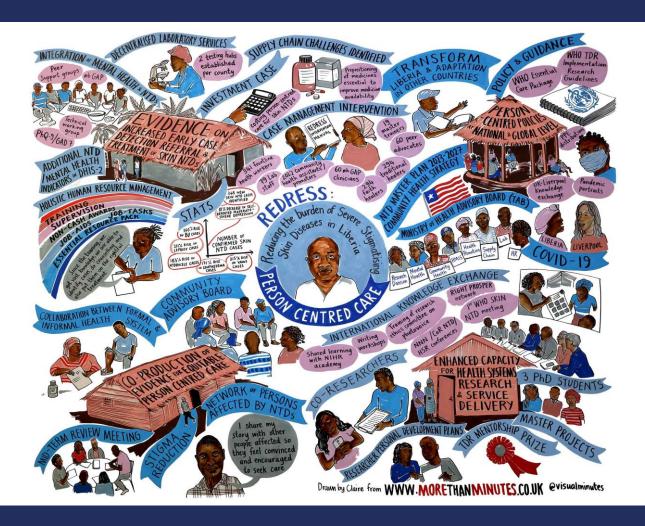


REDRESS: Reducing the Burden of Severe Stigmatising Skin Diseases in Liberia

Person-centred care that is embedded within strong and responsive health systems are essential for the equitable management of skin NTDs leading to improved physical, social, mental and economic wellbeing for persons affected





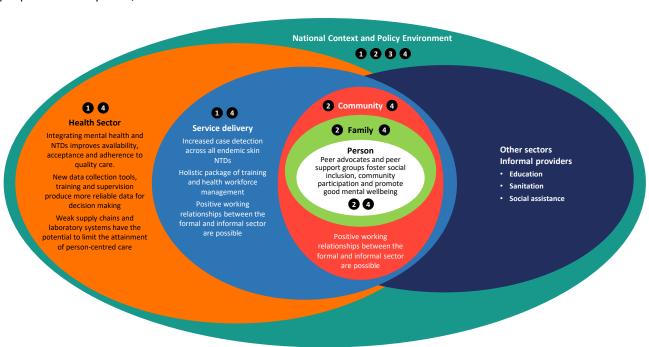
Why was REDRESS needed?

For many persons with skin NTDs, lack of access to effective services results in significant physical, financial and psycho-social impacts. Delayed diagnosis and disease progression cause greater and largely irreversible physical impairment; and alternative treatment is sought from outside the health system, often with catastrophic economic and social consequences for patients and households (1-6). Integrated management of skin NTDs, defined as the implementation of activities targeting two or more skin NTDs at the same time and in the same communities, has been proposed as a key solution to these challenges (7-9), alongside the mainstreaming of NTD services within health systems. However, there is limited evidence globally on the effectiveness and efficiency of these approaches from a community and health system perspective.

To address these evidence gaps, REDRESS assessed the current integration of the management of skin NTDs in Liberia - specifically their detection, referral and treatment - at multiple health system levels and from multidisciplinary perspectives. We then co-developed, prioritised and tested interventions to improve person-centred care for skin NTDs in Liberia. The knowledge produced within REDRESS is of regional and global relevance and can support national health systems to implement affordable, timely, appropriate and improved treatment strategies for skin NTDs that also reduce stigma and address other social issues for affected vulnerable populations.

The Impact of REDRESS

Person-centred approaches that are embedded within strong and responsive health systems are essential for the equitable management of skin NTDs which results in improved physical, social, mental and economic wellbeing for those affected. Within REDRESS, we have developed a multi-disciplinary evidence base that can support the design and delivery of effective and equitable programmes to address skin NTDs within and beyond Liberia. We have achieved key outcomes that span multiple levels of the World Health Organisation's conceptual framework for people-centred integrated health services, contributing toward the realisation of universal health coverage for people affected by NTDs, their families and communities.



- **Outcome One:** Mixed method, co-produced and interdisciplinary evidence used by the Liberian health system increased case detection, referral, and treatment of skin NTDs.
- Outcome Two: Engaging persons affected, families and communities, close to community providers, and in decision making that affects them promotes inclusion, reduces stigma and is central to equitable person-centred care.
- Outcome Three: REDRESS evidence has informed the development of person-centred policies at national and global levels catalysing on trusting and equitable partnerships.
- Outcome Four: REDRESS enhanced capacity for country owned, sustainable health systems research and delivery by including a diverse range of stakeholders from across multiple systems levels.

Multi-disciplinary evidence that is aligned to each of these outcomes and domains of person-centred health systems are emphasised within a series of impact case studies and policy briefs. The key impacts and learnings that are aligned to each of these areas are summarised in the following pages, with links to associated case studies provided.



