The Alliance for Malaria Prevention

ITN distribution planning in a resource constrained context

Session 4: Logistics and supply chain management





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Mute your microphone when not speaking to minimize background noise

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Chat function: For quick questions or comments, please use the chat

Menti: We will have Menti questions throughout the presentation — kindly participate!

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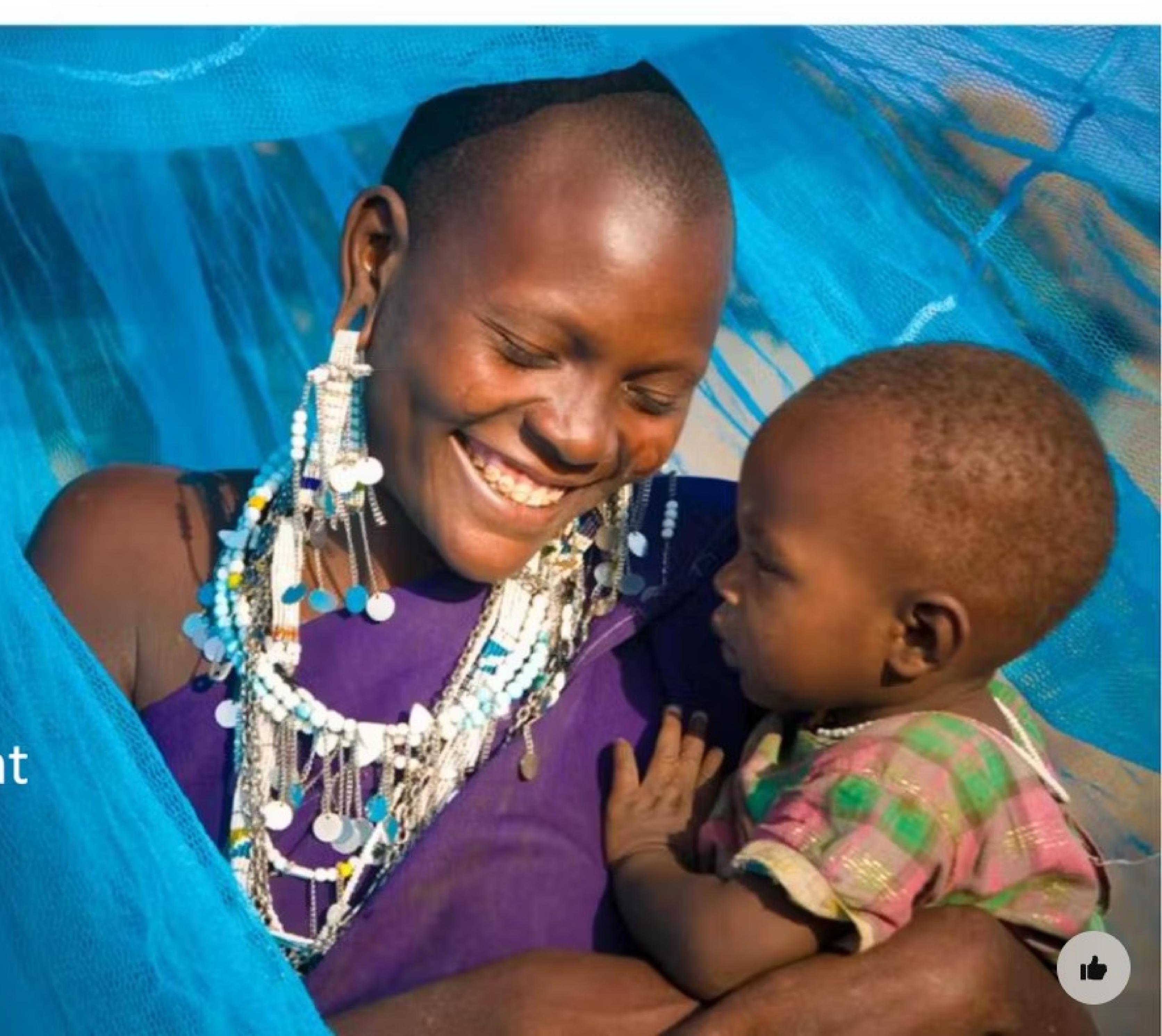
Technical support

If you experience issues, message Orianne Berraud in the chat

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Defining some terms (Oxford Reference)

• Efficiency: A measure of the ability of an organization to produce the maximum output of acceptable quality with the minimum of time, effort and other inputs (in our case, funding).

