



**Humanitarian Development Peace Nexus:
Strengthening a Decentralized Health System for
Protracted Displaced Population (HealthPro) in
Kutum, Umbaru, and Serf Umra - North Darfur State.**

Midterm/Endline Evaluation Report



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List of Acronyms and abbreviations

CHC	Community Health Committee
CHW	Community Health Worker
DAC	Development Assistance Committee
DG	Director General
DHIS	District Health Information System
FGD	Focus Group Discussion
FMOH	Federal Ministry of Health
HAC	Humanitarian Aid Commission
HMIS	Health Management Information Systems
HRH	Human Resources for Health
IDP	Internally Displaced Persons
KII	Key Informant Interview
LHD	Locality Health Department
MEAL	Monitoring, Evaluation, Accountability and Learning
NHIF	National Health Insurance Fund
NIPP	Nutrition Impact and Positive Practice
NMSF	National Medical Supplies Fund
NNGO	National Non-Governmental Organisation
OECD	Organization for Economic Cooperation and Development
PHC	Primary Health Care
SBCC	Social Behavior Change Communication
SHF	Sudan Humanitarian Fund
SMOH	State Ministry of Health
VSLA	Village Savings and Loan Associations
WHO	World Health Organisation

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Executive Summary

Background

Sudan has one of the lowest ratios of physician density in the world standing at 0.26 per 1,000 population in 2017 and has struggled to sustain an adequate supply of medicines and medical items due to the economic crisis and hard currency shortages. North Darfur state is one of the eighteen states of Sudan with a population of 2,827,155 people. North Darfur State alone still hosts 480,828 IDPs and the region continues to experience unresolved conflict, and chronic levels of poverty, along with weak and sometimes non-existent government structures.

About GOAL, Sudan

Since 1985, GOAL has been supporting the government of Sudan in response to the humanitarian and development needs through integrated programmes in nutrition, health, WASH, food security and livelihoods with operations in North Darfur and South Kordofan. It is currently supporting Primary Health Care (PHC) services in 17 facilities across Kutum and Al-Waha localities, North Darfur. To respond to the changing security and political context in Sudan, GOAL has developed the HealthPro project to build local capacity, mainly of the Locality Health Department (LHD), to manage and deliver primary healthcare in the targeted localities.

About the Project

HealthPro is a project funded by the European Union Trust Fund. It is part of a wider EUTF project implemented with Italian Cooperation. It aims to build the capacity of the North Darfur State Ministry of Health (SMoH), National Health Insurance Fund (NHIF), National Medical Supply Fund (NMSF) the Locality Health Departments (LHDs) of Kutum, Umbaru, and Serf Umra, 10 Primary Health Care (PHC) facilities, and community structures within the catchment areas of the health facilities for sustained delivery of health services in the areas. In addition, the project provides targeted reproductive health support to Serf Umra Rural Hospital to strengthen the referral linkages with the PHC facilities in the locality.

Goal and Objective of the Midterm/Endline Evaluation

The main objective of the evaluation was initially to assess the early impact of the HealthPro on the beneficiaries, document lessons learned, and identify best practices at the midterm. Additionally, it aimed to assess GOAL's performance in strengthening the health systems in North Darfur State. Later on, the main objective of the evaluation was revised to include conducting an endline evaluation.

Approach to the evaluation.

The evaluation used the OECD DAC Criteria that is; Relevance, Coherence, Effectiveness, Efficiency, Impact and Sustainability. The evaluation also documented Recommendations, Best Practices, and lessons learned.

Methodology

Study Design

The Midterm/endline evaluation employed a cross-section study design using both qualitative and quantitative methods of data collection.

Study Area

The midterm/endline evaluation was carried out in three localities of North Darfur; Kutum, Umbaru, and Serf Umra.

Targeted Respondents:

The respondents of the Midterm/endline evaluation included;

GOAL Partners- National Health Insurance Fund (NHIF) director, National Medical Supplies Fund (NMSF) director, State Ministry of Health (SMoH) staff, World Health Organisation, project officer at Italy, Agency for Cooperation and Development (AICS), Locality Health Department (LHD) staff.

National Non-Governmental Organisations (NNGOs); Program officer at Sudanese Hilef for Peace and Development Organisation (SHPDO) and Follow-up and evaluation officer at Friends and Peace Organisation.

At the community level- for the household survey, the evaluation targeted household heads including men and women. In Focus Group Discussions (FGDs), respondents included; Village Savings and Loans Associations (VSLA) members, Nutrition Impact and Positive Practices (NIPP) Circle members, members of Care Groups (CGs), Community Health Committees (CHCs), children in School Health Clubs.

At the organisation level- the Country Director and the Program Director at GOAL country office, the Project Coordinator, the Social Accountability Coordinator, the Health Systems Strengthening Coordinator, and the project monitoring and evaluation officer at GOAL El Fasher Area Office.

Sample Size and Sampling Strategy

Both Random and Non-random methods of sampling were used in determining the sample of respondents to participate in the study.

For the quantitative component, we employed the sampling procedure and sample size used at baseline to allow for comparison between the baseline and midterm/endline evaluation. Multistage sampling was used to select the households for individual interviews. A total of 12 villages, 4 towns, and 3 IDP camps were selected using simple random sampling. The sample size was 807 households represented by a designated household head.

For the qualitative arm of the evaluation, purposive sampling was employed to identify the participants of focus group discussions and key informant interviews. A total of 17 focus group discussions and 29 key informant interviews were conducted.

Data Collection

Both quantitative and qualitative techniques were used to collect primary and secondary data. Primary data was collected through household interviews, key informant interviews (KIIs), and focus group discussions while secondary data was collected through reviewing existing project reports and databases.

Data Analysis

STATA college station version 14 was used to summarize the quantitative data using frequencies, percentages, Median, Standard deviation, Median, and Inter Quartile Range (IQR). Thematic approaches were used to analyze qualitative data.

Ethical considerations

Approval to conduct the evaluation was obtained from the Humanitarian Action Commission (HAC). The evaluation followed internationally accepted ethical standards as guided by GOAL Sudan country office. Informed consent was obtained from all respondents before the interviews were conducted.

Summary of findings

Relevance

The HealthPro project was implemented through a humanitarian-development peace nexus approach, integrating efforts to address immediate humanitarian needs and long-term development goals through system strengthening. GOAL collaborated with state partners (SMoH, NHIF, and NMSF) to enhance service delivery and ensure project sustainability. At the community level, the approach focused on increasing NHIF coverage and implementing self-reliant initiatives (VSLAs, NIPP circles, Care groups and Schol health clubs), empowering communities for sustainable outcomes. While the humanitarian-development peace nexus approach remains relevant, given the current conflict and displacement in Sudan, prioritizing immediate humanitarian needs remains essential. This calls for a re-examination of the approach to ensure, that ambitious development goals are not hampered by the immediate humanitarian needs of the community.

HealthPro responded to beneficiaries, country, and partner needs, policies, and priorities through successfully coordinated collaborative efforts among NHIF, SMoH, NMSF, and other stakeholders to address their challenges. HealthPro's awareness campaigns and strategic partnerships significantly increased NHIF service awareness from 18.9% to 61.2%, with enrolment rising from 46% to 74.30%. This reduced the burden of out-of-pocket expenses on families. To address the vulnerability of the community, the project facilitated the formation of 303 VSLAs, empowering members to save money, engage in small businesses, and cover insurance premiums and healthcare costs. HealthPro prioritized the urgent need for functional healthcare facilities by rehabilitating ten (10) PHC facilities in all three localities. Geographical access to healthcare improved, as seen by a reduction in median travel time to a facility from 120 to 60 minutes in Serf Umra. The project also addressed service delivery challenges, resulting in improved quality of care, reduced waiting times, reactivated services, and cost reduction.

Through comprehensive needs assessments, utilising primary and secondary data, GOAL identified critical gaps in the health system, including low government expenditure on healthcare, human resource gaps, unclear roles and responsibilities, low DHIS reporting rates, weak management capacity, and delays in medicine and vaccine delivery. HealthPro aligned its interventions with the WHO Health Systems building blocks and the National Health Sector Strategic Plan II framework targeting key constraints across the six building blocks. However, the volatile context in Sudan, marked by civil unrest and the ongoing conflict, has posed challenges to HealthPro's strategy which was based on assumptions regarding Sudan's transition to a post-conflict era and the government's capacity to uphold its commitments. Additionally, the gradual transition from communicable to non-communicable diseases and the impact of COVID-19, emphasize the need for ongoing investment in disease surveillance, response and preparedness which goes beyond primary health care.

Generally, the HealthPro project has made significant strides in addressing healthcare challenges in Kutum Serf Umra and Umbaro, with successful collaborations, improved access and quality of care. However, ongoing conflict, financial constraints, and evolving healthcare contexts require continuous adaptation and investment to sustain and expand the project's impact.