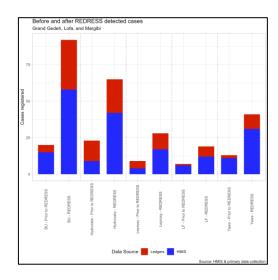
Outcome One: Mixed-method, co-produced and interdisciplinary evidence used by the Liberian health system increased case detection, referral, and treatment of skin NTDs.

Key Impact One: Increased case detection across all endemic skin NTDs as a result of an integrated health systems approach that involved a diverse range of community actors, including persons affected, traditional healers, faith healers, community health workers and health facility staff.



Read: Case Detection Case Study

Comparing 12 months before REDRESS (October 2021 - September 2022) and the intervention itself (12 months) (October 2022 - September 2023), we found a statistically significant increase in case detection across all endemic skin NTDs (yaws, leprosy, Buruli ulcer, lymphedema, hydrocele, onchocerciasis) in all REDRESS intervention counties.





171% rise

Before the intervention, in a year, there were 7 lymphedema cases. During the intervention, this increased to 19 cases, reflecting a 171% rise

183% increase

The number of hydrocele cases in a year before the intervention was 23, increasing to 65 during the intervention, resulting in a 183% increase



Before the intervention, in a year, there were 13 yaws cases. This number rose to 41 during the intervention, indicating a 215% increase



325% increase

The number of new leprosy cases increased from 9 in a year before the intervention to 28 during the intervention, representing a 211% increase



360% rise

Before the intervention, in a year, there were 20 new Buruli ulcer cases detected. During the intervention, this increased to 92 cases, indicating a 360% rise



4 cases

There are also 4 detected cases of onchocerciasis (no comparison data in HMIS)

Trust in the health system (and health workers) was the most commonly described enabler to seeking care and must be protected. Promoting confidentiality and good diagnostic communication skills amongst the health workforce was critical in ensuring our case detection success. Persons affected, establishment of peer support groups and the work of the community advisory board also played vital roles in case detection.

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

Exactly what it costs to identify, treat and support persons affected by skin NTDs is unknown, making advocacy and resource allocation challenging. REDRESS costed integrated skin NTD care from the perspective of the health system and persons affected. We found that:

Out of pocket expenditure for persons affected reduces by

279USD
per skin NTD case identified

84.43USD
per health worker trained

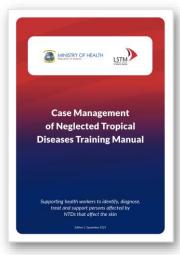
448,422USD total intervention costs. Highest cost driver was training.

Key Impact Three: A holistic and coherent package of training and health workforce management practices supported health workers to deliver personcentred skin NTD services.



Read: Health Worker Case Study

Our initial research found high levels of attrition and that some health workers lacked knowledge and motivation and had stigmatising attitudes toward people affected by NTDs. The REDRESS intervention manual is designed to support health workers to deliver services for skin NTDs through the primary health care system and includes a focus on: training (guided by adult based learning approaches), direction and supervision, provision of resources, and rewards for good performance. The integration of sectors, including NTDs, mental health and community health during design of the intervention manual and job aids, training rollout and supportive supervision was critical to the success of our integrated approaches.



Health worker knowledge improved following training, with health workers having clearer understanding of their roles, supported by increased resource provision. REDRESS reduced stigmatising attitudes expressed by health workers, which, coupled with seeing their patients recover was a key motivating factor. Health workers have been able to apply their new knowledge in their work, with: CHAs and CHPs carrying out more awareness raising, case detection and referral activities in their communities; and facility workers carrying out mental health screening and provision of basic psychological support as needed for newly diagnosed persons affected by skin NTDs.



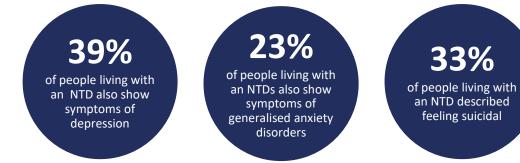
"What motivates me is going out there talking to the people...changes are taking place and that is really motivating me...I have that power to tell them let's do this, you have to go to the facility and they are listening to me and giving help in the community that is really motivating me to be the type of person that serves my community." Focus Group Discussion with CHAs, Margibi County

Key Impact Four: Delivering mental health and NTD services together through the primary health care system and in collaboration with communities presents a critical opportunity for improved availability, acceptability, and adherence to quality care, whilst also supporting health systems strengthening and promoting equity in health care access.