Optimization: The process of finding the best possible solution to a problem.

 Particularly important for logistics, we are looking for efficiency and optimization WITHOUT COMPROMISING OR LOSING ACCOUNTABILITY





Key logistics activities

- Macro positioning and transport plan (includes warehouse space required at each point of storage
- Waste management plan (includes the quantification of waste to be generated
- Quantification of logistics tracking tools
- Training of logistics personnel
- Warehouse assessment
- In country reception of the nets (customs clearance, inspections, etc)
- Transportation and warehousing of nets
- Microtransportion plan including the last mile logistics
- Reverse logistics (ITNs and waste)



Please indicate the logistics activities the you consider missing in the list

Digitalization/scanning

A detailed logistics plan of action

Coordination, particularly where multiple partners

Micro positioning

Risk and mitigation plan

Gestion des données logistique

Storage and transport of non ITN commodities

Satellite Distribution Points





Please indicate the logistics activities the you consider missing in the list

Recycling companies

Procurement of transport service providers

Reconciliation.

Digitalisation

procurement and contracting - materials, supplies, etc.

inventaires finaux des stock et reconciliation A detailed reverse logistics plan of action. This should include when to collect, how to collect, and where to dispose of

Numerisation et stokage





Please indicate the logistics activities the you consider missing in the list

Bale scanning at key levels of the supply chain

Logistics cost drivers

- Printing of tracking tools
- Logistics training
- Warehousing
- Transport last mile logistics
- Human resources for the logistics operations
- Logistics supervision
- Waste management
- Reverse logistics (post distribution activity)

Optimize the supply chain

- Review the current in-country supply chain:
 - Assess where there are potential efficiencies (e.g. e-training for use of tracking tools since these are standard at all levels in many cases)
 - Opt for decentralized delivery
 - Use fewer "levels" in the in-country supply chain
 - Ensure government support for warehousing at national and sub-national levels
- Additional funds sometimes needed because of the economic "bubble" created by campaigns



Optimize the supply chain - 2

- Reduce the printing of tracking tools
 - Can we consider doing things differently:
 - Assess whether the existing tracking systems and tools used for other health commodities can be used for campaign (both paper-based and digital systems)
 - Consider printing only the essential tools that will ensure proper tracking without losing or compromising accountability
 - Consider different sizes of booklets of waybills for national, subnational and last mile logistics (e.g. booklets of 20 for national level, 10 for subnational and last mile)
 - Assess which other transactions can be covered by the stock card to avoid printing of additional tools
 - Reduce the number of waybill copies per "set" from 4 to 3
 - Digitalization of the logistics tracking system is definitely one of the most efficient approaches for cost savings and efficiency without losing accountability



Which existing logistics tracking tools do you consider essential to ensure accountability?

Waybill

Stock sheet

The reconciliation tool

positioning plans

waybills

Bordereau de livraison/retour Fiche de stock Fiche d'inventaire

Bordereau de livraisons-Fiche de Gestion de stock-Fiche d'inventaires finales Stock cards/sheets, Inventory Control Cards



Which existing logistics tracking tools do you consider essential to ensure accountability?

