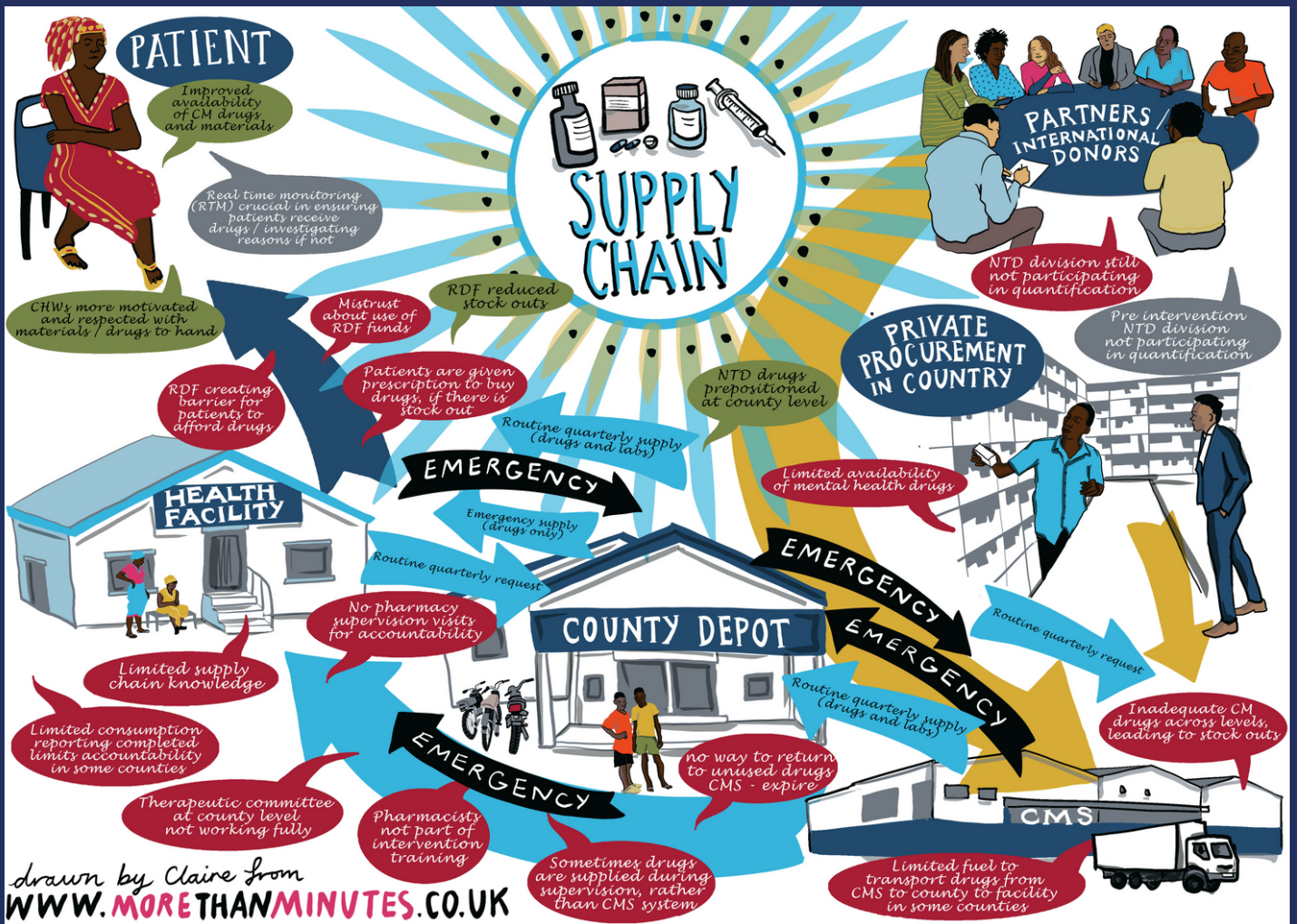




REDRESS

Reducing the burden of
Severe Stigmatising Skin Diseases



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Policy Brief: Strengthening Liberia's supply chain for better diagnosis, treatment and referrals of skin NTDs