Read: Mental Health Case Study

Rates of common mental health conditions (e.g. depression and anxiety) amongst people affected by NTDs are significantly higher than in the general population. In Liberia, prior to the REDRESS intervention, we found that:



The process of integration and development of shared training and intervention resources was catalysed by <u>cross-departmental collaboration and dialogue between the NTD department and the mental health department</u>, formalised within a technical working group at national level. Training associated with the process of integration has empowered healthcare workers to recognize and address mental health issues, enabling them to ask the right questions to support the physical and mental wellbeing of persons affected and their families. Facilitating the expansion of mhGAP training to ensure all health facilities have an mhGAP trained clinician or referral point at a neighbouring facility, alongside integrated NTD and mental health training (using the <u>BPS-N and other associated materials within the REDRESS intervention manual</u>) has supported a team approach to care delivery with partnerships between the NTD and mental health departments at different levels. This approach has enhanced the continuum of support and care for persons affected by NTDs, promoting a stronger and more inclusive primary health care system.

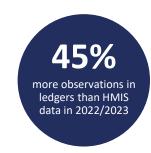
The mean PHQ-9 score at baseline was 8.1 (sd 6.1) and 39% of participants had a score indicative of moderate-severe depressive symptoms (PHQ-9 \geq 10). The mean endline score was 7.0 (sd 7.1), with 30% of participants meeting the moderate-severe depressive symptom cut-off score. A smaller proportion was classed as having severe depressive symptoms at endline across the entirety of the person affected population, but particularly amongst those engaged within Grand Gedeh county. In Grand Gedeh, PHQ-9 score at baseline was 7.0 (sd 4.1) and X% of participants had a score indicative of moderate-severe depressive symptoms. The mean endline score was 3.1 (sd 3.2), with 7% of participants meeting the moderate-severe depressive symptom cut-off score; a statistically significant difference. In addition, across all counties, 33% of respondents at baseline reported thinking about self-harm or suicide in the two weeks preceding the survey; this was 30% at endline. The average GAD-7 score was 6.0 (sd 4.7) at baseline, and 23% of participants screened positive for general anxiety disorder (GAD score \geq 10). At endline, the average score was 5.5 (sd 5.4), with 22% being classed as having anxiety.



Being female was a statistically significant risk factor for scores of depressive symptoms.

Key Impact Five: New data collection tools, training and supervisions produce reliable data, enabling effective decision-making and improved diagnosis, care and outcomes for persons affected by skin NTDs.

Formative research illustrated a convoluted data pathway with numerous errors relating to record keeping, NTD ledgers and discrepancies between ledgers and HMIS data, resulting in unreliable skin NTD data.



Read: Data Case Study

Over the REDRESS intervention, improvements in data quality have been achieved through the national team becoming responsive to data issues and routinely checking data from the county and district levels. There was a significant increase in data concordance between the ledgers and HMIS starting in mid-2023 when the interventions were implemented. By December 2023, the concordance rate reached over 90%, indicating the discrepancies between the two systems were largely resolved.



Figure: Monthly cases registered in the HMIS and ledger in 2022/2023 in selected health facilities (n=81) Grand Gedeh, Lofa and Margibi counties. Source: HMIS and primary data collection.

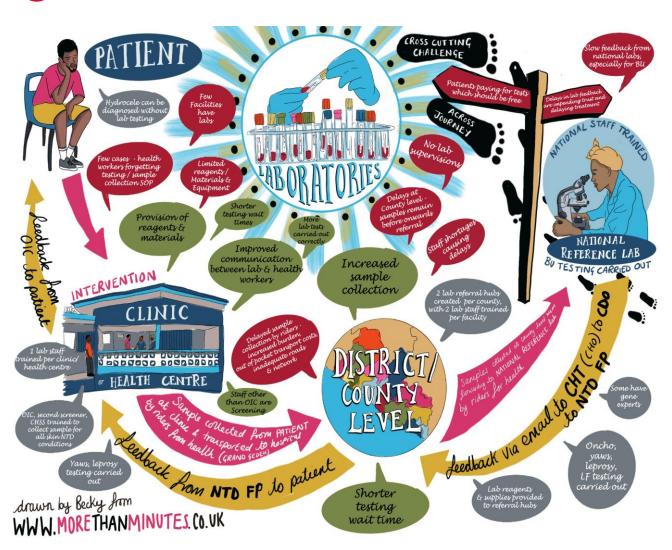
Healthcare actors have a renewed appreciation for the importance of collecting good quality data and have developed data management skills through training and supportive supervision, with data validation now conducted at the health facility level. Improvements in data quality are enabling better decision making and resource allocation by health authorities across all levels.

Key Impact Six: REDRESS research emphasises how weak supply chains and poorly functioning laboratory systems can undermine training efforts, demotivate health workers, impede self-care practices and diminish trust between persons affected and the health system.