Coherence

HealthPro's main goal of contributing to universal health coverage by increasing access to functional health facilities aligned with the all the national health plans and policies priorities. The project has contributed to reducing maternal and under-5 morbidities and mortalities by improving access to maternal and child services and enhancing immunization services. The project has also contributed to reducing communicable and non-communicable diseases through the construction of laboratories and

improved availability of essential medicines. Efforts have been made to address health inequities through the promotion of social health insurance and community awareness campaigns. HealthPro has strengthened health governance by equipping Local Health Authorities (LHAs) with resources, addressing staffing gaps, and facilitating training and supervision. People-centred family health services have been established through the reactivation of community health committees, fostering collaboration between healthcare providers and the community. The project has aimed to enhance the resilience of health and community systems by promoting health insurance, establishing VSLAs, expanding and improving health facilities, establishing laboratories, and engaging communities. However, there are still challenges in responding to emergencies such as outbreaks and pandemics, particularly in Serf Umra and Umbaru, due to HealthPro's focus on primary health care.

Effectiveness

Table 1: Matrix summarising the project's effectiveness towards achieving its targets

Indicator type/level	Indicator description	Baseline	Midterm / Endline	Target
Impact indicator	Percentage of the population in target areas with access to functional health facilities, disaggregated by sex and age?	33.58% M=34.45% F=32.75% < 5 yrs. = 35.60% 5-17 yrs. =30.56% 18-30 yrs. = 34.50% 31-59 yrs. = 35.17%, 60+= 37.16%	59.67% M= 68.67 % F= 57.50% <5yrs = 57.6% 5-17yrs = 58.9% 18-30yr = 57.6% 31-59yr = 59.1% 60+yrs = 58.8%	95%
Outcome indicator 1	Number of Locality Health Authority annual action plans where 60% of the recommendations have been implemented?	0%	82% Kutum, 62.8% Serf Umra, 38% Umbaru	60% for all three LHAs
Outcome indicator 2	Percentage of clinics providing NHIF services*	0%	90%	100%
Output indicator 1.1	Percentage of target area LHD with the operational office (facilities, equipment, staffing, and means of transport)?	33.3%	100%	100%
Output indicator 1.2	Number of community health committees formed, provided technical support by the Action, and actively participating in meetings at the LHD level?	0	10/10	10
Output indicator 2.1	number of HRH trained disaggregated by sex?	0	241 F=139 M=102	100
Output indicator 2.2	Percentage of the population that is aware of NHIF services' availability in their area?	18.89%	61.19%	90%
Output indicator 2.3	Number of targeted health facilities with trained staff on the NMSF supply management system?	0	10	10
Output indicator 2.4	Percentage of target localities reporting HMIS/DHIS 2 monthly?	20%	90%	100%
Output indicator 3.1	Percentage of health facilities in target areas providing full-package PHC services?	0	80%	100%
Output indicator 3.2	Number of people disaggregated by sex and age, including forcibly displaced and their	3.2: 0	97,228 M=41,188 F=56,040	136,815

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Indicator type/level	Indicator description	Baseline	Midterm / Endline	Target
	host communities, are receiving improved access to health?		< 1 yr.=20,736 1-4 yr. =15,102 5-14 yr. =15,807 15-44 yr. =26,551 45-64 yr. =11,706 65+ yr. =6,353 With disability = 684	
Output indicator 3.3	Number of people disaggregated by sex and age, including forcibly displaced and their host communities, are benefiting from nutrition-related treatment, sensitization to improved nutritional practices, and support for nutrition-sensitive agricultural practices?	0	11,736 (M=5,751 F=5,985) (2,727 were <5 years of age)	24,338
Output indicator 3.4	Number of target health facilities Rehabilitated and equipped?	0	10	10
Output indicator 3.5	Percentage of caregivers who reported that they took their children to a health facility when they had a fever?	78.57%	84.94%	90%
Output indicator 3.6	Number of NIPP circles (male plus female circles) established and functional to prevent malnutrition?	0	52 M= 15 F= 37	72

* This indicator was updated during the course of the project and replaced with the accreditation criteria.

Efficiency

The HealthPro project team effectively utilized resources by implementing cost-saving measures such as sharing vehicles and engaging the community in a participatory approach. The project leveraged existing infrastructure, rather than providing direct financial support. However, the simultaneous implementation of multiple interventions resulted in delays and inefficiencies. Staff recruitment, equipment procurement, and construction projects were affected consequently increasing the time and financial costs of implementing the project. Security issues caused significant delays in implementing project activities. Lengthy tendering processes, contractor misunderstandings, and changes in construction plans further impacted renovation and construction project timelines. Strong partnerships with stakeholders significantly improved project efficiency. Collaborative efforts, real-time issue resolution, and effective leadership minimized conflicts and facilitated implementation. Currency inflation increased the cost of implementation however this was addressed by minimising duplication of activities. Budget constraints, technical limitations, and the impact of the COVID-19 pandemic posed additional challenges.

Impact

The HealthPro project has made significant progress in improving access to functional health facilities, increasing from 33.6% at baseline to 59.7% during the evaluation period. This improvement is expected to have a positive impact on the health indicators of the target communities. However, a comprehensive analysis using population health indicators and complex sampling methods is necessary to accurately measure the project's impact on beneficiaries' lives. Nonetheless, testimonials from beneficiaries have highlighted additional benefits, including increased awareness of common illnesses, reduced reliance on local medicine, improved service quality, decreased vulnerability through VSLAs, and strengthened community bonds among diverse backgrounds and tribes.

While the project successfully enhanced geographical access to health facilities in Serf Umra, reducing median travel time to a facility from 120 to 60 minutes, Kutum and Umbaru experienced a decline in geographical access. Median travel time to a facility in Kutum increased by 15 minutes, as GOAL had previously provided free services, and the introduction of NHIF for these services led people to seek treatment in facilities still offering free services. In Umbaru, households enrolled in NHIF had a median travel time to a facility of 90 minutes compared to 18 minutes for those not enrolled. Given Umbaru's high enrollment rate of 86.5%, limited facilities meeting NHIF standards may be restricting healthcare access. Therefore, expanding the project beyond the current 10 facilities is crucial to accommodate the growing NHIF enrollment and improve geographical access to health services.

Sustainability

The HealthPro project aimed to shift Sudan's health system from aid dependency to self-sustainability. The project successfully strengthened the health system's capacity by securing commitments and agreements with NHIF, NMSF, and SMOH, enabling NHIF to procure services from SMOH facilities, SMOH to manage the facilities, and NMSF to provide cost-shared medicines. This approach made healthcare financing in the three localities reliant on SMOH, NHIF, and NMSF. However, sustaining the government's commitment to the HealthPro model has been challenging due to civil unrest and conflicts within the transitional government. Nevertheless, extensive consultations with key political leaders and alignment with the government's health agenda increase the likelihood of ongoing support and funding.

While HealthPro interventions have improved access to affordable and quality healthcare for vulnerable populations, 40.33% of communities still face limited access due to distance and cost. Moreover, 26.06% of the population lacks coverage under the NHIF insurance scheme, putting them at risk of high healthcare expenses during health emergencies. The project prioritized environmental sustainability through the use of durable materials, high-quality equipment, renewable energy sources like solar systems, and proper waste management practices. However, challenges persist, including water shortages and disruptions in service delivery due to natural events. To ensure social sustainability, HealthPro actively engaged both men and women in Social and Behavior Change Communication (SBCC) interventions. However, the oversight of cultural festivals during Sudan's Autumn season posed challenges to community participation in project activities.

Addressing the shortage of human resources in North Darfur's health system, GOAL collaborated with SMOH to recruit and deploy personnel, covering all incentives for PHC facility staff and transitioning them to the NHIF. The project also facilitated the training of trainers to ensure ongoing healthcare worker training. However, sustaining human resources remains a challenge due to the high number of volunteers in PHC facilities and the impact of high inflation on staff incentives.

Lessons Learned

Lessons learned from the HealthPro project include;

- The humanitarian-development peace nexus approach as employed by the HealthPro project is well-suited for contexts like North Darfur and has the potential for expansion.
- The involvement of NHIF, NMSF and SMOH as partners has been critical to the successful implementation of the project. This stresses the importance of effective stakeholder engagement and collaboration.
- The adaptability and flexibility of the HealthPro model allowed it to maneuver the several implementation challenges leading to the project's success.

- The project adopted a phased approach, gradually transferring project interventions to state partners and government structures. This approach facilitated a seamless transition from direct implementation by GOAL to government-led service delivery.
- The inclusion of a DHIS2 component in the project played a vital role in promoting data-driven decision-making at the locality and facility levels.
- The project needed to conduct an in-depth contextual analysis and have a comprehensive risk mitigation plan to ensure effective implementation in contexts like North Darfur.