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Strengthening Liberia's supply chain is critical for better diagnosis, treatment and referrals of skin NTDs

Synopsis

REDRESS research has shown how weak supply chains can undermine training efforts, demotivate health workers, impede self-care practices and diminish trust between persons affected and the health system. Strengthening supply chains is critical. Based on REDRESS research in Liberia and synthesis from the international literature we propose 11 recommendations to strengthen

the responsiveness and effectiveness of supply chains and support integration efforts. A supply chain management system that provides commodities when required and prepositions supplies underpins positive treatment outcomes and the maintenance of trust between community members, people affected, health workers and the broader health system.

Background: Why are strengthened supply chains important for holistic person-centred NTD care?

Supply chains are vital components of the health system which, when well-functioning, allow vital medicines and consumables to be delivered at the time and place where they are needed, in the correct quantities and at the lowest possible cost (Yadav et al., 2011)¹

Privett and Gonsalev (2014)² outline 10 common supply chain issue domains (shown below) which were used to inform our review of the Liberian supply chain for skin NTDs.

Table 1. Ten common supply chain issues (Privett and Gonsalev, 2014)²

Supply chain domain	Definition and importance
Supply chain coordination	Supply chain coordination is the stewardship of supply chain activities. It ensures coherence and motivation in the team, and sets standards to support supply chain effectiveness.
Inventory management	Inventory management involves tracking stock and stock-out of commodities and supplies as well as quantification that support replenishment of commodities and supplies.
Demand information	Data generated on consumption at any level of the supply chain is regarded as demand information for supply chain. That data are useful to inform procurement and supply chain decisions.
Human resource (HR)	In supply chain HR is concerned with qualified personnel trained to effectively manage the supply chain system with the aim to provide equitable access to quality, adequate and timely commodities to those in need.
Order management	Involves planning, ordering and following up on medical commodities to support accessibility of commodities. With effective order management, there will be timely availability of commodities.
Shortage avoidance	Shortage avoidance is strategies employed by supply chain systems to mitigate the effect of shortages of medical commodities. Some of these include frequent ordering, frequent replenishment, large buffer stocks and emergency ordering.
Expiration	Expiration in the medical supply chain is when the usefulness of a commodity and supplies are rendered out of date and therefore not helpful to those in need. This usually leads to product wastage.
Warehouse management	Warehouse management issues centre around the importance of storage, organization, capacity and shared space management.
Temperature control	The temperature control domain most predominantly relates to medication and vaccines that need to be stored at a specific temperature, especially those that require a cold chain.
Shipment visibility	Tracing shipments in the supply chain after they leave the manufacturer or origin, usually becomes an issue with most prepositioning or shipment processes, becoming most challenging before reaching their final destination.

REDRESS identified enablers and barriers to integrating the skin NTD supply chain (medical commodities) into the national supply chain system in Liberia by capturing the differing experiences, perspectives and recommendations of participants regarding the equitable and effective management of

skin NTDs that could contribute to health systems strengthening. This policy brief presents the findings and analysis of our supply chain assessment and provides recommendations for stakeholders seeking to implement the person-centred integration of skin NTDs.

What are the supply chain challenges and opportunities in Liberia for skin NTDs?

Figure 1 highlights Liberia's supply chain issues across several of Privett and Gonsalvez's (2014)² top 10 domains for supply chain management and extends these to emphasise how limitations in the supply chain have a major impact on both health workers and persons affected.