Strengthening supply chains and laboratory systems is critical to the success of person-centred interventions for skin NTDs. However, strengthening these systems requires immense resource and health systems reform, that was unfeasible within REDRESS alone. Thus, through our interventions and supply chain assessment we chose to: 1) advocate to support supply chain systems strengthening through the production of 12 key recommendations; 2) make small adjustments within NTD medicine procurement and distribution to support systems strengthening and enable REDRESS interventions, for example the prepositioning of medicines and supplies at county level and real-time monitoring of expected case estimates using DHIS-2; and 3) supporting the provision of diagnostic services close to communities by increasing awareness of skin NTDs amongst facility based laboratory technicians and establishing two-laboratory hubs in each intervention county.



Read: Supply Chain Case Study



"Now when we come to the clinic, in the NTD ledger we can check now and find cases that the clinician... they are sitting there and we checked the charts also you can find those cases them there, but before to find case or even self-see things in the ledger, it can be hard. For now, we are seeing case, we seeing, we the data people that the case we can make out of figures so we are getting now on the server."

District Health Worker, Grand Gedeh County



Outcome Two: Engaging persons affected, families and communities in decision making that affects them promotes inclusion, reduces stigma and is central to equitable person-centred care.

Key Impact Seven: Peer advocates and peer support groups foster social inclusion, community participation and promote good mental wellbeing to generate a network of persons affected by NTDs in Liberia.

People affected have been engaged from the start, and across all stages of REDRESS project cycle through a range of avenues – community advisory board members, co-researchers, photovoice participants, peers support groups. Involving diverse stakeholders through community advisory board, and use of participatory research methods with typically unheard voices e.g. traditional and faith healers has strengthened community awareness work and intervention design, leading to improved case detection and empowerment of persons affected.



Read: Empowerment Case Study

Peer advocate training equipped persons affected with knowledge about their condition, communication skills, and the ability to support others facing similar challenges by working together to establish peer support groups. The 6 peer support groups that REDRESS supported to establish are led by persons affected with guidance and support from the health system. Support groups focus on holistic components of wellbeing including: mental health literacy; livelihood support/economic empowerment; advocacy and awareness; and self-care (including wound care), and have fostered increased social participation and inclusion for persons affected contributing to enhanced mental wellbeing. Emmanuel Zaizay, is a peer advocate and has co-ordinated the involvement of persons affected throughout the REDRESS programme. Emmanuel was able to attend the non-governmental network for NTDs conference in 2023 and was introduced to an international network of peer advocates IDEA [International Association for Integration, Dignity and Economic Advancement]. He delivered a presentation on REDRESS's personcentred approach in the treatment of individuals with severe stigmatising skin diseases and was inspired to work toward the formal registration of a network of persons affected by NTDs as an organisation of persons with disability in Liberia, with support and advice from the IDEA network.

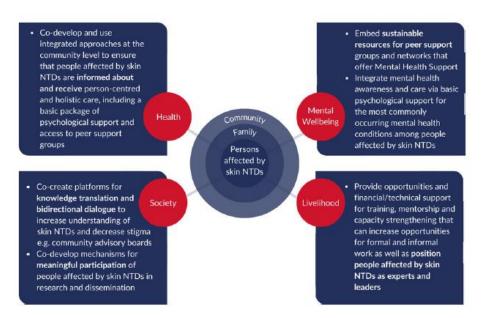


Figure: Linking our key learnings to the World Health Organisation's 'Strategic Framework for integrated control and management of skin-related Neglected Tropical Disease (NTDs), Empowering persons affected by skin NTDs at the community level'.





Read: Participation and Inclusion Case Study

Participation and inclusion of persons affected by skin NTDs has increased at multiple levels, contributing to reduced experiences of stigma and associated violence. For example, stigma towards persons affected by skin diseases among health workers declined, improving quality of care. At baseline 12.5% of community health volunteers agreed that "Skin NTD problems are caused by witchcraft or curses". This reduced to 6.8% at end line.

Key Impact Eight: Training and sensitisation can foster positive relationships between health workers and traditional and faith healers, adjusting beliefs about the cause of skin NTDs among informal providers, reducing treatment delays and improving timely referral.