Recommendations

To address the geographical and financial barriers to accessing health care, the project should be scaled up to other PHC facilities in Kutum, Umbaru and Serf Umra. Additionally, the project should devise innovative solutions such as utilizing mobile clinics or outreach programs and engaging community health workers to overcome geographical barriers to health care access.

The project should also identify opportunities for public-private partnerships with NHIF-compliant healthcare providers in remote areas and expand NHIF coverage while ensuring affordability through regular assessments.

To address the budget constraints of SMOH, GOAL should advocate for increased government budget allocation to healthcare, engage policymakers and donors and explore strategies to bridge the gap between public health expenditure and resource allocation.

To expand preventive services, GOAL should advocate for increased investment in preventive healthcare services by NHIF, NMSF, and SMOH, and strengthen the capacity of partnering NNGOs in fundraising and technical expertise to ensure the sustainability of SBCC interventions.

Addressing Human resource constraints will require advocacy for increased government investment in healthcare worker recruitment and retention, developing a comprehensive human resources management database, and utilizing health workforce census data to inform planning, budgeting, and systematic filling of human resource gaps.

To improve efficiency, GOAL should consider implementing measures such as sequential planning and execution, facilitated by tools like PERT diagram and Critical Path analysis, robust security plans, addressing procurement delays, simplifying bureaucratic procedures, proactive risk mitigation, strengthening partnerships and exploring multisectoral collaboration.

1.0 INTRODUCTION

This report presents the findings of the HealthPro project evaluation as set out by RineCynth Advisory Limited. The purpose of the evaluation was to assess the project using the OECD/DACs evaluation criteria relating to Relevance, Effectiveness, Efficiency, Impact and sustainability for learning and accountability and provides recommendations to improve future programming.

1.1 Background

Sudan has one of the lowest ratios of physician density in the world standing at 0.26 per 1,000 population in 2017, while the ratio of trained nurses and midwives is 1.157 per 1,000 population¹. Though health services are meant to be free in Sudan, given low coverage/ inefficient services, people rely on the weakly regulated private sector which further burdens the people in need due to increased out-of-pocket expenditure. Referral mechanisms are not well-regulated, adding to inefficiencies. Since 2017, Sudan has struggled to sustain an adequate supply of medicines and medical items due to the economic crisis and hard currency shortages.

North Darfur state is one of the eighteen states of Sudan with a population of 2,827,155 people (1,392,545 women and 1,434,610 men) and 1.3 million children (aged 0 -18)². North Darfur State alone still hosts 480,828 IDPs (27.3% of the total number of IDPs in Darfur), and the region continues to experience unresolved conflict, and chronic levels of poverty, along with weak and sometimes non-existent government structures.

There is evident inequality of access and uptake of health care services among and within states, with North Darfur having less than 50% of functional health care centres³. This is further supported by the Health Resource Availability Mapping Systems (HeRAMS for Q2 of 2018), which indicated that out of the 39 health facilities in Kutum, only 59% (23) are functional, and of those managed by SMOH, only 38% are functional. In Serf Umra, the exact mapping showed that only 17% (2 of 12) facilities are functioning, including the Rural Hospital. In Umbaru, 78% of facilities are identified as functional, but the mapping shows that most are only partially functioning, with significant gaps in health personnel and services, primarily related to laboratory services, reproductive health, and nutrition treatment.

In Umbaru and Serf Umra, the overall situation is marked by fee-based health services managed by SMOH, poor infrastructure both at the facility level and for the health system, and limited-service provision. In Umbaru, Médecins Sans Frontières previously supported two health facilities but, since 2018 has departed. Needs remain high, with the 2018 national S3M survey (led by the Ministry of Health) identifying the incidence of under-5 communicable diseases among the highest in North Darfur, including diarrhea and fever, but treatment capacity is low with only 28% of children identified with diarrhea receiving Oral Rehydration Solution (ORS).

In Serf Umra, as noted above, the functionality of health facilities is very low, with only about 16.7% of the population covered by functional facilities and the remainder forced to travel long distances for even essential health services. Serf Umra is at crisis levels of malnutrition, with a Global Acute

¹ OCHA (December 2021). Humanitarian Needs Overview Sudan, Humanitarian Response.

² Relief web (2022). North Darfur Situational Analysis Report.

³ JAR (2017). Joint Annual Review.

Malnutrition rate of 18% based on Mid-Upper Arm Circumference⁴. Only the rural hospital provides essential laboratory services and a medical doctor. Umbaru and Serf Umra are both very remote areas of North Darfur, and the Locality Health Authorities lack the infrastructure and staffing to manage the health system fully.

1.1.1 About GOAL Sudan

GOAL has been responding to a wide range of humanitarian and development needs in North Darfur since 2004. It is currently supporting primary healthcare services in 17 facilities across Kutum and Al-Waha localities, North Darfur. To respond to the changing security and political context in Sudan, GOAL has developed the HealthPro project to build local capacity, mainly of the Locality Health Department (LHD), to manage and deliver primary healthcare in the targeted localities.

The project is designed to strengthen the capacity of the decentralised health system in North Darfur to provide sustainable services in the target localities of Kutum, Serf Umra, and Umbaru in North Darfur, by increasing the quality of and demand for health services. Activities range from infrastructure rehabilitation and financial support to the health system to improving monitoring and supervision, quality assurance, and data collection for enhanced planning and decision-making. It links top-down approaches, via health systems strengthening, with bottom-up approaches via community systems strengthening so that demand, access, and quality of health service provision and delivery are optimized.

1.1.2 About the Project

HealthPro is a project funded by the European Union Trust Fund (EUTF). It is part of a wider EUTF project implemented with Italian Cooperation. It aims to build the capacity of the North Darfur State Ministry of Health (SMoH), National Health Insurance Fund (NHIF), National Medical Supply Fund (NMSF), the Locality Health Departments (LHDs) of Kutum, Umbaru, and Serf Umra, 10 Primary Health Care (PHC) facilities, and community structures within the catchment areas of the health facilities for sustained delivery of health services in the areas. In addition, the project provides targeted reproductive health support to Serf Umra Rural Hospital to strengthen the referral linkages with the PHC facilities in the locality.

HealthPro employs a health system strengthening (HSS) approach whereby project stakeholders jointly conduct capacity-building while gradually transitioning all health system functions of the targeted localities and facilities to the government. Ensuring the LHDs have the infrastructure, resources, and systems in place, linkage of the health facilities to the National Health Insurance Fund (NHIF), training health workers and managers, and infrastructure and equipment support to the health facilities and the National Medical Supplies Fund (NMSF) are among the critical project interventions at the level of institutions. Improving the Health Management Information Systems (HMIS) to strengthen planning, decision-making, and resource allocation in the decentralized system is another project focus area.

In terms of governance and accountability, HealthPro aims to ensure the three LHDs have qualified and skilled staff, infrastructure, facilities, systems, and tools to own the management of health service delivery in their locality. In addition, the project strengthens existing community-level social

⁴ Federal Ministry of Health (2018). National S3M survey.

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accountability mechanisms through capacity building and support to Community Health Committees (CHCs) to promote strong relationships between the target communities and service providers and ensure that services are shaped by feedback from users and are responsive to their needs.

In relation to healthcare financing, HealthPro promotes increased access to health insurance provided by the NHIF and financial risk protection, initially through financial support for premiums and other health system costs, while linking the poorest of the poor to community groups and social funds to promote sustainable financing of these costs. In addition, the project supports the establishment and registration of Village Savings and Loans Associations (VSLAs) to enhance the capacity of community members to pay for insurance. Thus, the project enables vulnerable households to access high-quality health services through a sustainable system, while avoiding financial hardship.

At the community level, HealthPro has rolled out GOAL's existing community-based preventative health and nutrition programming, including the Care Groups (CGs), Nutrition Impact and Positive Practice (NIPP), and School Health Clubs activities. The project provides technical and financial support to selected National Non-Governmental Organizations (NNGOs) to implement these interventions and awareness creation campaigns to promote healthy behaviors and mobilize communities to enroll on NHIF.

1.1.3 Goal and Objective of the Midterm/Endline Evaluation

The main objective of the evaluation was initially to assess the early impact of the HealthPro on the beneficiaries, document lessons learned, and identify best practices at the midterm. Additionally, it aimed to assess GOAL's performance in strengthening the health systems in North Darfur State. Later on, the main objective of the evaluation was revised to include conducting an endline evaluation.

To achieve the study objectives, the project was evaluated against the OECD DAC evaluation criteria of relevance, coherence, effectiveness, efficiency, impact/outcomes, and sustainability drew lessons and made recommendations for future similar projects.

