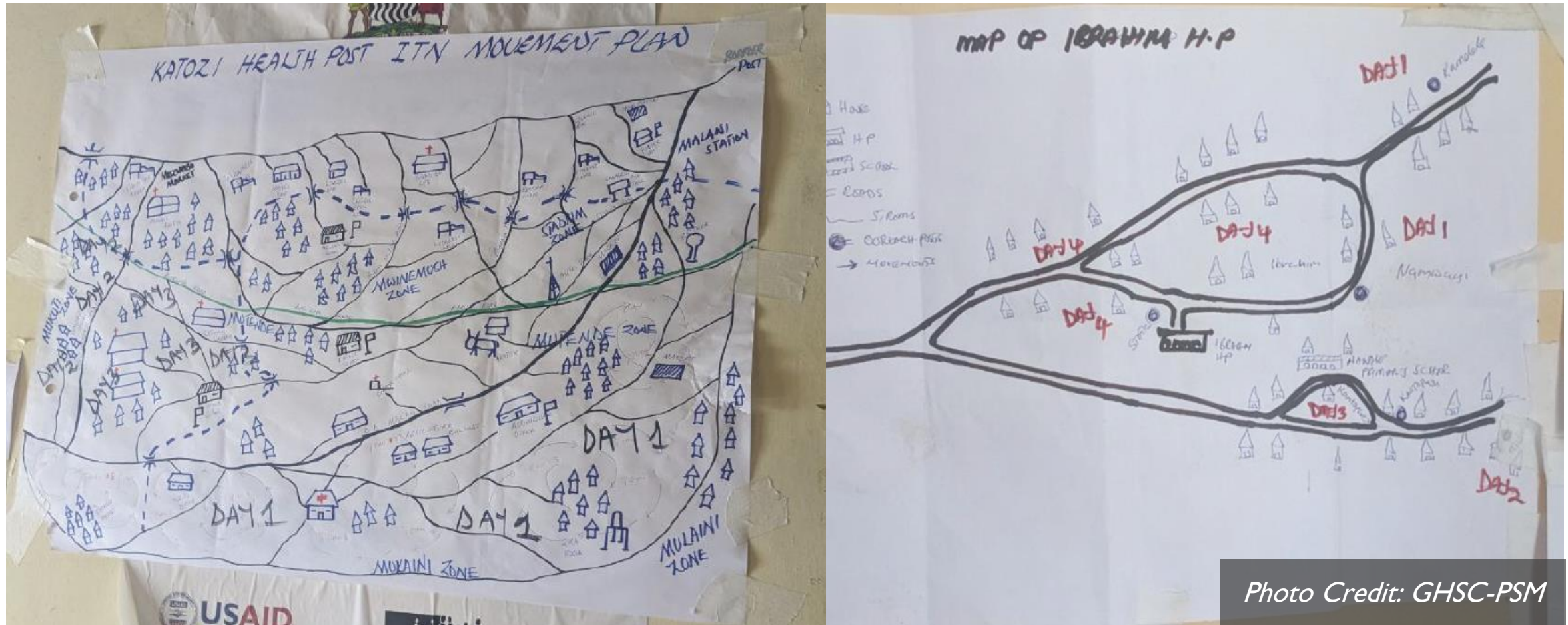


Photo Credit: GHSC-PSM

Objectives: Improving visibility of ITN deliveries in 2023 campaign

Operations: Increasing visibility to enable management

- Quicker and clearer information on deliveries
- Resolve discrepancies faster and deter incidents
- Improve review of PODs
- Improve traceability of locations and bales to last mile distribution
- Capitalise on Tracenet GSI barcode development

Fundraising: Building confidence for donors

- 6.3m nets funded by 5,190 AMF individual donors
- Real-time reporting builds donor trust and engagement



Photo Credit: PMI

Implementation: Collaborating with private sector and focusing on localisation

The RFI (request for information) process investigated local vendors' capabilities:

- Local newspaper campaign
- Site visits to vet vehicles and understand digital tools
- Identifying vendor knowledge of province-specific challenges

Identified 3 local vendors with requested capabilities. This enabled the following:

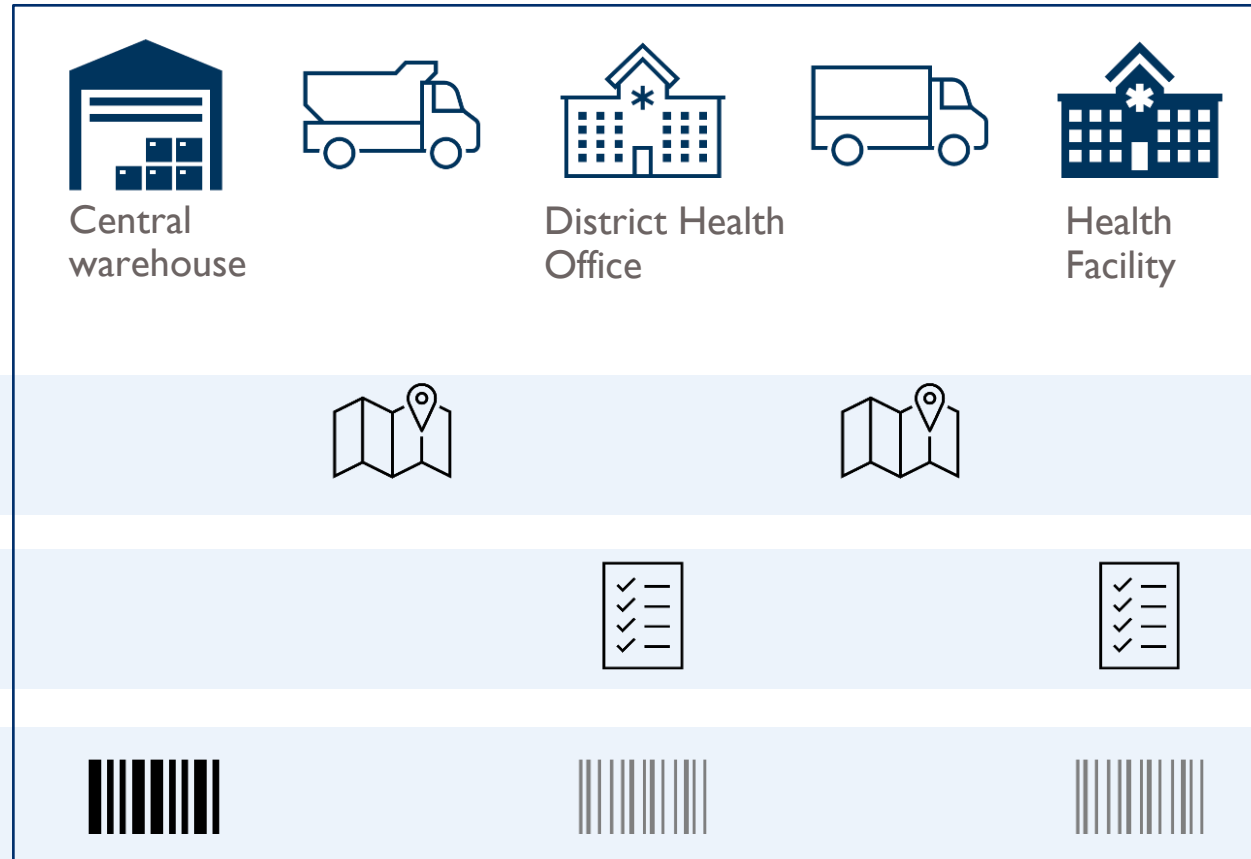
- Digital tools were provided as part of delivery contracts
- Reduced risk of overall poor performance by diversification
- Allowed for simultaneous deliveries in different provinces
- Ability to negotiate on rates



Photo Credit: PMI

Implementation: Delivering nets with ePODs & barcode scanning

Digital capabilities:



Tracking link shared after driver starts delivery on app

ePOD completed on driver's phone per delivery requiring names, signatures, GPS, photos

Barcodes scanned by warehouse at loading; planned driver to scan on arrival but scaled back

*Including offline functioning for areas with poor network.

Each transporter used a third-party app to provide these services: Telematics, Detrack & Shipday.

Implementation: Delivering nets with ePODs & barcode scanning



Photo Credit: PMI

Achievements: Significantly improved visibility & response

What went well?

- Much improved visibility of delivery progress and ability to track multiple distributions at once
- Successful live tracking and identification of drivers going off route
- Quick sharing of PODs, easily legible with extra info (photos, GPS)
- More accurate deliveries - able to make changes and corrections to the quantities, meaning reduced need for reverse logistics
- Contracted companies that already had ePOD systems in use; no need to develop or train vendors.
- Early confirmation allowed early disbursement of funds to vendors, helping avoid pauses in deliveries.
- No net losses in delivery to date, high touch tracking may have contributed deterrent effect

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NVMS
DISTRIBUTORS LIMITED

Client:
Chemomics International Inc
Chipete, Chembe, Luapula, Zambia

Shipper:
Nams Distributors Limited
Chembe DHO, Luapula, Zambia

Order No: 000550

Date: 2023.10.18

#	Code	Name	Unit	Price	Qty	Actual	Rejected	Reason for Rejection	Photo
1		LLINS Bales			78.98	78.98	0		

Weight:
Status: Delivered
Reason for Rejection:
Time: 2023.10.20 06:10 PM




Latitude: -11.8454650
Longitude: 28.5014760
Map location:

Driver: Chanda Patrick

Vehicle: BBC 8847

Name: Milton Shakalima
Signature/Photo:

Image evidencing Rejection:



Thank you for your choice!