Traditional and faith healers often hold significant cultural and societal influence in the management of skin NTDs due to their trusted positions within the community and beliefs about disease origins (Chandler, 2016). Recognising their key role, and willingness to work with formal health systems, REDRESS partnered with informal providers to codevelop interventions on identifying symptoms of NTDs, stigma reduction and basic psychological support. Training, sensitisation and involving them in referral systems contributed to enhanced case detection and timely referral to formal healthcare settings, reducing delays in treatment. For example, traditional and faith healers worked with community health assistants through pre-existing community engagement platforms to identify skin NTD cases. Faith and traditional healers also filled gaps in uneven and varied availability of mental health service provision at facility level due to their roles in providing holistic and spiritual care. Further, integrating traditional healing practices with biomedical approaches for case management of skin NTDs can offer a more comprehensive and holistic care strategy, enhancing treatment outcomes. Respect and recognition of roles was key to building relationships and collaboration between formal and informal health systems, this allowed each health actor to manage relevant components of skin NTDs: faith and traditional healers the spiritual and health workers the biomedical and social.



Outcome Three: REDRESS evidence has informed the development of personcentred policies at national and global levels catalysing on trusting and equitable partnerships.

Key Impact Nine: The strong collaboration between the Ministry of Health Liberia, research partners and NGOs within REDRESS has led to the inclusion of REDRESS findings within NTD and other health strategies nationally and to their adoption in other country settings, informing global policy.

Masterplan for Neglected Tropical Diseases 2022-2027 now includes strategic objectives and activities that focus on:





- ✓ Supply chain systems strengthening and the inclusion of NTDs in the eLMIS
- ✓ Fostering collaboration with traditional healers and faith healers
- ✓ Data systems strengthening
- ✓ Utilisation of enhanced human resource management practices, including adult based learning within training and supervision

The strength of collaboration enabled REDRESS to influence technical guidance and policy within Liberia, specifically the national 'Masterplan for Neglected Tropical Diseases 2022-2027'and the ongoing revisions to the community health strategy. Within Liberia, REDRESS evidence has also contributed significantly to the design and delivery of the TRANSFORM programme which is scaling up integrated case management for skin NTDs to all counties in Liberia. Regionally, REDRESS evidence has been used to inform the design and delivery of integrated case management activities in Nigeria and Democratic Republic of Congo. At international level, REDRESS evidence has also informed the Essential Care Package for Mental Health, Stigma and NTDs produced in collaboration with the World Health Organisation and the NGDO Network on NTDs.



REDRESS has supported to establish a peer advocacy network for persons affected by skin NTDs. Resulting from the peer advocate training and establishment of peer support groups, coupled with exposure to organisations of persons affected in other countries, the network for persons affected by skin NTDs in Liberia is working toward registration as an official organisation of persons with disability.

'...when I go talking to persons affected, I show them my conditions...they get convinced that 'I can make it'...he is serving as an ambassador for our project and he's serving as a peer advocate for persons affected...that alone can help change our community' Emmanuel Zaizay, Person Affected, Lofa County

What have we produced in REDRESS? Publication of one peer-reviewed article and 13 open access knowledge products that raise the profile 2020 of skin NTDs within global health agendas. Collaborative development of 5 articles and 4 additional linked papers and 34 open access 2021 knowledge products that raise the profile of skin NTDs and approaches to integrated inclusive personcentred health systems strengthening within global health agendas. Collaborative development of 8 articles and 31 open access knowledge products that raise the profile 2022 of skin NTDs and approaches to integrated inclusive person-centred health systems strengthening within global health agendas. Collaborative development of 12 articles and 45 open access knowledge products that raise the profile 2023



Outcome Four: REDRESS enhanced capacity for country owned, sustainable health systems research and delivery by including a diverse range of stakeholders from across multiple systems levels.

of skin NTDs and approaches to integrated inclusive person-centred health systems strengthening

Key Impact Ten: Improved capacity for research fellows, co-researchers and MOH staff has positive impact individually through their own personal growth and development, for the wider health system and at national level, as they apply new skills and knowledge within routine work at various levels within the health system.

Capacity strengthening for applied health systems research requires action at multiple levels: at the individual level (for example nurturing a cohort of interdisciplinary research fellows); at the organisational level (for example developing systems and processes for safeguarding); and at the national level (for example capacity strengthening of the health system to utilise research evidence). Partnerships with co-researchers (including persons affected, community health workers, traditional and faith healers) has strengthened the capacity of the whole research team and built inclusive and sustainable research ecosystems for impact.



Read: Capacity Strengthening Case Study

within global health agendas.

REDRESS has enhanced capacity for health systems research and delivery across all health systems levels and stakeholders which has promoted country ownership and sustainability of REDRESS evidence. REDRESS recruited and supported 4 multidisciplinary Research Fellows linked to each of our core research themes. REDRESS has also supported PhD students, who are taking forward innovative and complementary research projects. In addition, co-researchers have been central in guiding REDRESS through their lived experience as persons affected and as health workers caring for persons affected. The co-researcher role has positive impact individually with new skills and for the wider community and health system, with application of skills learned in routine work. Reflections from many of the co-researchers within REDRESS has led to our 10 steps toward community empowerment.