2.0 APPROACH AND METHODOLOGY

The evaluation used the OECD DAC Criteria as demonstrated below:

Evaluation Criteria	Key Focus area/understanding	Data Collection Methods
Relevance	We assessed the extent to which the HealthPro projects' objectives and design responded to the beneficiaries, country, and partner/institution needs, policies, and priorities. We further evaluated the extent to which the project was relevant and appropriate for the context where it was implemented and the extent to which the basic principles of human rights, gender equality, inclusion, and respect for cultural background were incorporated into the project's design and implementation.	<ul style="list-style-type: none"> • Literature review • Key informant interviews • Individual interviews • Focus group discussions
Coherence	We examined the extent to which the project fitted and the extent to which it was compatible with the strengthening of a decentralized health system in the country as laid down by the FMOH strategy. Additionally, we examined the extent to which the intervention coordinates with other interventions of relevant actors in the same context and implementation area.	<ul style="list-style-type: none"> • Literature review • Key informant interviews
Effectiveness	We examined the extent to which the project had progressed toward achieving its set objectives and outcomes. The main focus was on the comparison of projects' targeted outputs and outcomes as specified in the project logical framework and activity Matrix, comparing achieved Midterm performance indicators against baseline indicators and values. The focus was on measuring the actual outcomes against the planned outcomes.	<ul style="list-style-type: none"> • Literature review • Data review in HMIS on selected indicators, Project M&E Framework, Activity Matrix • Key informant interviews
Efficiency	We assessed how economically the project resources (funds, staff, time, logistics, etc.) were utilized and converted into target results to ascertain value for money. We examined how the resources were utilized in the project implementation versus the results achieved.	<ul style="list-style-type: none"> • Literature review • Key informant interviews

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Evaluation Criteria	Key Focus area/understanding	Data Collection Methods
Impact	We sought to examine and establish the early impact of the project. The focus was put on examining the effect the intervention had on the lives of beneficiaries and in strengthening the health system. Both direct and indirect beneficiaries whether positive or negative, intended or unintended immediate or long-term identified and documented.	<ul style="list-style-type: none"> ● Literature review ● Key informant interviews, Individual interviews ● Focus group discussions, DHIS2 Data abstraction
Sustainability	We documented the steps that have been taken towards the sustainability of the project's benefits and the likelihood of continuation of the project's benefits/results after the end of the project. We specifically examined the existence of sustainable mechanisms and exit strategies that are in place, and the extent to which the project's beneficiaries and institutions are technically, financially, and managerially prepared to take on the project's benefits and activities after the project's lifetime.	<ul style="list-style-type: none"> ● In-depth literature review ● Key Informant Interviews ● Focus Group Discussions
Recommendations, Best Practices, and lessons learned	The evaluation documented the challenges that were faced during project implementation, lessons learned, what worked and what didn't, emerging issues, recommendations, and best practices for replicating the project on a larger scale and improving GOAL's programming in general.	<ul style="list-style-type: none"> ● In-depth literature review ● Key informant interviews ● Focus group discussions

2.1 Study Design

The Midterm/endline evaluation employed a cross-section study design using both qualitative and quantitative methods of data collection *i.e. In-Depth-Literature Review, Key Informant Interviews, Focus Group Discussions, and Individual interviews* to gather both qualitative and quantitative data. Qualitative data were collected independently from the interactions with key informants. Key informant interviews and focus group discussions facilitated an in-depth understanding and illustration of crucial project issues at hand.

For quantitative data, the evaluation team solely relied on the analysis of DHIS2 data, project reports, and individual interviews. This, therefore, involved the in-depth review of all relevant project reports and any other existing project documents *i.e. the baseline survey report, annual reports, Project logical frame/M&E Framework, Project Activity Plan, and other MEAL documents among others.*

2.2 Study Area

The Midterm/endline evaluation was carried out in three localities of North Darfur; Kutum, Umbaru, and Serf Umra.

2.3 Targeted Respondents:

The respondents of the Midterm/endline evaluation included;

GOAL Partners- National Health Insurance Fund (NHIF) director, National Medical Supplies Fund (NMSF) director, State Ministry of Health (SMoH) staff, World Health Organisation, project officer at Italy, Agency for Cooperation and Development (AICS), Locality Health Department (LHD) staff.

National Non-Governmental Organisations (NNGOs); Program officer at Sudanese Hilef for Peace and Development Organisation (SHPDO) and Follow-up and evaluation officer at Friends and Peace Organisation.

At the community level- for the household survey, the evaluation targeted household heads including men and women. In Focus Group Discussions (FGDs), respondents included; Village Savings and Loans Associations (VSLA) members, Nutrition Impact and Positive Practices (NIPP) Circle members, members of Care Groups (CGs), Community Health Committees (CHCs), children in School Health Clubs.

At the organisation level- the Country Director and the Program director at GOAL country office, the Project Coordinator, the Social Accountability Coordinator, the Health Systems Strengthening Coordinator, the project monitoring and evaluation officer at GOAL El Fasher Area Office

2.4 Sampling Method and sample size determination.

Both Random and Non-random methods of sampling were used in determining the sample of respondents to participate in the study. Non-random methods *i.e., purposive sampling*, were used in the identification of key informants, Focus Group Discussion participants, and IDP settings and villages within the catchment of ten targeted health facilities.

2.4.1 Sample size selection for participants of the survey questionnaire:

For comparability, we employed the sampling procedure and sample size used at baseline. The sample size was 807 households represented by a designated household head.

The sampling procedure for this evaluation mimicked the sampling procedure of the baseline study so as to easily compare findings between the baseline and the Midterm/end-line evaluation. It is described below;

Multistage sampling was used to select the households from which individual interviews were conducted. The first stage included proportionate-to-size stratified sampling using the Population served by the facilities to divide the sample size into 10 proportionate samples.

The second stage involved the selection of villages, towns, and IDP camps. A total of 12 villages, 4 towns, and 3 IDP camps were selected using simple random sampling. The 12 villages were selected using simple random sampling from the list of villages under each health facility. Three IDP camps were selected purposively, one each from Umbaru and Serf Umra localities and the biggest IDP camp, Fata Borno in Kutum, as shown in the table below.

Table 2: Sampling strategy and sample size

Name of health facility	#Villages served	# Towns served	# Camps served	# Villages sampled	# Towns sampled	# Camps sampled	Population served by the facility	Allocated sample size
Garbia	6	1*	1	1	1**	0	30,000	110
Kutum	9	1*	1	1	1**	0	35,000	128
Fata Borno	3	0	1	1	0	1	25,000	92
Amarjadit	30	0	0	1	0	0	16,000	59
Umbaru	41	1	0	2	1	0	27,000	99
Mosbat	43	1	1	2	1	1	20,000	73
Orshi	6	0	0	1	0	0	13,000	48
Kala	24	0	0	1	0	0	12,000	44
Birkasira	24	0	1	1	0	1	30,000	110
Hambol	20	0	0	1	0	0	12,000	44
TOTAL	206	3	5	12	4	3	220,000	807

*Same town (Kutum) is served by two health facilities, Garbia and Kutum

** Two distinct areas of Kutum town are served by the two clinics, thus the town was treated as two during sample allocation

For the qualitative arm of the evaluation, purposive sampling was employed to identify the participants of focus group discussions and key informant interviews. A total of 17 focus group discussions and 29 key informant interviews were conducted.

2.5 Data Collection

Primary data was collected using both quantitative and qualitative techniques, while secondary data was reviewed from existing project reports and databases. The data collection techniques included:

Review of relevant related Literature/ Documents: As part of the evaluation process, the evaluation team conducted an in-depth review of all the relevant documents obtained to generate more data that was triangulated with findings from the other evaluation data sources. The project proposal, Logic model, M&E Plan, DHIS2 data, Routine monitoring reports, Baseline report, Sustainability study, FMOH Strategy Plan, National Health Plans (I, II, III) and Project work plan.

Key informant interviews (KIIs): KIIs were conducted with purposively selected key informants at various levels who had relevant knowledge of the project. The list of KIs is attached in the appendix.

Individual Interviews: We used hardcopy questionnaires and administered them to project beneficiaries from purposively selected IDP settings and villages within the catchment of the ten targeted health facilities. The aim was to collect quantitative information on the project impact and outcome indicators. The questionnaires incorporated demographic and socioeconomic factors of age, gender, and education level, among others.

Focus Group Discussions (FGDs): FGDs were conducted with the specific relevant project stakeholder groups. The FGDs varied in size and were facilitated by a moderator and a note taker and conducted in local languages to ensure the active participation of all respondents. Stakeholder groups that participated in the FGDs included; CHCs, VSLAs, Care Groups, NIPP circles and School Health Clubs. Information collected from the Focus group discussions was analyzed and triangulated with the data from other sources which enabled us to draw conclusions.

Observation and Photography: We used observation guidelines to confirm the presence and utilization of project outputs, including but not limited to; infrastructure, resources, and equipment support to the health facilities. Observations were supplemented by photography to provide sample visual images of appropriate project outputs.