Perceived benefits and strengths to integrating NTD commodities into the national supply chain include improved storage and management capacities within the routine supply system, which are capitalised at county levels; the political will to integrate based on cost-saving and capacity-strengthening potential and positive progress in integrating paper-based reporting tools. However, challenges remain, specifically the risk of the reliance on donor funding for the national health supply chain; difficulty in accessing commodities due to bureaucratic bottlenecks; lack of inclusion of skin NTD commodities within electronic data reporting tools, and poor coordination leading to an inability to meet medicine and commodity demand (Kollie et al., 2023)³

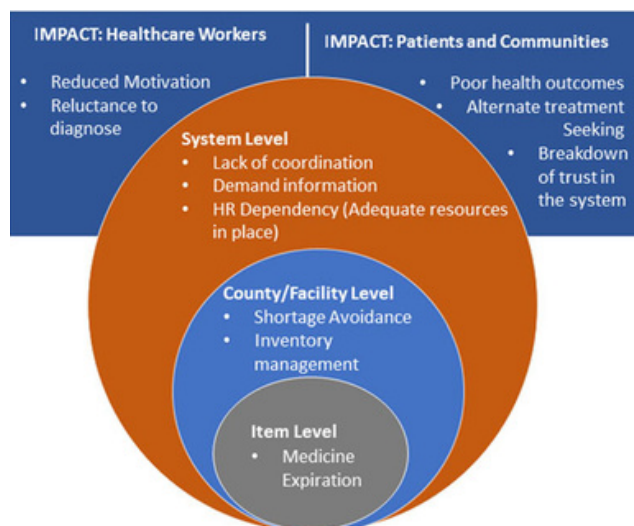


Figure 1 Liberia's supply chain challenges

All counties lacked funding support for medicines to treat skin NTDs. Lofa and Nimba Counties had at least some support from international charity organisations that funded the implementation of case management NTDs in 5 counties. However, in Lofa and Nimba counties, NTD services were excluded from county-level funding sources as well as the Ministry of Health pool funds, and these counties would intermittently experience a lack of NTD medications and resources.

What were the impacts of supply chain challenges on the health system and people affected by skin NTDs?

REDRESS research identified the wide-reaching impacts of weak supply chains. Shortages and stockouts of drugs, lab reagents and equipment, medical supplies and materials (e.g. job aids rain gear, boots, plastic folders) invariably delay treatment, demotivate formal health-seeking behaviour

and result in persons affected turning back to the informal sector, making health workers "feel weak" and "embarrassed". Limited access to materials was also found to impede self-care practices, as many people affected do not have the means of obtaining materials independently.

Nowadays, if the facilities have patients, they have to call to county level and if the drug is not here, we have to call also to national level. And those are procedures. The time it will take for the drug to come into the county is a long period of time. And we all know the disease is not going to wait for you, the destruction of the body is going to continuously be going on and before you get the drugs, sometimes it[s] gone beyond or sometimes to even get the patient now it becomes difficult.

NTD focal person

Costs of healthcare seeking were high and included paying for transportation to get to health facilities and payments for blood tests, dressing materials, medicine, or surgery. These expenses often discouraged people affected from seeking formal healthcare.