10-step journey of community empowerment for skin NTDs





Outcome Five: Equitable research partnerships enable adaptability to respond to new needs; we undertook joint research to support the needs and priorities of national stakeholders during and after COVID-19.

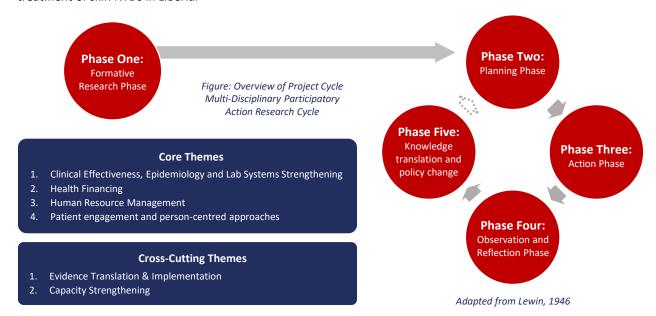


Global pandemics require lesson learning and sharing across diverse contexts, we enabled the sharing of lessons from Liberia (where there is a wealth of experience of community led epidemic responses) to Liverpool, Merseyside and the UK. We also distributed PPE to frontline health providers and communities in Liberia who were greatly in need and documented the lived experiences of people with disability to advocate for more inclusive health promotion messaging.

How did REDRESS achieve this impact?

REDRESS comprised of five phases. We worked synergistically on four core, and two cross-cutting research themes across each of these phases to co-produce and evaluate the REDRESS intervention with people affected by NTDs, traditional and faith healers, community health workers, health facility staff, the Ministry of Health and International partners. REDRESS interventions directly addressed programmatic implementation challenges, alleviated barriers to access and acceptance of care, and ensured equitable and sustainable identification and treatment of skin NTDs in Liberia.

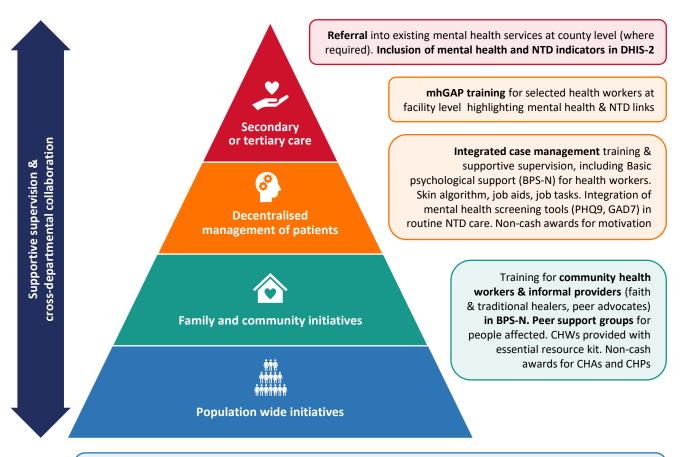




During our **formative phase**, to evaluate existing integrated approaches for the early detection, referral and treatment of skin NTDs, we conducted:

- 2 scoping reviews, including: understanding human resource management for health workers caring for
 people affected by NTDs, <u>understanding the barriers and enablers</u> to health seeking by persons affected by
 skin NTDs.
- 4 Focus Group Discussions with district health teams and facility staff
- 102 In depth interviews with health systems actors
- 6 Participatory vignettes with traditional healers, black baggers, faith healers
- 3 Participatory stepping stones workshops with patient advocates
- 3 Life histories with patient advocates
- Photovoice with CHAs, CHPs, traditional healers, faith healers

During the planning phase, to co-create new and adapt existing interventions together with community and health system stakeholders we convened a series of participatory planning workshops and technical working groups. The interventions designed drew on expertise from multiple disciplines to align to our systems approach to strengthening service delivery for skin NTDs.



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.

The REDRESS intervention is further detailed in the REDRESS intervention manual and described in 'the intervention' below. Cascade training to deliver the intervention led to the training of:



To evaluate our intervention and to make recommendation for quality improvement and scale-up of integrated skin NTD interventions in Liberia, we conducted a process and impact evaluation that utilised participatory, qualitative and quantitative research methods at key time points.