2.6 Data Analysis

2.6.1 Quantitative Data

Coding: Field coding was minimized. This implied that most questions were closed after the pilot and practical field exercise with the Research Assistants. In the field, if a response fell under the others (specify) category, the interviewer entered the verbatim in English even if the response was in the vernacular. Vernacular verbatim was only encouraged where the language was an issue and no English word captured the response accurately, it was entered in verbatim and translated later. Where we had open-ended questions, the M&E team would read through the verbatim and draft a code list. Coding was continuously done as the fieldwork was ongoing to reduce workload at the end of the study.

Data Capture and Cleaning

Data from the household survey was captured using hardcopy questionnaires. After all the data collection was done in all three localities, the filled questionnaires were uploaded to an online data base using KoBoCollect. The uploaded data was reviewed by the M&E team daily. Data queries were generated and addressed. Consistency and logic checks were inbuilt into the script to ensure quality data. The output was delivered as a clean-coded and labelled Excel file. Data from the qualitative

interviews were transcribed in Microsoft word by the research assistants and shared with the evaluation team via email

Data Analysis

STATA college station version 14 was used to analyze the data and produce frequency tables (univariate analysis). Data from the individual interviews were summarized using frequencies and percentages for categorical variables. Mean and standard deviation or median and interquartile range were used for continuous variables such as age. Data were disaggregated according to the locality, type of settlement, disability, sex, and age where appropriate.

2.6.2 Qualitative Data

Thematic analysis was used to analyze all qualitative data. Coding was done using NVivo software. Tape-recorded data was transcribed to form texts for each discussion. A review of all transcripts to delineate aspects directly relevant to the study objectives was done. An Analysis Grid was prepared for all the interviews/discussions conducted using the key quotations, insights, and explanations delineated from the transcripts. Data was triangulated taking into consideration all the methods of data collection that were used.

Ethical Considerations.

Administrative approval was obtained from the Humanitarian Action Commission (HAC). The evaluation followed internationally accepted ethical standards during data collection. Informed consent was obtained before the interviews.

Limitations.

The evaluation used hardcopy data collection forms instead of the originally planned digital data collection tools due to poor network in the data collection areas. This affected the quality control measures that had been embedded into the digital form. As a result, some data entry forms had missing data and some inaccurate records. These were left out of the analysis.

3.0 RESULTS

Characteristics of study participants

A total of 807 households were surveyed however 795 were considered for analysis due to non-response (extensive missing data). The non-response rate was 1.5%. The Mean age of the respondents was 37 years (Standard deviation=15 years). Majority of the respondents were female (79.9%), married (83.6%) with no formal education (38.6%) (Table 1). The average household size was 7 and 81.4% of the households were male-headed. Majority of the respondents lived in the village (60%) and were internally displaced persons (IDPs). The median monthly income was 35,000 SDG

Table 3: Respondent's Characteristics

Respondents Characteristics	Frequency	Percent
Respondent Gender (n=795) *		
Male	160	20.1
Female	635	79.9
Marital Status (n=794) *		
Single never married	54	6.8
Married	664	83.6
Widowed	61	7.7
Divorced/separated	15	1.9
Highest level of education attained (n=773) *		
No formal education	298	38.6
Started but did not complete primary	145	18.8
Completed primary	97	12.5
Started but did not complete secondary	88	11.4
Completed secondary	83	10.7
Attended college university	25	3.2
Completed college university	37	4.8
Type of household (n=746) *		
Male-headed	607	81.4
Female-headed	132	17.7
Child-headed	7	0.9
Type of residence (n=767) *		
Town	259	33.8
Village	460	60
Camp	48	6.3
Type of Settlement (n=753) *		
Host community	255	33.9
IDP	372	49.4
Returnee	126	16.7

*Variables had different rates of nonresponse

RELEVANCE

We assessed the extent to which the HealthPro projects' objectives and design responded to the beneficiaries, country, and partner/institution needs, policies, and priorities. We further evaluated the extent to which the project is still relevant and appropriate for the context where it is implemented and the extent to which the basic principles of human rights, gender equality, inclusion, and respect for cultural background were incorporated into the project's design and implementation.

Relevance of the Humanitarian-Development Nexus Approach.

The HealthPro project was implemented through a humanitarian-development-peace nexus approach, integrating efforts to address both humanitarian and development needs within a comprehensive system-strengthening framework. GOAL, as the coordinating entity, played a vital role in facilitating and building the capacity of state actors namely; SMOH, NHIF, and NMSF to enhance service delivery⁵. This approach proved relevant in ensuring the sustainability of project outcomes by empowering stakeholders to effectively deliver services using locally identified resources.

At the community level, the approach focused on bolstering community resilience by expanding NHIF coverage, thereby significantly reducing out-of-pocket expenses. Furthermore, community-level interventions, such as VSLAs, NIPP circles, and Care groups, fostered self-reliance among members, as they were encouraged to utilize their resources. This approach empowered communities and contributed to the long-term sustainability of the initiatives.

The relevance of this approach becomes evident as it effectively addressed both immediate and long-term needs. By simultaneously tackling short-term challenges and implementing sustainable solutions, it played a crucial role in reducing vulnerability among the population and enabling national partners to deliver services in a resilient and sustainable manner.

However, given the current context in Sudan characterized by a new wave of conflict and displacement, the humanitarian approach takes precedence. While the humanitarian-development peace nexus remains important, addressing immediate humanitarian needs and protecting vulnerable populations must be the primary focus. As stability and security are reestablished, the mix of interventions in the humanitarian-development-peace nexus approach can reflect this transition to lay the groundwork for sustainable development and resilience-building.

To what extent are the intervention objectives and design responsive to beneficiaries, country, and partner/institution needs, policies, and priorities?

GOAL capitalized on coordination efforts⁶ among NHIF, SMOH, NMSF, and other stakeholders to identify and address the challenges they raised during the collaborative meeting. For instance, low awareness of NHIF services hindered NHIF's goal of enrolling all Sudanese individuals, while NMSF faced limitations in vehicle availability and medicine delivery to remote areas⁷. Less than half of the SMOH facilities were not functional due to budgetary constraints⁸. To address these issues, GOAL coordinated with NHIF to procure services from SMOH facilities, which received medicines from

⁵ KII with SMOH staff (Head of Planning)

⁶ KII with WHO representative

⁷ KII with NMSF Manager

⁸ GOAL (2021). Humanitarian Development Peace Nexus: Strengthening a Decentralized Health System for Protracted Displaced Population (HealthPro) in Kutum, Umbaro, and Serf Umra - North Darfur State Baseline Study.

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NMSF. GOAL facilitated awareness campaigns and the construction of two drug stores in Kutum and Kebkabiya. This approach was relevant as the health system heavily relied on private funding, burdening families with out-of-pocket expenses exceeding insurance premiums. As a result of the awareness campaigns, NHIF services awareness increased from 18.9% to 61.2%, and enrollment rose from 46% to 74.30% in all localities by the time of this evaluation.

The HealthPro was not only responsive to the needs of the NHIF, NMSF and SMOH but also addressed the needs of the target population. A sustainability survey conducted in Kutum, one of the project implementation areas, revealed that 65% of the rural host community faced moderate to very high vulnerability, with a majority of the population lacking the means to afford healthcare expenses during emergencies⁹. To mitigate this vulnerability, the project facilitated vulnerable community members to organize themselves into VSLAs, enabling them to save money and engage in small businesses. This approach also ensured that they developed the long-term capacity to cover insurance premiums and other healthcare costs. To date, GOAL has successfully facilitated the formation of 303 VSLAs, many of which have achieved remarkable results in reducing financial vulnerability. Numerous members have shared inspiring stories of how they were able to seek medical treatment for their family members using loans obtained from the VSLAs while others have recounted their success in acquiring capital for their businesses through VSLA loans with low interest rates.

The most important and urgent need that the HealthPro responded to however was access to functional facilities as this hindered the country's progress toward universal health coverage. Due to the protracted conflicts, the health system in Sudan had deteriorated over the years with North Darfur having less than 50% operational healthcare centres. In Serf Umra, one of the project areas, only 17% of facilities were functioning¹⁰. As a result, up to 22% of the population in North Darfur did not have geographical access to health care defined as living within 5 Km from the nearest functioning health facility¹¹. The rehabilitation and equipping of the 10 PHCs in the 3 localities has had an impact on accessibility, especially in Serf Umra where the median time to a facility decreased from 120 minutes at baseline to 60 minutes at the time of this evaluation. In Umbaru and Kutum, however, the impact of this intervention on geographical access was limited.