1. The Stock card that records daily transactions/stock movement 2. A waybill that serves as proof of delivery

Waybills

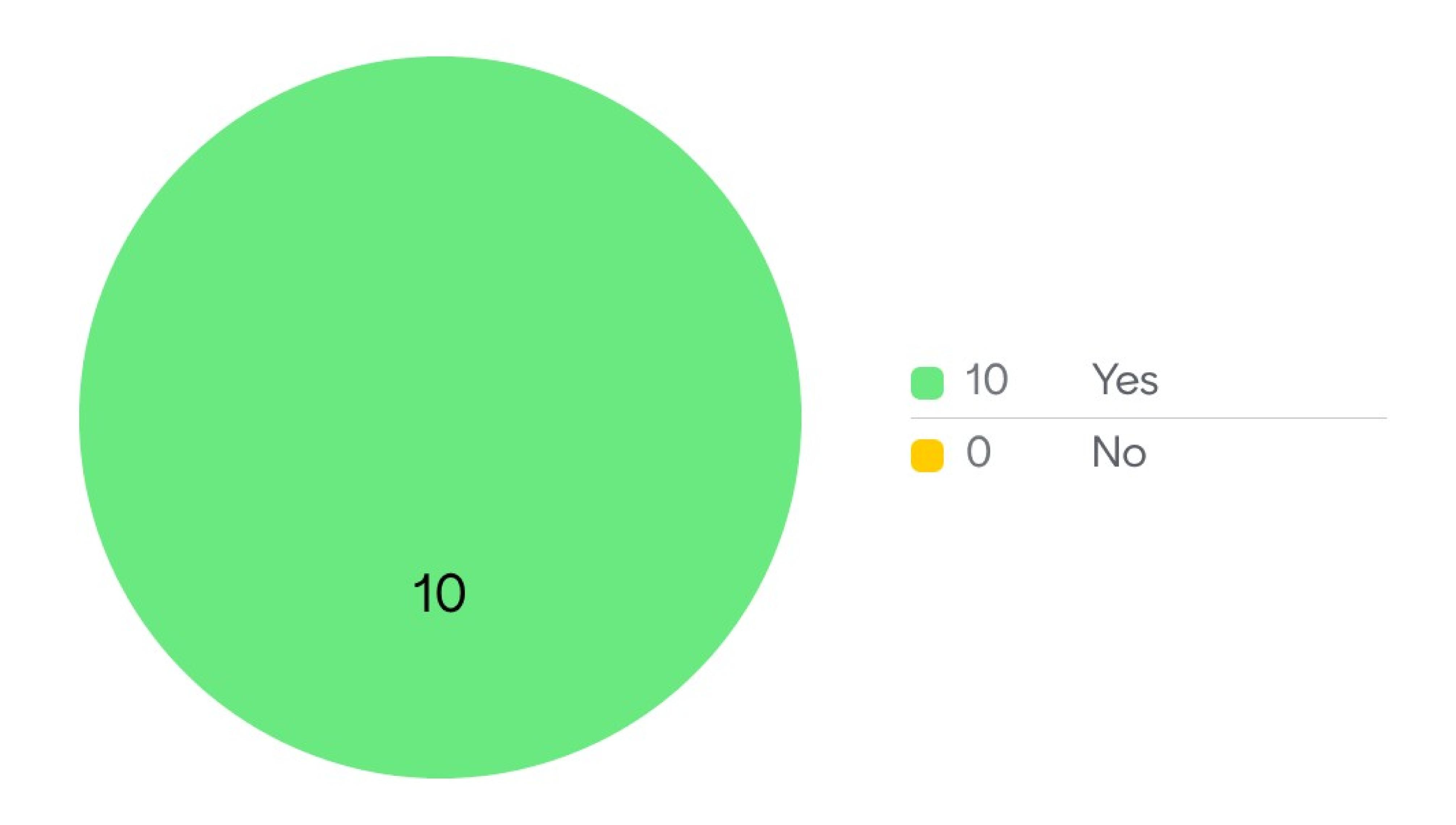
Supervisor stock sheet ensuring accurate quantity to DP.

Waybill and sto k card

Fiche de stock des agents ravitailleurs



Is it possible to leverage existing tracking systems and tools used for other health commodities in the ITN campaign?





Optimize the supply chain - 3

- Digital warehouse assessments
 - This is an option available in different platforms and can be explored as a good way for cost savings
 - No travel costs, per diem etc.
 - Rapid results (time saving)
 - Good quality results (optimization)
- Private sector:
 - Engage not just as contractors but as participants in strategy development and execution
 - In-kind contributions of not just logistics but logistics expertise

Making last mile logistics (LML) as cost efficient as possible for fixed site and D2D distribution ...

Our options for supplying the teams on a daily basis:

• We provide a pick-up that will take 16 bales and we drop 2 bales in each of the 8 villages (assuming 8 villages in the DP catchment area)

That means each DP will need a pick-up... \$\$

This would likely be a costly option...