REDRESS Evaluation Timeline Impact evaluation Process **Baseline Data Collection** Jun 22 Focus Group Discussions with traditional healer and faith healer (6) Sept 22 In-depth interviews with person affected (12) Focus Group Discussions with CAB (3) In-depth interviews with NTD Focal Points (3) In-depth interviews with co-researchers (4) Body-mapping with persons affected (6) Social mapping with persons affected (6) Community Focus Group Discussions (6) Health Worker Survey () Health Facility Ledger collection and analysis of HMIS data () **Training Roll Out Data Collection** Sept 22 Training Observation and Report Analysis (19) Oct 22 Post-training Focus Group Discussions with training participants and facilitators (36) Person Affected Survey Time Point One Oct 22 **Ongoing Evaluation Data Collection** Reflective diary with OIC, CHSS, CHA, CHP, traditional healer, faith healer, affected person, Sept 23 lab technicians (48) Photovoice with persons affected (20) **Endline Data Collection** Jul 23 Person Affected Survey Time Point Two Focus Group Discussion with person affected in peer support group (3) Focus Group Discussion with health workers – facility level, CHAs, CHPs, DHMT (12) Key Informant Interviews with county health team (12) Key Informant Interviews with national and international level stakeholders (14) Focus Group Discussions with traditional healer and faith healer (6) In-depth interviews with person affected (12) Focus Group Discussions with CAB (3)

Spotlight on Equitable Partnerships

Oct 23

REDRESS participated in an external evaluation of NIHR funded programmes conducted by ECORYS which assessed the extent to which the award "built equitable partnerships and thematic networks in global health research and influenced good practice more broadly?" REDRESS scores highly (4/4) and the report notes "REDRESS committed significant time at the proposal development stage and the first year of the award to establishing organisational structures, ways of working, and partnership values and principles that would support the MoH's leadership of the award and support its multi-partner, multi-disciplinary team to work effectively. MoH officials oversee the award through participation in strategic Ministry of Health (MoH) working groups on both mental health and human resource management, the MoH Technical Advisory Board (TAB), and the Steering and Management Committees."

In-depth interviews with NTD Focal Points (3) In-depth interviews with co-researchers (4) Ripple effect mapping with co-researchers (2)

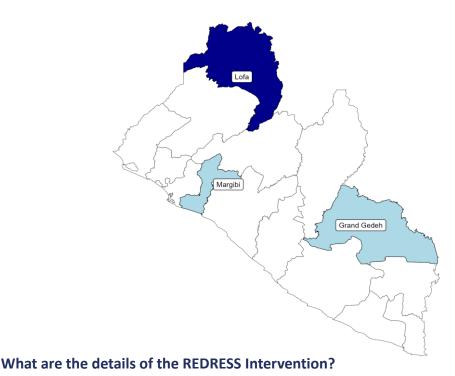
Person Affected Survey Time Point Three

Health Facility Ledger collection and analysis of HMIS data ()

Health Worker Survey ()

Where did REDRESS work?

In REDRESS, we choose study counties that allowed us to explore the feasibility of new interventions to support quality improvement of existing approaches to integrated case management. We also choose additional counties to explore scale-up of integrated case management approaches to counties where no integrated case management was taking place. Lofa county was purposively selected by the national NTD programme as the county for the quality improvement element of our intervention from the five counties where supported integrated case management was currently ongoing when REDRESS began. Two additional counties were also selected from those where no support for integrated case management had previously been provided to explore the feasibility of scale-up of our 'intervention bundle'. Selecting multiple counties as action sites supports the generalisability of findings to other counties in Liberia as well as other countries within the Mano River Union, West and sub-Saharan Africa undertaking the integrated management of skin NTDs. The two additional counties were purposively selected to maximise diversity in: Population Size; number of health facilities; and distance by road from county capital to Monrovia.



Population Wide Initiatives

- ✓ Sensitisation for faith healers, traditional healers and peer advocates, was provided as part of an integrated training cascade. Training materials were informed by the NNN stigma guides to promote enhanced understanding of the causes of skin NTDs, case detection, address stigma, support diagnostic communication and provide emotional support. This included the distribution of posters to communities.
- ✓ Advocacy and awareness campaigns were conducted in communities and on local radio stations. These activities were led by community advisory boards, established at county level and inclusive of leadership from sub-sections of the local population, including: women's group leaders, local community chairmen's, organisations of persons with disability, people affected by NTDs, informal provider representatives, and key non-governmental organisations.

Family and Community Initiatives

- ✓ Training for community health assistants, faith healers, traditional healers and peer advocates in integrated approach including a focus on case detection, mental health and stigma prevention.
- ✓ Establishment of peer support groups to bring together people affected by skin NTDs.
- ✓ Essential resource kit provided for CHAs and CHPs, including raingear, rain boots and a protective cover for job aids.