Apart from the issue of access, community members who utilized the functional facilities expressed significant dissatisfaction with the overall quality of care they received. Consequently, households increasingly turned to private facilities instead of relying on public ones¹². The baseline survey revealed that the most commonly cited reason for delaying healthcare seeking for family members was the subpar quality of services available¹³. To address these service delivery challenges, all HealthPro interventions were meticulously designed to enhance the quality of healthcare provision, both directly and indirectly, based on the comprehensive framework of the WHO health systems building blocks (governance, human resource, medicines, information, finance and service delivery)¹⁴. Respondents noted an improvement in the quality dimensions of timeliness (reduced waiting time), availability (reactivation and introduction of new services), effectiveness (correct treatment) and efficiency (reduced cost).

⁹ GOAL (2017). Sustainability Study in Primary Healthcare Kutum and Al-Waha Localities, North Darfur.

¹⁰ GOAL (2019). Strengthening a Decentralized Health System for protracted displaced population.

¹¹ Federal Ministry of Health (2012). National Health Sector Strategic Plan II (2012-16).

¹² Ibid.

¹³ GOAL (2021). Humanitarian Development Peace Nexus: Strengthening a Decentralized Health System for Protracted Displaced Population (HealthPro) in Kutum, Umbaru, and Serf Umra - North Darfur State Baseline Study.

¹⁴ Federal Ministry of Health (2012). National Health Sector Strategic Plan II (2012-16).

What health system gaps were identified, and how were they identified?

GOAL undertook a comprehensive assessment of health systems gaps by employing various approaches. The organization engaged in bilateral meetings with key stakeholders, including the NIHF, NMSF, SMOH, and WHO, to discuss specific obstacles and gather valuable insights. Weekly sector group meetings were actively attended to understand existing challenges and funding requirements. In El Fashir, meetings and a consultative workshop with stakeholders led to the establishment of key strategies and objectives. Primary data collection, such as a sustainability study in Primary Healthcare conducted in Kutum and Al-Waha Localities, provided a deeper understanding of health system gaps. Comprehensive assessments of targeted health facilities were conducted, identifying gaps in human resources, infrastructure, and service delivery. An in-depth review of relevant documents and studies, including the National Health Policy 2017-30, HSS Reporting Rate for North Darfur, and published studies by WHO and Trithart, Albert, further informed the assessment. The identified gaps are listed in the box below.

Box 1. Health Systems gaps identified by GOAL

- Low government expenditure on healthcare (9% of total Health expenditure)
- Human resource gaps at the LHD and PHC facilities
- Lack of clarity over roles and responsibilities between entities in the health system,
- Low DHIS reporting rates (32%)
- Underutilization of data by health managers
- Weak management capacity of the LHDs in planning and monitoring at the locality level,
- Lack of vertical coordination by the Federal, State and Locality entities
- Lack of horizontal coordination by NHIF, NMSF and SMOH beyond the weekly meetings in El Fashir
- Delays in delivery of medicines and vaccines to remote areas
- Lack of Cold chain infrastructure at the locality and PHC levels
- Lack of accurate consumption analysis and forecasting capability at PHC levels
- PHC facilities not able to provide minimum PHC package

Does the project have the right type of interventions to achieve the desired outcomes?

The HealthPro was designed to respond to the changing security and political context in Sudan and promote durable solutions for displacement-affected communities, as well as long-term access to quality health services. GOAL strategies and objectives were agreed upon by all the stakeholders including the Government of Sudan and International NGOs such as WHO and the European Union. GOAL used the WHO Health Systems building blocks to analyze the situation and develop interventions. This was in alignment with the National Health Sector Strategic Plan II (2012-16) situation analysis conceptual framework. The interventions implemented by GOAL under the six Systems Building Blocks addressed key constraints as shown below;

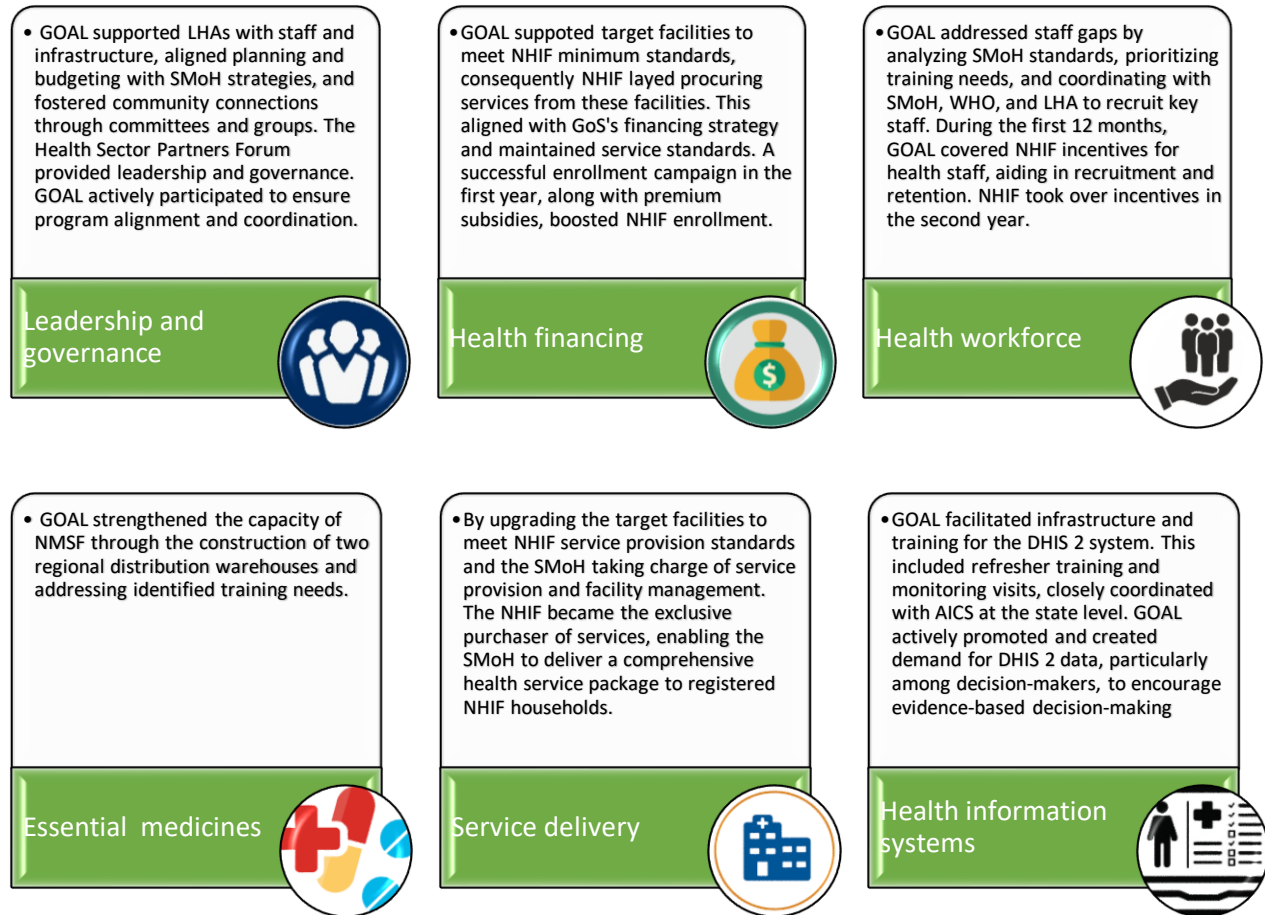


Figure 1: Interventions implemented by GOAL under the six Systems Building Blocks

Is the project still relevant and appropriate for the context where it was implemented?

At the writing of this report, the context in Sudan is volatile with civil unrest following several political events since 2019. While insecurity was a constant threat during the implementation of the project, the HealthPro project rested on an assumption that Sudan was transitioning into a post-conflict era necessitating a humanitarian-development-peace nexus approach to facilitate recovery of the health sector. However, Sudan is currently engulfed in nationwide civil unrest causing significant infrastructural damage. There is a need therefore to revisit the assumptions made regarding the government's capacity to take over several aspects of the health system in light of the ongoing conflict that is likely to affect the government's ability to meet its financial obligations.

Additionally, there has been a slow transition from communicable to non-communicable diseases (NCDs), with statistics showing worrying levels of risk factors for NCDs (Table 2). The current focus on PHC services has paid little attention to NCDs even though an NCD division was established in the PHC department of the FMOH. According to the National Health Policy 2012-2016, All PHC facilities should have the capacity to diagnose and treat common NCDs such as diabetes and

hypertension¹⁵. Most importantly though, since NCDs are chronic conditions that tend to overburden the health system, therefore adequate resources should be available for preventive services such as awareness campaigns, screening and integration of NCD prevention into community health approaches. Unfortunately, the NHIF which has been positioned to shoulder the majority of the public health expenditure, does not cover preventive services.

