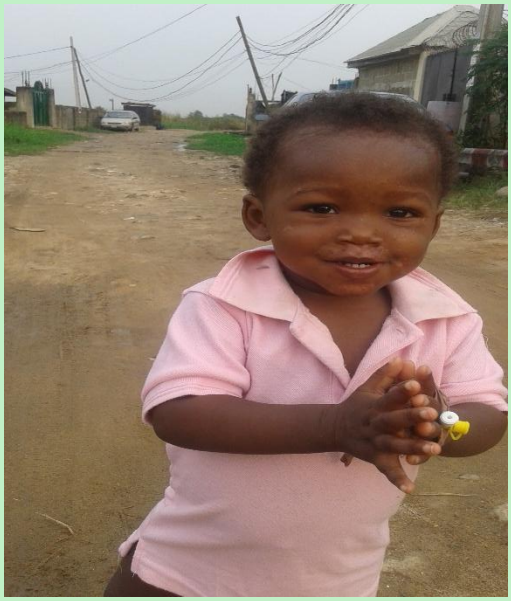
Concept Note



Accelerated Health Access for Sickle Cell Children in Crises-Hit Communities in Northern Nigeria

Project Title	Accelerated Health Access for Sickle Cell Kids in Crises-Hit Communities in Northern Nigeria
Organization	GoGreen Environmental Health Sustainability Initiatives
Funding Target	USD 97,000
Target Period	Sept 2026 - Sept 2027
Prepared by	Victor Adole, Project Lead

Executive Summary

Northern Nigeria faces a catastrophic hemoglobinopathy crisis. Nigeria now accounts for **over 1.5 million children under 15 living with sickle cell disease (SCD)**—the largest national childhood SCD burden worldwide—placing enormous pressure on families and health services. **An estimated ~150,000 babies are born with SCD in Nigeria each year**, sustaining a high pediatric caseload and urgent need for lifelong care.

Conflict, communal violence, and repeated displacement in parts of northern Nigeria (including Benue and neighbouring states) have **disrupted routine health services, immunization, and chronic-care continuity**, worsening outcomes for children with chronic blood disorders. The recent Lancet Commission documents how conflict-driven service breakdowns cause most excess deaths through indirect health system collapse. A field study of IDP camps in Benue shows that insecurity, distance, and cost double or triple access barriers for people with chronic conditions.

This project will provide **monthly hydroxyurea and an integrated package of clinical, preventive, and community services** for **500 children** with SCD and transfusion-dependent beta-thalassemia in **Benue and Nasarawa** for 12 months.

About us

GoGreen Environmental Health Sustainability Initiatives is a youth-led Nigerian non-profit dedicated to improving public health, strengthening community resilience, and advancing human development in underserved and crisis-affected communities. Operating across Benue, Nasarawa, and the Federal Capital Territory, we design and deliver evidence-based, community-centred programs that protect vulnerable children and families, build local capacity, and create sustainable pathways to better health, nutrition, and social outcomes under our Human Development pillar.

Our frontline work in rural communities and internally displaced persons (IDP) camps has exposed us to the harsh realities families face when a child has a chronic illness: interrupted medication supplies, missed immunizations, long travel distances to clinics, and catastrophic out-of-pocket costs. These experiences shape our program design, which prioritizes mobile outreach, community health worker networks, newborn screening, and flexible service delivery so that children with sickle cell disease and transfusion-dependent beta-thalassemia can access continuous, lifesaving care even in fragile settings.

We implement programs through **strong partnerships with government, clinical, and community institutions to ensure quality, accountability, and sustainability**. For this project, we are collaborating with the **Nasarawa State Ministry of Health, Benue State Ministry of Health, Federal Medical Centers and tertiary referral hospitals, established diagnostic laboratories and blood transfusion services, and local community leaders and civil society organizations** to provide clinical oversight, laboratory confirmation, safe transfusion pathways, and alignment with state health priorities.

GoGreen brings proven operational capacity and donor-grade systems to this intervention, having implemented the Agropastoral Integration for Peace and Sustainable Development project under the SPRiNG programme funded by the UK Foreign, Commonwealth & Development Office (FCDO). This sickle cell and thalassemia initiative advances SDG 3 (Good Health and Well-Being), and SDG 10 (Reduced Inequalities) by reducing childhood morbidity and mortality and prioritizing equitable access for displaced and rural families.

Background and Problem Statement

Scale and urgency. With >1.5 million affected children and ~150,000 new SCD births annually, Nigeria's pediatric SCD burden is unparalleled. Without early diagnosis and treatment, many children die or suffer repeated crises.

Service disruption in Benue and Nasarawa. Recurrent displacement and insecurity have caused clinic closures, interrupted medication supplies, and reduced routine immunizations and prophylaxis—critical gaps for SCD and transfusion-dependent thalassemia patients who require continuous care.

Treatment gap. Hydroxyurea is a proven, affordable therapy that significantly reduces vaso-occlusive crises, transfusion needs, and organ damage in children with SCD, yet access remains limited in Nigeria due to cost, supply interruptions, and low clinician capacity.

Thalassemia context. Beta-thalassemia is less common than SCD but present and often underdiagnosed; co-inheritance and diagnostic uncertainty complicate care for some children. Targeted transfusion support and diagnostic confirmation are needed.

Project Goals and Objectives

Ensure uninterrupted, comprehensive care for 500 children with sickle cell disease and transfusion-dependent beta-thalassemia in Benue and Nasarawa States by providing monthly hydroxyurea and an integrated package of clinical, preventive, and community services for 12 months.

