

Investing in integrated case management leads to reduced out of pocket expenditure for persons affected by skin NTDs



Synopsis

Neglected tropical diseases impact people who are typically from poor and marginalised populations. To date, there has been limited availability of studies which cost case management of NTD interventions, and a critical evidence gap remains regarding how much it costs to implement integrated case management. Throughout the REDRESS intervention we collected data on intervention delivery costs, as well as the cost of out-of-pocket expenditures for persons affected. We found that the REDRESS intervention led to reduced costs for persons affected to seek care, with an average reduction in costs of 30USD per patient. The cost for each additional person identified with skin NTDs during intervention period (October 2022 to September 2023) was 279USD.





Background

Why is costing data needed?

Neglected tropical diseases typically impact people from poor and marginalised populations who are living in rural communities (Godwin-Akpan et al. 2023). Persons affected are frequently those who live far from health facilities. Women and girls are most likely to be diagnosed and to start treatment later, by which time they may already have a chronic condition and/or disability. NTD interventions often receive limited resources from within national health budgets and donor support is frequently fragmented and increasingly inconsistent. Thus, for national programmes, understanding exactly what it costs to identify, treat and support persons affected by skin NTDs would be a huge support in shaping advocacy efforts. Through REDRESS formative research, we carried out a review of the literature, revealing that at that time no comprehensive costing studies had been carried out for NTDs in Liberia (Smith et al. 2022). Since that time, one further study within Liberia has revealed the cost-effectiveness of integrated case management, with the cost of a patient being diagnosed under vertical implementation five times higher than through integrated case management, and treatment provision ten times as costly (Godwin-Akpan et al. 2023). There have been no known studies which cost integrated case management of NTDs (including the integration of mental health and ongoing psychosocial support), and this is a knowledge priority for the Ministry of Health, Liberia. Through REDRESS we sought to address the knowledge gap in the costing of integrated skin NTD care (which includes mental health component) in Liberia.



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What was the impact of REDRESS intervention on out-of-pocket expenditures for persons affected by skin NTDs?

For persons affected, we found that at baseline, 31.4% of patients did not report any out-of-pocket expenditure. By endline this had increased to 39.6% of total patients.



On average, persons affected have spent 30 USD less in the endline than baseline across all categories.

Greater savings occurred in medication costs (15\$) and prescription costs (7\$). Given that people affected by skin NTDs are often amongst the poorest and most marginalised, this change can have a marked difference in the lives of persons affected, and this corresponds to about 50% of the average of out-of-pocket expenditure per capita (61.7USD) in 2020 (Source: World Bank).

This reduction in the cost to persons affected relates to reduced costs related to: medication costs, admission average prescription costs, health care costs, hospital round trip costs, test costs and admission treatment costs (see Figure 1). These relate to intervention components with the prepositioning of drugs and strengthening of record keeping helping to increase the availability of drugs and supplies within the county. The decentralisation of care closer to the patient through the training of health workers across all facilities to be able to diagnose and manage patients will have contributed to the reduced transportation costs. Finally, the training of laboratory staff in all facilities to collect samples for all skin NTDs and to test for yaws and leprosy, with decentralised testing to the two laboratory hubs within each county, will have helped reduce the testing costs per patient.

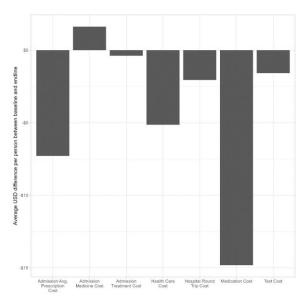


Figure 1. Showing cost changes in out of pocket expenditure per patient



What was the cost of the REDRESS intervention?

During the REDRESS intervention period (October 2022 - September 2023), 173 additional people with skin NTDs were identified (based on HMIS records) in excess (compared to October 2021 to September 2023).



Based on this, we find that this represents a cost of 279USD for each additional patient with skin NTDs found.

The full breakdown of intervention costs per intervention area is shown in Figure 2.

These costs related to all components of the intervention, which cost \$483,557 USD. This is divided into:

- Intervention development with a cost of \$35,136 (7%), and;
- Intervention delivery with a cost of \$448,422 (93%)

The highest overall cost was for training (\$273,078), with 3245 people trained.

This training included health workers who were trained in integrated case management, as well as case detection and community awareness training (among other content) for community health assistants, community heath promoters, traditional healers, faith healers, and peer advocates.





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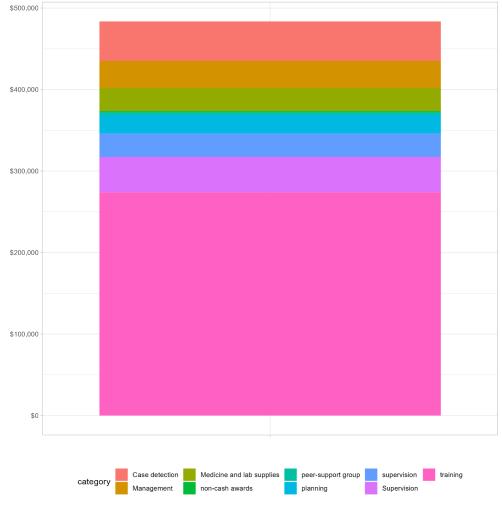


Figure 2. Cost breakdown per intervention component for REDRESS

What was REDRESS intervention and how did we collect costing data?

The REDRESS intervention took place across three main levels with population wide, family and community, and decentralised management of patients, with onwards referral for more specialised services where needed (see Figure 3).

Referral into existing mental health services at county level (where required). Inclusion of mental health and NTD indicators in DHIS-2 mhGAP training for selected health workers at facility level highlighting mental health & NTD links Secondary or tertiary care cross-departmental collaboration Integrated case management training & Supportive supervision & supportive supervision, including Basic psychological support (BPS-N) for health workers. Skin algorithm, job aids, job tasks. Integration of mental health screening tools (PHQ9, GAD7) in **Decentralised** routine NTD care. Non-cash awards for motivation management of patients Training for community health workers & informal providers (faith & traditional healers, peer advocates) Family and community initiatives in BPS-N. Peer support groups for people affected. CHWs provided with essential resource kit. Non-cash awards for CHAs and CHPs **Population wide initiatives**

Sensitisation for community health workers & informal providers (faith and traditional healers) to understand causes of skin NTDs & stigma awareness. **Advocacy and awareness campaigns** conducted by community advisory boards and peer advocates on the radio and in communities.

Figure 3. REDRESS intervention pyramid

Costing data was collected throughout the intervention period by tracking the budget and expenditures for all intervention components to monitor health system costs. Out of pocket costs to persons affected were assessed through the patient survey.

























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