Challenges: Real-time tracking faced minor limitations

What could have gone better?

- Small number of PODs were delayed, or did not come through email automatically
- Significant proportion of barcodes (7.8%) damaged or unusable (12,200 of 157,298 bales), as per image here.
- Barcodes scanned on loading for all deliveries but only for some on arrival – reduced due to time constraints
- Traceability to bale level only; not to individual nets
- Local vendor choice was limited to those few with ePOD experience

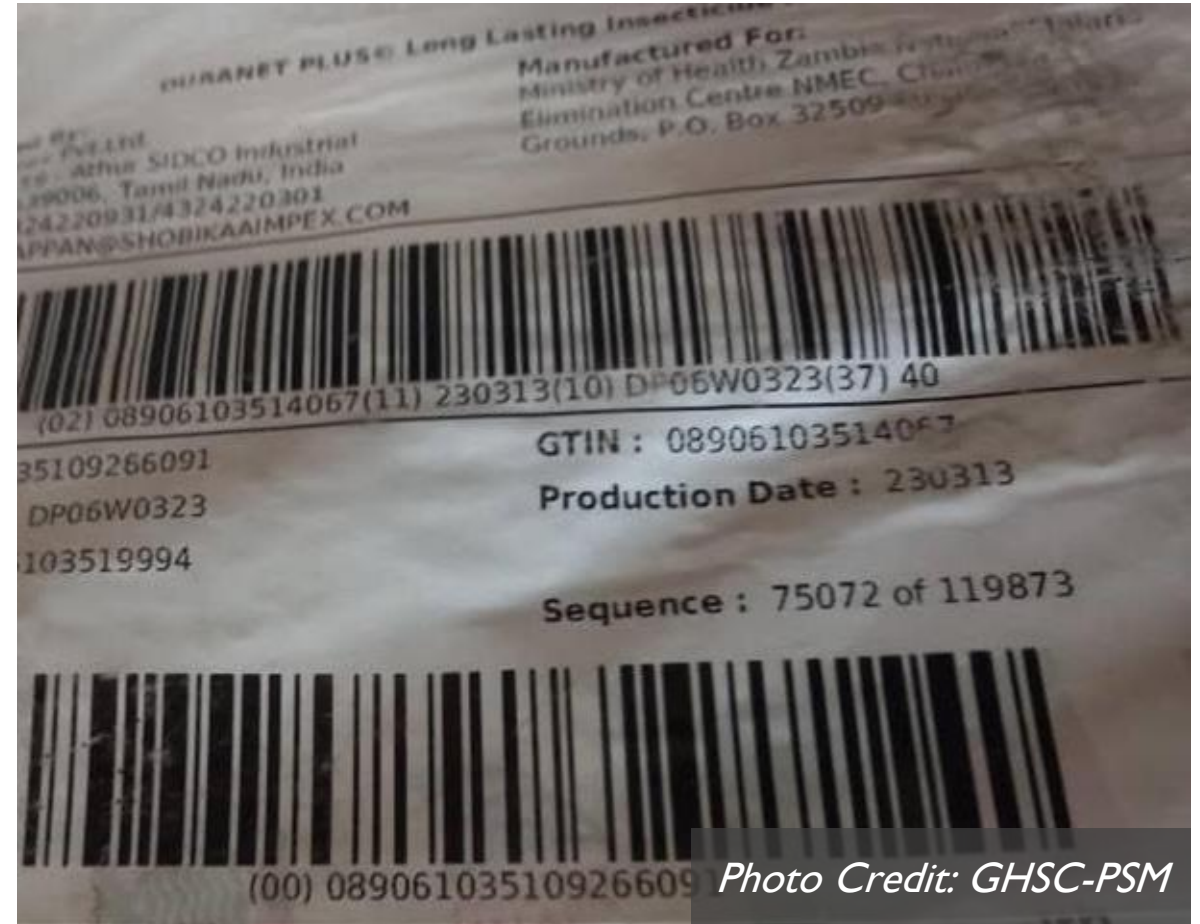


Photo Credit: GHSC-PSM

Recommendations & further opportunities for ITN visibility

Recommendations for future campaigns based on Zambia 2023:

- Ensure barcode stickers printed on bales are highly durable.
- Identify new local transporters able to provide required digital tools well in advance to campaign.
- Conduct dry runs prior to distribution start.
- Cross-check digital vs scanned PODs, especially for early deliveries.

Opportunities for further leveraging ePODs and barcodes:

- Ensure individual net traceability by scanning net labels.
- Live reconciliation of barcodes scanned (loading vs delivery).
- Leverage GPS data collected (e.g. health facilities)
- Explore embedding similar tools into existing platforms/reporting.



Photo Credit: PMI

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