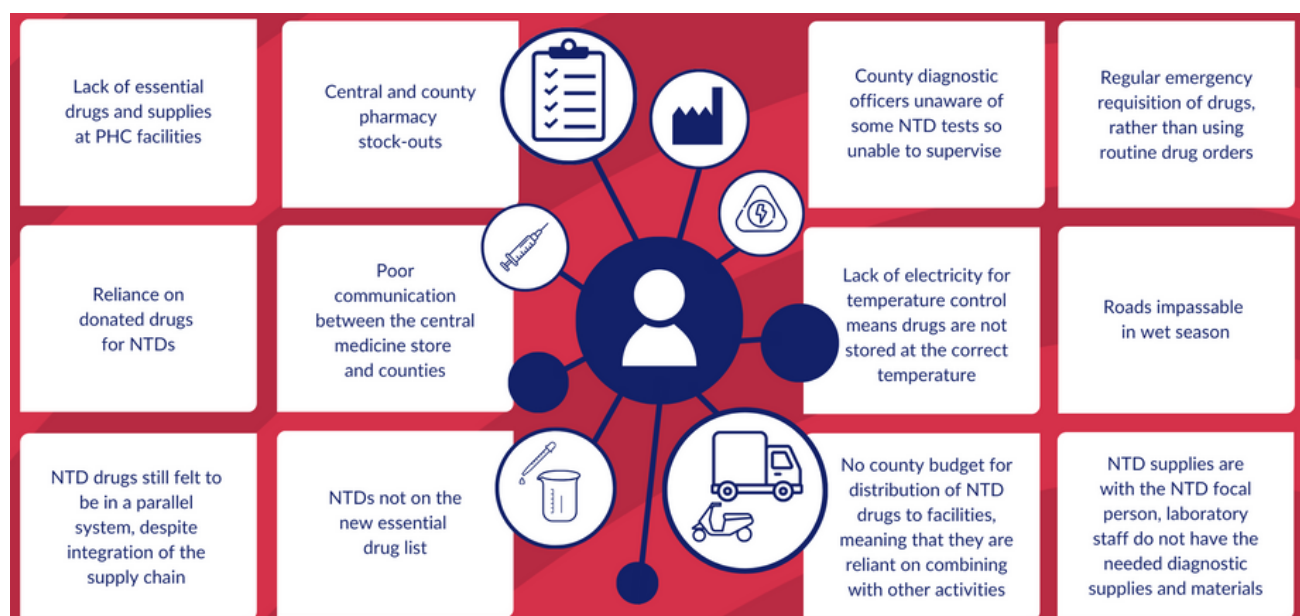
You shouldn't say it's free here. Nothing is free in that hospital. Nothing is free. Even if they say it's free.

Health worker GG

Supply chain challenges led to staff attrition and a breakdown of trust. This means that training, which often attracts significant attention and investment, is undermined by the supply chain (Kollie et al., 2023).³ This led to a reluctance amongst health workers to diagnose skin NTDs as they could not guarantee that they could provide the treatment that was needed. This was further exacerbated by the experience of people affected, who, following the

community health worker suspecting a skin NTD condition and referring them to health centres, were unable to access the medication they needed. The impact of this experience on the overall trust of communities in the health system is critical to understand and address, and its impact is likely to go significantly beyond skin NTDs to impact community trust and practice in the health system more broadly (Kollie et al. 2023).³

Supply chain challenges identified by stakeholders in Liberia that impact skin NTDs



Impacts of REDRESS advocacy in this area

Strengthening the supply chain requires immense resource and health systems reform, which was unfeasible within REDRESS alone. Thus, through our interventions and supply chain assessment we chose to: 1) advocate to support supply chain systems strengthening, and 2) make small adjustments within NTD medicine procurement and distribution to support systems strengthening and enable REDRESS interventions. These adjustments included:

- Real-time monitoring of expected case estimates using DHIS-2 data and through regular forecasting based on supervision reports
- Prepositioning medicines at the county stores to minimise delays in persons affected receiving necessary commodities
- Raising awareness amongst community health workers on the importance of accurate case reporting to ensure appropriate resource provision

These positive steps supported the effective management of new cases identified through the REDRESS interventions (see case detection case study) and enabled an increased evidence-based focus on supply chain management within Liberia's Masterplan 2023-2027. For example, based on the assessment presented below, the national programme is now working to embed NTDs within the electronic logistics management information system in Liberia.

Recommendations

1

View the supply chain using a person-centred lens that goes the 'last mile' considering all levels of the health system from national to hyper-local (See figure 2)

What are the issues and challenges of 'community access' that we should consider from a NTD viewpoint?

Should we consider this 'extra mile' from both directions?