Objective	Interventions
Monthly Hydroxyurea and Related Medications Access	Monthly supply of hydroxyurea (weight-based pediatric formulations) dispensed at partner clinics and mobile outreach points
	Adjunct medications and supplies provided alongside hydroxyurea: folic acid; oral penicillin V prophylaxis (where indicated for young children); pediatric analgesics (paracetamol/ibuprofen) for pain management; antipyretics; basic wound care supplies
Mobile Community Clinics for Displaced and Rural Children	Monthly mobile clinic visits to targeted Internally Displaced Persons (IDP) sites, remote villages, and peri-urban settlements in Benue and Nasarawa States. On-site clinical services: hydroxyurea dispensing, clinical review, basic laboratory testing (point-of-care hemoglobin, malaria RDTs), wound care
Immunization Catch-Up for Children with SCD	Provide priority vaccines, including pneumococcal conjugate vaccine (PCV), Haemophilus influenzae type b (Hib) vaccine, meningococcal vaccine, and routine childhood vaccines (DTP, OPV/IPV, measles, yellow fever where indicated).
Newborn Screening and Maternal Counselling	Point-of-care newborn screening (heel-prick or rapid diagnostic tests) at partner maternity units and during postnatal outreach visits. Maternal and family counselling: genetic counselling on carrier status, implications for future pregnancies, partner testing facilitation, and psychosocial support.

Expected outcomes:

- 500 children receive uninterrupted monthly hydroxyurea and adjunct care.
- Reduction in mean annual vaso-occlusive crises per child and fewer emergency visits and hospital admissions.
- Reduction in annual transfusion events per child for those with transfusion-dependent conditions.
- Increased immunization coverage among enrolled children and newborns screened and linked to care

Long-term impact

- Lower childhood morbidity and mortality from SCD and transfusion-dependent thalassemia
- Institutionalized an expanded newborn screening pathway and genetic counselling for internally displaced families
- Reduced catastrophic health expenditures for families

Monitoring & Evaluation

Key Performance Indicators

- Number of children receiving monthly hydroxyurea (target 500).
- Mean annual vaso-occlusive crises per child (baseline vs endline).
- Annual transfusion events per child (baseline vs endline).
- Number of newborns screened and linked to care

Sustainability

- This project will integrate beneficiary records with facility registries, so hydroxyurea provision, newborn screening, and immunization catch-up are embedded into routine pediatric services. When children are found in IDP camps, we will update our registry and promptly share those records with the relevant catchment-area hospital to ensure continuity of care
- **Financial sustainability** will be pursued through a targeted subsidy/cost-sharing model that protects the poorest families while transitioning recurring costs to predictable domestic financing.
- **Operational sustainability** focuses on local capacity. The project will train clinicians, laboratory staff, and Community Health Workers (CHW) in pediatric hydroxyurea management and transfusion safety

Budget Summary

S/N	Category	Basis / Unit	Quantity	Unit cost (USD)	Total (USD)
1	Hydroxyurea (pediatric)	Monthly dose per child	500 children × 12 months	$8.75	$52,500
2	Adjunct medicines & consumables	Folic acid, penicillin, analgesics, supplies (annual)	Lump sum	$3,750	$3,750
3	Clinical monitoring & labs	Baseline + quarterly FBCs, POC tests	500 children	$10,000	$10,000
4	Mobile clinic operations	Vehicles, fuel, cold-chain, outreach (annual)	12 months	$7,500	$7,500
5	Vaccination catch-up	PCV, Hib, meningococcal, routine vaccines (outreach)	Annual program	$5,000	$5,000
6	Newborn screening & confirmatory tests	POC kits + confirmatory diagnostics	Annual program	$3,125	$3,125
7	Malaria protection	ITNs, SMC coordination, RDTs/ACTs	Annual program	$1,875	$1,875
8	Training & capacity building	Clinician, lab, CHW workshops	4 workshops	$2,500	$2,500
9	M&E, data systems & registry	Electronic registry, dashboards, reporting	Annual	$1,875	$1,875
10	Community engagement & caregiver support	CHW stipends, peer groups, SMS reminders	Annual	$1,250	$1,250
11	Administration & logistics	Project management, office, communications	Annual	$2,500	$2,500
12	Contingency (5%)	Risk buffer for stockouts, transport	Percent of subtotal	$4,594	$4,594
13	**Total (USD)**				**$96,469**

References

Hydroxyurea in the sickle cell disease modern era
https://pmc.ncbi.nlm.nih.gov/articles/PMC11428029

World Health Organization. Sickle-cell disease: a strategy for the WHO African Region. WHO publications and country estimates. https://www.who.int/news-room/fact-sheets/detail/sickle-cell-disease

Piel FB, et al. Global epidemiology of sickle haemoglobin in neonates: 2010–2050. *Lancet Haematology* and related global burden analyses. https://www.thelancet.com/journals/lanhae

Global and national estimates of SCD births and prevalence (peer-reviewed meta-analyses and WHO regional reports). https://www.who.int/health-topics/sickle-cell-disease

The Lancet Child & Adolescent Health. Conflict and child health: indirect effects of health-system collapse in conflict settings. (Lancet Commission and related articles).
https://www.thelancet.com/journals/lanchi/article/PIIS2352-4642(26)00160-4/fulltext

Hydroxyurea (hydroxycarbamide) for sickle cell disease -Hydroxyurea (hydroxycarbamide) for sickle cell disease - PMC

WHO and national immunization guidelines for children with SCD (PCV, Hib, meningococcal vaccines). https://www.who.int/immunization