Table 4: Prevalence of Risk Factors In Sudan

NCD risk factor	Male (%)	Female (%)	Both sexes (%)
Raised blood pressure	24.8	22.7	23.6
Overweight or obesity	41.4	62.5	53.9
Obesity	11.7	30.7	22.9
Raised fasting blood glucose:	8.6	8.1	8.3
Raised total cholesterol:	19.6	19.9	19.8
Current daily smoking	24.7	2.9	12.0
Low levels of physical activity:	75.9	94.8	86.8

Source: NHSSP 2012-2016

COVID-19 has significantly transformed Sudan's healthcare context. The pandemic brought increased healthcare demand, resource and infrastructure challenges, and the reprioritization of services, leading to disruptions in routine care. Between 2020 and 2021, Sudan focused on strengthening health emergency response, improving coordination, and promoting health education. Digital health and telemedicine gained prominence for remote consultations, while socioeconomic impacts affected access to healthcare¹⁶. These changes were however limited to urban areas. Overall, COVID-19 exposed weaknesses in the healthcare system in terms of resilience, preparedness and response to emergencies, emphasizing the need for ongoing investment and preparedness for future health crises. Future efforts should therefore consider interventions that strengthen, disease surveillance and early warning systems, preparedness and response planning, emergency healthcare infrastructure such as isolation units and personal protective equipment, emergency response workforce, laboratory networks including reference laboratories and hub systems, critical healthcare commodities such as oxygen, and risk Communication and Public Engagement.

How appropriate were the inputs and activities as related to the local socio-cultural, political and economic context?

Sudan is a culturally diverse nation, comprising numerous ethnic and tribal groups, each with their language. Arabic serves as the official language. The majority of the population practices Islam. In terms of literacy, the overall rate for adults in Sudan stands at 69%, while for women aged 15-24 years, it is 45.2%. Primary school enrollment stands at 46%, and approximately 82.2% of students who start primary school complete their education at that level. Agriculture plays a vital role in the livelihoods of various communities, and humanitarian actors have employed Vulnerable and Marginalized Communities Savings and Loans Associations to reduce their vulnerability^{17,18}. The HealthPro Social and Behavior Change Communication (SBCC) initiatives, including the establishment of VLSAs, Care groups, School Health Clubs, and NIPP circles, were specifically designed to suit this context.

¹⁵ Ibid.

¹⁶ WHO (2022). Country Cooperation Strategy for WHO and Sudan 2022–2025.

¹⁷ GOAL (2017). Sustainability Study in Primary Healthcare Kutum and Al-Waha Localities, North Darfur.

¹⁸ Federal Ministry of Health (2016). Health Finance Policy options for Sudan 2016. P. H. Institute.

Additionally, the HealthPro project is part of the humanitarian-development-peace nexus, which coordinates efforts between humanitarian agencies and development partners to foster development in politically unstable contexts. Sudan has undergone significant political changes, including the removal of President Omar al-Bashir in April 2019 and the establishment of a transitional government. In the project's implementation area of North Darfur, the region has experienced armed conflict since 2003, resulting in substantial economic hardships, casualties, and displacement. Over 2.7 million people, including children, have been displaced¹⁹. The project has addressed the needs of internally displaced persons by providing financial support for medicine co-payments. For example, in Fata Borno, the largest IDP camp in Kutum, the project covered the 25% co-payment of the cost of medicine for IDPs enrolled in the NHIF health insurance in the first year of the project²⁰.

To what extent were Age, Gender, and Diversity mainstreamed and issues of gender equality, social inclusion, and equity considered during programming?

The project established a social accountability team consisting of a coordinator, three officers, and ten community process officers. They were responsible for implementing community-based social accountability mechanisms to ensure equitable service delivery and social inclusion. Additionally, the project actively promoted women's participation in community health issues by ensuring that at least 30% of the community health committees comprised women. In terms of the VSLA approach, efforts were made to encourage men to save in their wives' groups, aiming to avoid burdening women with the sole responsibility of family health costs. However, during the evaluation, it was observed that most VSLAs visited consisted only of women, indicating the need for further efforts to involve men. On the other hand, NIPP circles had successfully engaged both men and women in addressing the underlying, multi-sectoral causes of malnutrition, with nearly 30% of the formed circles comprising males.

The HealthPro project has a gender-sensitive Monitoring and Evaluation (M&E) plan, incorporating indicators that are disaggregated by age, gender, and disability. The project proactively identified data sources and data collection methods that were gender inclusive. As a result, the monitoring data can be effectively disaggregated by age and sex, enabling a comprehensive analysis of the project's performance.

COHERENCE

To evaluate coherence, we examined the extent to which the project was compatible with the strengthening of a decentralized health system in the country as laid down by the FMOH strategy. Additionally, we examined the extent to which the project coordinated with other interventions of relevant actors in the same context and implementation area.

To what extent does the project intervention design fit with FMOH Strategy?

HealthPro interventions have been aligned with the strategic direction for the health sector, as outlined in the National Health plans (NHPs) and Health policy declarations (See box below). The project has contributed to reducing maternal and under-5 morbidities and mortalities by increasing access to maternal and child services offered at all 10 facilities. The project has renovated and constructed and equipped the maternity and labour suites in all the 10 PHCs and has procured refrigerators and vaccine carrier boxes for all the 10 facilities. Several respondents noted the increased availability of immunization services at the facilities supported by HealthPro.

¹⁹ Federal Ministry of Health (2012). National Health Sector Strategic Plan II (2012-16).

²⁰ KII with HealthPro project staff (HSS Coordinator)

The project has contributed to decreasing the morbidities and mortalities related to communicable and non-communicable diseases by increasing access to curative services. The HealthPro project had constructed laboratories in 8 of the 10 facilities at the time of the evaluation. Additionally, the project has improved the availability of essential medicines by constructing two drug stores in Kutum and Kebkabiya and facilitated the training of pharmacy personnel in medicines supplies management. However, diagnosis and management of non-communicable diseases at the PHC facility level remains a challenge and requires additional efforts by the project in terms of facilitating training, development of management protocols and a strong referral framework.

The project has made some strides in addressing health inequities and ensuring access to essential health services for the poor through the promotion of social health insurance provided by the NHIF with monthly premiums as low as 10 SDGs per month for individuals and 60 SDGs per month for families. The project has facilitated several awareness campaigns in all the 3 localities and continues to promote the insurance scheme through different community platforms such as the community health committees (CHCs), VSLAs, care groups, School health clubs and NIPP circles.

Box 2: strategic direction for the health sector as stipulated in the National Health Plan and Strategy documents

- i. Decrease maternal and under 5 morbidities and mortalities;
- ii. Decrease the morbidities and mortalities of communicable and non-communicable diseases;
- iii. Reduce inequities in health;
- iv. The poor are to enjoy essential health package;
- v. Strengthen health governance;
- vi. Avail people-centred family health services to the population across all states and localities;
- vii. Strengthen the resilience of health and community systems to adapt, absorb and transform in response to different types of emergencies and changes

One of the major priorities of the country's health policies is to strengthen health governance; Sudan's national health system operates at federal, state, and locality levels. The federal-level handles policymaking, coordination, and support, while states share responsibilities with the Federal MoH. Locality Health Authorities (LHAs) manage service provision but face challenges like staffing gaps, unclear roles, fragmented information systems, weak management capacity, and lack of coordination among levels²¹. HealthPro equipped each LHD with computers, a laptop, and a printer. It also provided office furniture and stationery supplies based on consumption patterns. Solar power systems were installed in all three LHDs. The project addressed staffing gaps, working with SMOH to fill positions and provided incentives for staff retention. Training sessions on leadership, management, and health system resilience were conducted for LHD staff. Monthly review meetings between LHDs and SMOH were facilitated. Facility supervision was supported, and vehicles were provided for the 3 LHDs.

A recurring strategic priority in the country's NHPs and policy documents is providing people-centred family health services. This approach emphasizes delivering healthcare services that prioritize the needs and preferences of individuals and families while recognizing and respecting their unique circumstances, beliefs, and values. To establish people-centred family health services at all HealthPro

²¹ WHO (2022). Country Cooperation Strategy for WHO and Sudan 2022–2025.

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facilities, the project reactivated and established community health committees (CHCs) in all 10 PHC facilities. These CHCs have fostered a collaborative and respectful relationship between healthcare providers and the community, enabling active community participation in decision-making and customization of services to meet specific needs.

Efforts have been made by HealthPro to enhance the resilience of health and community systems to emergencies and changes. These include promoting the NHIF health insurance scheme, facilitating the formation of 303 VSLAs, rehabilitating and expanding rooms in the 10 HealthPro facilities, establishing laboratories in 8 PHC facilities, constructing regional drug stores, engaging communities through CHCs, VSLAs, school health clubs, care groups and NIPP circles, and providing training to health workers on the early warning system. However, there are still gaps in the capacity of health systems in the 3 localities, particularly in Serf Umra and Umbaru, to effectively respond to emergencies.