Decentralised Management and Support to People Affected

- ✓ Training on integrated case management: This training included case detection, diagnosis and management, including mental health and stigma prevention and was provided for CHSS, OICs, second screeners, as well as supervision staff at district and county levels.
- ✓ Trainers and CHSS were trained in adult learning approaches: with participatory approaches used to develop training resources and related materials, as well as adult learning applied throughout all trainings delivered.
- ✓ Training for laboratory staff: One lab technician from each facility took part in a one-day training about sample collection and testing, as well as a three-day training for staff from two lab referral hubs per county.





- ✓ mhGAP training was also provided to a selected number of health facility personnel (n=60) to
 ensure access to appropriately trained mental health clinicians where necessary.
- ✓ Job tasks revised and shared with staff.
- ✓ Regular problem-solving meetings with county NTD FP where health workers discuss challenges and identify solutions together.
- ✓ Chatrooms were established where health workers can share questions and seek advice from those more experienced with caring for persons affected by NTDs. These were an innovation by the health workers themselves.
- ✓ Job aids and manual were developed to support health workers at facility and community levels to identify, refer, diagnose and manage patients, as appropriate. These included the integration of mental health, with PHQ9 and GAD7 tools included into the clinical algorithm, as well as basic psychological support resources, including look listen link for CHAs and CHPs.
- ✓ Non-cash awards scheme introduced during training and followed up during routine supervision, encouraging facilities and community level actors to introduce actions to strengthen NTD case detection and care.

Secondary or Tertiary Care

- ✓ Referral to secondary or tertiary level care providers was encouraged (where necessary) through the provision of clear referral guidelines and pathways through referral structures.
- ✓ Integration of mental health and NTD indicators within the DHIS-2 reporting tools e.g. proportion of new skin NTD cases screened for mental health conditions.
- ✓ Integration of supervision structures: Revision of supervision tools, and inclusion of mental health (and community health) focal persons as part of regular NTD supportive supervision.
- etween multiple MoH departments was enabled at

MENTAL

Cross-departmental working and collaboration between multiple MoH departments was enabled at national and county level by establishing a national technical working group to support training material development and adaptation.





References

- 1. A, J., Row, P. and Das, S. (2010). Assessment of needs and quality care issues of women with leprosy. Leprosy Review. 81 (34-60).
- 2. Asian Development Bank (2010). Women in Bangladesh: Country Briefing Paper. Available at https://www.adb.org/documents/women-bangladesh-country-briefing-paper.
- 3. Rao, S., Garole, V., Walawalkar, S. et al. (1996). Gender differentials in the social impact of leprosy. Leprosy Review. 67 (1-10).
- 4. Rathgeber, E. and Vlassof, C. (1993). Gender and Tropical Disease: A New Research Focus. Social Science and Medicine. 37(4): 513-520.
- 5. Tolhurst, R., de Koning, K., Price, J. et al (2004). The challenge of infectious diseases: Time to Take Gender into Account. *Journal of Health Management*. 135 (4).
- 6. Ty, L. (2006). Gendered Experiences: Marriage and the Stigma of Leprosy. Asia Pacific Disability Rehabilitation Journal. 17 (2).
- 7. Engelman, D., Fuller, LC., Solomon, AW. et al. (2016). Opportunities for Integrated Control of Neglected Tropical Diseases that Affect the Skin. *Trends in Parasitology*. 32(11):843-854.
- 8. Mitja, O., Marks, M., Bertran, L. et al. (2017). Integrated Control and Management of Neglected Tropical Skin Diseases. *PLoS NTDs*. 11(1).
- 9. Hay, R. (2016). Skin NTDs: an opportunity for integrated care. Trans R Soc Trop Med Hyg. 110: 679-680.

Collaborating Partners:















Affiliated Partners:





This work was supported by the National Institute for Health Research (NIHR), Research for Innovation for Global Health Transformation. This project was led by REDRESS, a collaboration between the Liberia Ministry of Health, the Liverpool School of Tropical Medicine (LSTM), the University of Liberia-Pacific Institute for Research and Evaluation (UL-PIRE), Actions Transforming Lives (ACTS), Effect Hope, American Leprosy Mission - AIM Initiative, Queen Margaret University, and is funded by the National Institute for Health Research (NIHR).

Affiliated partners include The Carter Center and Anesvad Foundation.

Acknowledgements:

This case study was produced on behalf of the REDRESS partnership. For all collaborating partners and authors, please see the project executive summary.

This project is funded by the National Institute for Health Research (NIHR) [REDRESS: Reducing the Burden of Severe Stigmatising Skin Diseases through equitable person-centred approaches to health systems strengthening (project reference NIHR200129)/Research and Innovation for Global Health Transformation]. The views expressed are those of the author(s) and not necessarily those of the NIHR or the Department of Health and Social Care.