• We can have 4 motorcycles that will do 2 villages (with 2 bales each) twice

This would probably be a bit cheaper...

We provide 2 cargo motorcycles with the capacity of 8 bales each.

This would also be a bit cheaper

We provide 8 bicycles that will take 2 bales each

Even cheaper...



Making LML as cost efficient as possible for D2D distribution

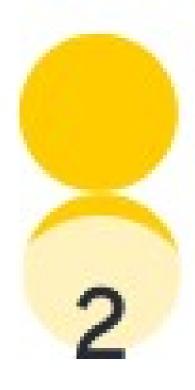
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- We have the teams coming to pick up their 2 bales with their own transport arrangements (we compensate them for that)
- Payment to the D2D teams for arranging their own transport could be a flat rate per bale (distribution payments as flat rate per bale?)
- The amount that we would pay the teams for transport would probably be between what we would pay for motorcycles and what we would pay for bicycles. However, the big advantage here is that we would not have to bother organizing the transport (ie: finding motorcycles and bicycles) -> criteria for selection?
- The biggest advantage of this approach is that teams would have each morning their two bales that they need to distribute during the day (either delivered to their villages by "us" or picked-up by "them") and therefore there would be no need for resupplying

Which of the proposed last-mile logistics options do you consider the most practical to adapt in your respective country?



Hiring vehicle for each of the DP catchment area



Hiring motorbikes to supply the teams

0

Hiring bicycle's to supply the teams



Pay D2D teams to bring their own transport





What additional strategies would you recommend to maximize cost efficiency in last-mile logistics for both fixed-site and door-to-door distribution?

Zonal or hub stores

Limit back-and-forth transport from storage to the distribution point.

Merging DPs

Use the local resources, such as canoes, to transport the nets

Explore DP Teams to explore handling their logistics as this has proved very efficient for reverse logistics at micro -micro level

Ways to significantly reduce ITN waste management costs

Source reduction

 Use bulk packing for ITNs instead of individual plastic packs to significantly reduce the volume of packaging waste generated at distribution points. This not only lowers waste management costs but also reduces environmental impact at the source.

Leverage existing infrastructure

- Utilize existing health facility transport systems which include fueling, vehicle hire, and labour to manage ITN waste, minimizing the need for new, costintensive contractual processes.
- Integrate the transport of ITN waste from the prepositioning site or distribution points with the reverse logistics of leftover ITNs during mass campaigns.

Ways to significantly reduce ITN waste management costs - 2

Leverage existing infrastructure

- Establish or utilize existing structures at health facilities as temporary storage for short-term storage solutions such as designated rooms at local facilities.
- Consider renting sections or carved-out spaces within larger warehouses as temporary storage spaces before disposal or recycling ITN waste, may be costeffective to renting the entire warehouse.

Ways to significantly reduce ITN waste management costs

- Integrate waste collection into distribution workflow
- Promote reuse and recycling options
 - Partner with recycling companies or private sector players to explore innovative options for management of ITN waste (e.g., for agriculture, construction).
- Digitalize waste tracking
 - Deploy mobile tools or digital forms to track and monitor ITN waste collection, cutting down on paper-based systems and improving efficiency.
- Plan for waste management early
 - Incorporate ITN waste management planning into the macroplanning and budgeting for the campaign to avoid costly last-minute arrangements.

Please list some of the challenges with waste management

Available waste mgt options at the local level

Very few recycling companies

Cost if high because there's not so many companies

Lack of a clear plan for waste management. Lack of a recycling plan and the cost of recycling

Lack of country capacity to manage waste/ lack of formal partnership set up for waste management to take place in sufficient time.