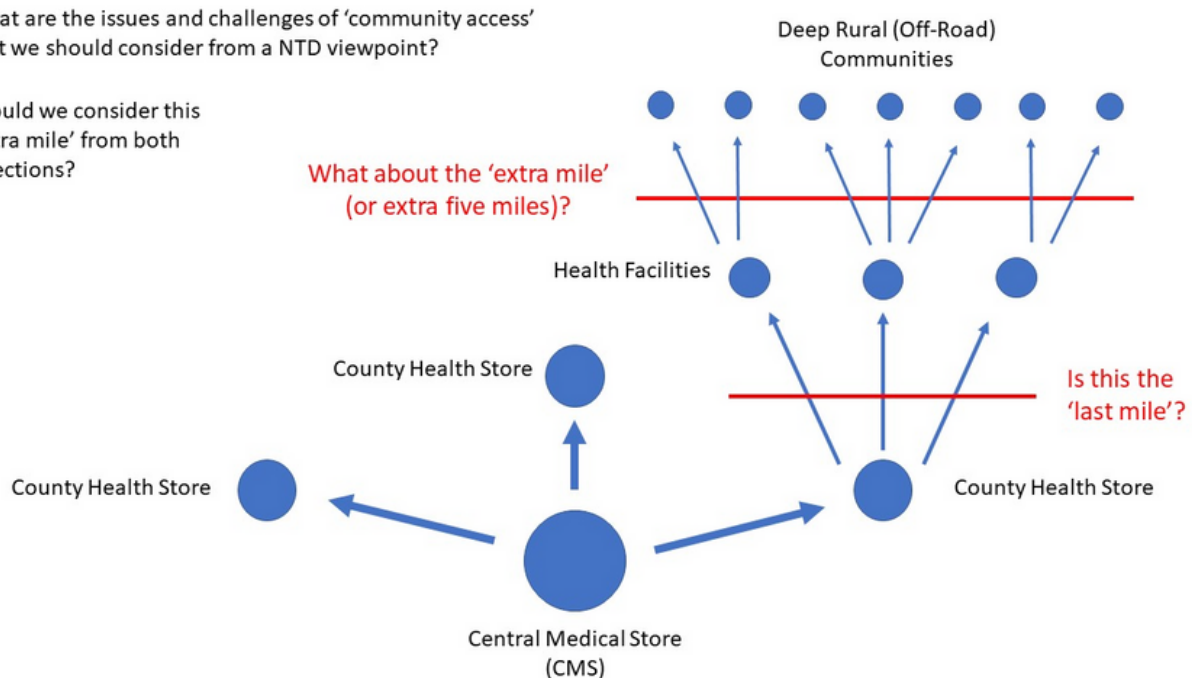


Figure 2 Supply chain levels in Liberia

2

Strengthen ownership and direction of the supply chain system by the Liberian Ministry of Health and ensure all partners pay due regard to guidelines and standard operating procedures to ensure effectiveness and best use of scarce resources

... well NTD is not being budgeted for. So everything there is done partner-driven right. And so, I come to financing, I do not really have any knowledge on what is being used in no set amount for the purchasing of commodities... I'm not in the decision-making process to know how much is allotted to procure what...

National level key informant interview

3

Fully integrate medical commodities into all aspects of the national supply chain system

The addition of NTDs in the electronic logistics management information systems (eLMIS) together with periodic review and recording of stock at all levels and routine sharing of stock reports will go some way to improving consistent supply. Including commodities on all supply chain tools for effective integration may also enhance inventory management and ownership by the government (Kollie et al., 2023)³



Recording on the routine visit form, Moses Wulue, CHA, Grand Gedeh County

The [skin NTD] drugs actually come in a parallel supply system. Sometimes it just come to the NTDs focal person... the process of integrating these diseases is an important [one] for the drugs supplies for these to pass through the normal supply chain...

County level key informant interview, Grand Gedeh

4

Strengthen skills and mechanisms for inventory management and active forecasting, distribution, and timely replenishment of essential NTD medicines and supplies to avoid stockouts

Pharmacies, drug depot focal persons and national programme managers would benefit from training and collaboration to forecast, distribute, and timely replenish essential medicines and supplies for skin NTDs. Maintaining buffer stocks and timely replenishment of supplies at health facilities will also enable health workers to serve their populations. Partners should make efforts to work with the chief pharmacists and the Central Medicine Store to forecast, taking into consideration the rainy season, and providing for two quarters instead of one to avoid stockouts.