Limitada capacidade de operadores locais para reciclagem

Limited funding for waste management

Lack of integrated planning alongside the routine logistics

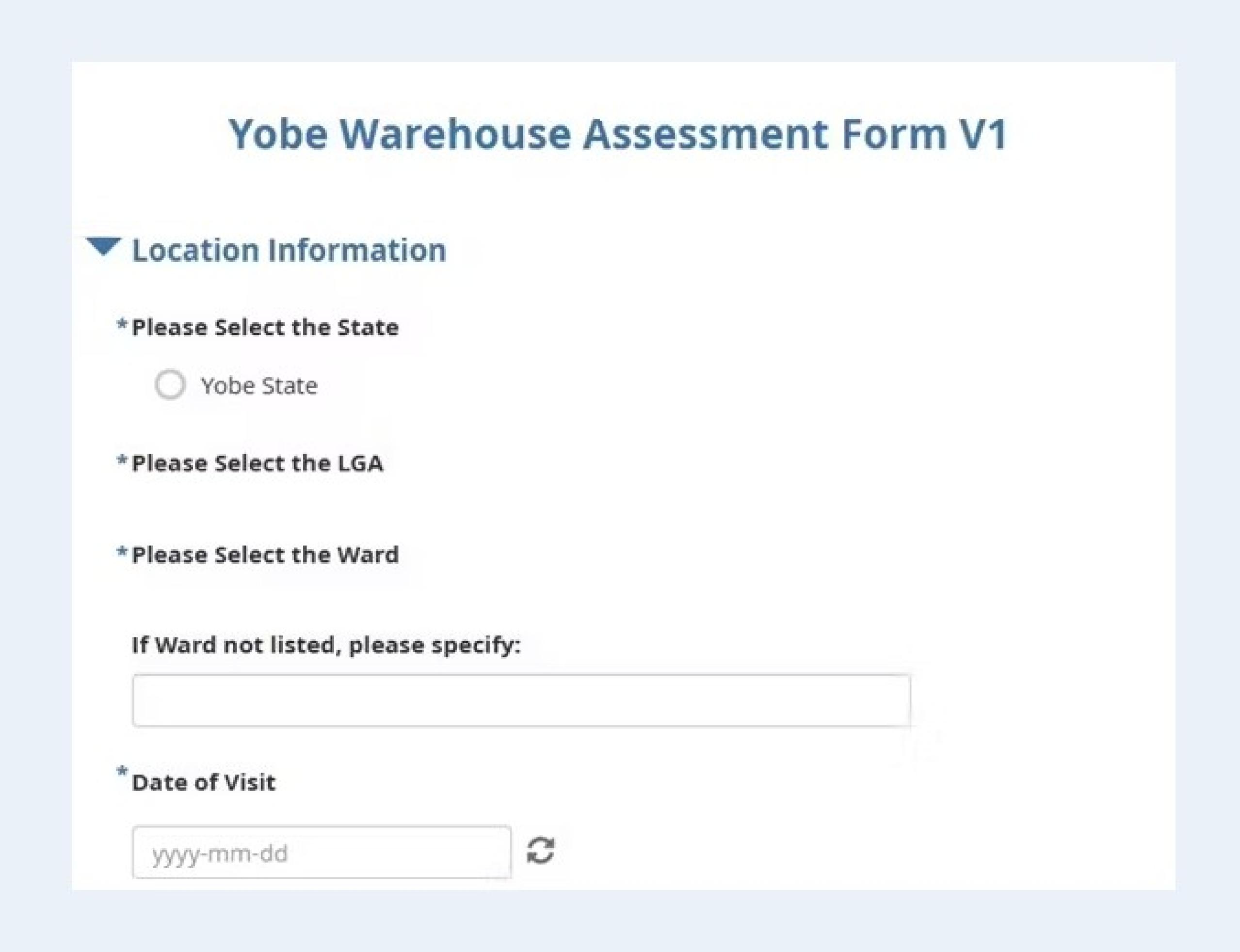


Please list some of the challenges with waste management

Mobilisation des coûts nécessaires pour la gestion des déchets

Lateral and reverse logistics

- Avoid lateral logistics improve quantification and quality of registration, work within the limits of nets available in each area (district, locality, DP/PPS, community, etc.) → adjust allocation or capping to avoid additional costs for unplanned ITN movement
- Reverse leftover ITNs to the nearest health facility and use local transport to move remaining nets/bales (e.g. CHW bicycles or HF staff bicycles) given small quantities



https://tinyurl.com/war ehouseassessment



Thank you