Liberia as a country, pharmacy supply chain is responsible to forecast... So, if we consume the first quarter, the second quarter, once you in the third quarter, you don't touch the fourth, you start to replenish. But now, Liberia as a country will sit while we are consuming the last quarter, then we will say, we don't have medication.

National level key informant interview



Medicines photographed by photovoice participant, Grand Gedeh County

5

Institute strategic and responsive mechanisms to avoid stock-out in the supply chain system

It is important to advocate for the procurement of enough medical products for NTDs from the WHO, national government, and supply chain policymakers. These products must be prepositioned before any cases are diagnosed to ensure prompt treatment. This will also help reduce health worker turnover and prevent demotivation.

6

Improve communication between different levels of the supply chain

For example, inform the county when new stock arrives in the country, so that requests can be sent as soon as possible.

7

Avoid 'emergency ordering' as a shortage avoidance strategy

Avoiding 'emergency ordering' as a shortage avoidance strategy as this can have unintended consequences such as the NTD programme shouldering the responsibility of transportation of the emergency medical commodities to the counties and onwards to the health facilities.

8

Improve responsiveness to facility requests

Facility-level respondents reported monitoring stocks and requesting re-supply early, however, this is not always done. Typically, more supplies are brought during the dry season to cover during the rainy season.

Once we are about to go out of stock, we will not wait until we go out of stock. We call county, fill in a requisition form, and send it to the county for supply. But sometimes when we go we don't get what we want because once it is yet in county they will not be able to give us what we want.

Key informant health facility level,
Grand Gedeh County

Construction of larger county stores to accommodate the increased provision of stocks in advance of the rainy season may be a solution where resources permit.

9

Support the ongoing development of a trained and supported NTD-specific pharmacist to assist with NTD integration within the supply chain

Recently, support for an NTD-specific pharmacist was viewed positively, making a case for maintaining this role.

Over the past ten years, we have never held any pharmacist representing the NTDs but, this time we have had one pharmacist who is now responsible to liaise with the county quantification team in the Supply Chain Department.

County level key informant interview,
Lofa

10

Encourage integration at the county level, to strengthen opportunities for distribution due to limited support available

The county health team is responsible for providing the logistics to distribute NTD medicines, which is completed upon reporting a case. However, there is no budget allocated for this so it should be integrated with other funded activities (e.g. Fixed Amount Reimbursement Agreement (FARA) medicines).

11

Increase awareness of NTD tests amongst county diagnostic officers

There are some NTD tests that the county-level workforce is largely unaware of making it difficult for the workforce to check storage and use.

...when it comes to NTD supply...there is no knowledge; so, to do follow up on these NTDs laboratory equipment I even learn that there is some NTDs test going on and I don't even know as County Diagnostic Officer, so how do I follow up with these test kits and see the best storage of these test kits and the best sample.

County level key informant interview, Grand Gedeh

Conclusion

Integration of the medicines and supplies for the case management of skin NTDs within the national supply chain is crucial. Strengthening the supply chain system warrants specific attention and investment to ensure that it does not undermine integration efforts. Most critical is the need to ensure a supply chain management system that provides commodities in a timely way to those who need them to ensure positive treatment outcomes and the maintenance of trust between community members, people affected, health workers and the broader health system (Kollie et al., 2023).³ The effects of small changes to improve the supply of medicines and commodities for skin NTDs can be observed quickly.

Though I talked about the limitations of medication... compared to before to what is happening now, it is not like before. Before... it used to take a long period of time before medication [arrives] but nowadays, though the medication are limited... it comes. So if two, three patients, if five patients' medication, if that ten patients' medication, it can come... that even give hope to other patients that hear, as long my friend[s] medication can come, I know my own will come...

County level key informant interview, Lofa

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