To what extent does the project harmonize and coordinate with relevant actors in the implementation area?

GOAL has collaborated closely with other international NGOs in the implementation of projects that integrate the humanitarian-development-peace nexus. For instance, GOAL conducted several consultative meetings with AICS to align the project design of GOAL's HealthPro with that of AICS and to coordinate actions between the two organizations. AICS was simultaneously implementing similar projects in other states within North and South Darfur²².

Furthermore, GOAL engaged in detailed design discussions with Coopi, IMC, and Concern, existing partners funded by the EC, in order to gain a comprehensive understanding of their methodologies. GOAL maintained ongoing engagement with all EU partners throughout the implementation process.

In addition, the lessons learned from the successful implementation of the HealthPro project are being applied to ensure the success of a health system strengthening project currently being piloted in two states, Nostafo and Jazeel. This project aims to recruit and employ local candidates while aligning with the policies of the Ministry of Health²³. Other agencies that are starting new programs in North Darfur have also reached out to GOAL to make sure that their programs are standardized and coordinated with GOAL. GOAL shared contacts for local partners it was working with²⁴.

EFFECTIVENESS

The evaluation assessed the extent to which the project has progressed toward achieving its objectives and outcomes. The main focus of the evaluation was comparing projects' targeted outputs and outcomes as specified in the project logical framework and activity Matrix, comparing achieved Midterm performance indicators against baseline indicators and values. Year one, two and three interim reports^{25,26,27} were reviewed along with data from the community survey and key informant interviews

²² KII with AICS Project officer

²³ KII with SMOH staff (M&E)

²⁴ KII with GOAL Sudan Country director

²⁵ GOAL (2021). Year 1 HealthPro Interim report.

²⁶ GOAL (2022). Year 2 HealthPro Interim report.

²⁷ GOAL (2023). Year 3 HealthPro Interim report.

To what extent is the project progressing toward achieving its intended outputs and outcomes, as defined by its performance indicators, and to what extent have the project targets been met?

To answer this evaluation question, data were obtained from the baseline survey report, the midterm/endline community survey, and the year I, II and III interim reports. A summary of progress against the HealthPro impact, outcome, and output indicators set in the HealthPro log frame is provided in the appendix. The evaluation team recognizes that the project has conducted additional activities since the dates of the latest interim reports. In such cases, values provided during Key informant interviews have been used instead.

Impact indicator 1: Percentage of population in target areas with access to functional health facilities, disaggregated by sex, age, and disability.

This indicator was determined as a proportion of community members living in the catchment areas of a functional health facility who have not delayed healthcare due to geographic, financial, socio-cultural, or institutional barriers.

Baseline	Midterm / Endline	Target
33.58%	59.67%	95%
<i>M=34.45%, F=32.75%</i>	<i>M= 68.67 %, F= 57.50%</i>	
<i>< 5 yrs. = 35.60%,</i>	<i><5yrs = 57.6%</i>	
<i>5-17 yrs. =30.56%,</i>	<i>5-17yrs = 58.9%</i>	
<i>18-30 yrs. = 34.50%, 3</i>	<i>18-30yr = 57.6%</i>	
<i>1-59 yrs. = 35.17%,</i>	<i>31-59yr = 59.1%</i>	
<i>60+ yrs. = 37.16%</i>	<i>60+yrs = 58.8%</i>	

The project has not yet achieved its target of 95% of the population in the target area having access to functional health facilities. At baseline, the indicator stood at 33.58% and 59.67%. at the Midterm/endline evaluation. it was We acknowledge that the inability to meet the set target might be attributed to the insufficient time between the completion of renovations, construction, and equipment installation across the 10 facilities and this evaluation. However, the notable rise in utilization of government facilities from 47.6% to 67.46% clearly demonstrates the project's effectiveness in enhancing the functionality of government facilities (Table 3).

Table 5: Types of health facilities frequently visited by the community

Type of health facility frequently visited	Baseline		Midterm/endline		Change Percent
	Count	Percent	Count	Percent	
NGO Health Facility	313	39.40%	129	16.21%	-23.19%
Govt. Health Center	274	34.50%	269	33.79%	-0.71%
Govt. Hospital	104	13.10%	268	33.67%	20.57%
Drug Store/Pharmacy	14	1.80%	5	0.63%	-1.17%
Basic Health Unit	9	1.10%	90	11.31%	10.21%
Private Health Facility	3	0.40%	19	2.39%	1.99%
Others	77	9.70%	16	2.01%	-7.69%
Total	794	100.00%	796	100.00%	

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The evaluation found a 26.09% decrease in delays in seeking healthcare services. Poor quality services were the primary reason for the delay at baseline (32.0%), whereas distance and costs associated with treatment or transportation were the most common reasons cited at the time of evaluation (48.74%) (Figure 5). These findings suggest that progress has been made in terms of availability of quality healthcare at the supported facilities, but that geographic and financial barriers to access to healthcare persist.

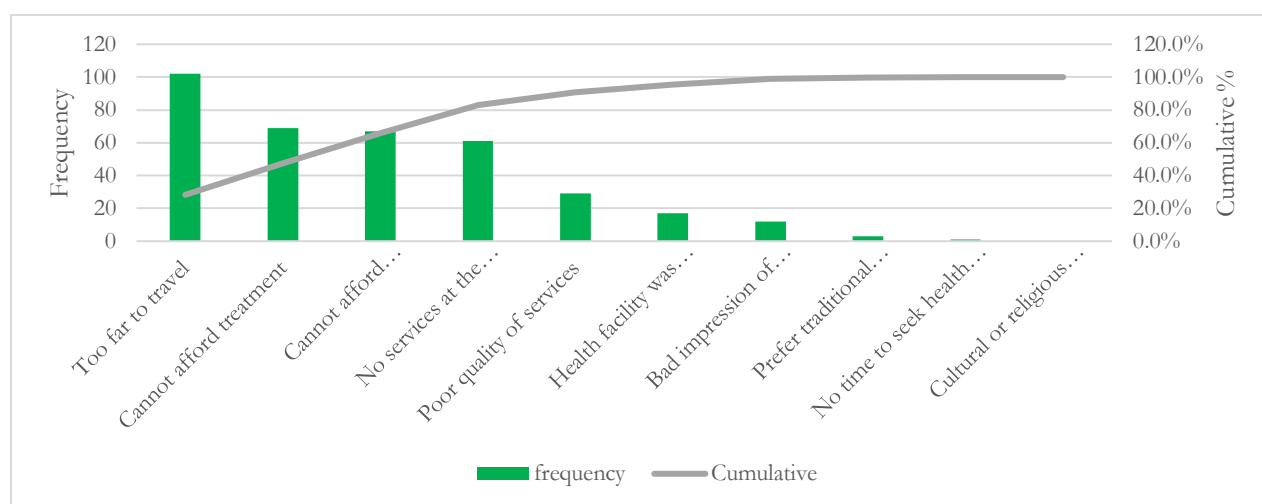


Figure 2: Pareto chart showing reasons for delay at the midterm/endline

Outcome indicator 1: Number of LHD annual action plans where 60% of recommendations/activities have been implemented.

Baseline	Midterm / Endline	Target
0%	82% Kutum, 62.8% Serf Umra, 38% Umbaru	60% for all three LHAs

At the midterm/endline evaluation, all three LHDs had both annual action plans and strategic plans in place. Kutum and Serf Umra LHDs had successfully implemented 82% and 62.8% of their annual action plans, respectively. However, Umbaru LHD had implemented only 38% of the activities due to budgetary constraints and security challenges. Additionally, Umbaru LHD did not exist before the project, which meant staff had to be recruited and delays were experienced in implementing its annual plan. Kutum and Serf Umra LHDs were already established before the project but lacked the technical capacity to develop and implement strategic plans.

Outcome indicator 2: Percentage of clinics providing NHIF services

Baseline	Midterm / Endline	Target
0%	90%	100%

At the midterm/endline evaluation, 9 out of the 10 facilities were already offering NHIF services. Construction at the Hambol facility had just been completed by GOAL, with all furniture and equipment delivered, but the NHIF assessment had not yet been conducted at the time of data collection. GOAL requested the donor to eliminate the accreditation target, citing that NHIF services

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were already being provided at some facilities, and accreditation was not deemed necessary. At the time of the evaluation, this request had been approved.

Output indicator 1.1: % of target area LHD with an operational office (facilities, equipment, staffing, and means of transport) and operational

Baseline	Midterm / Endline	Target
33.3%	100%	100%

At midterm/endline, all the 3 LHDs had adequate operational LHD office space, equipment, and furniture and had functional locality health management teams. This has enabled the LHDs to implement activities related to EPI, Reproductive health, Nutrition and DHIS support supervision.

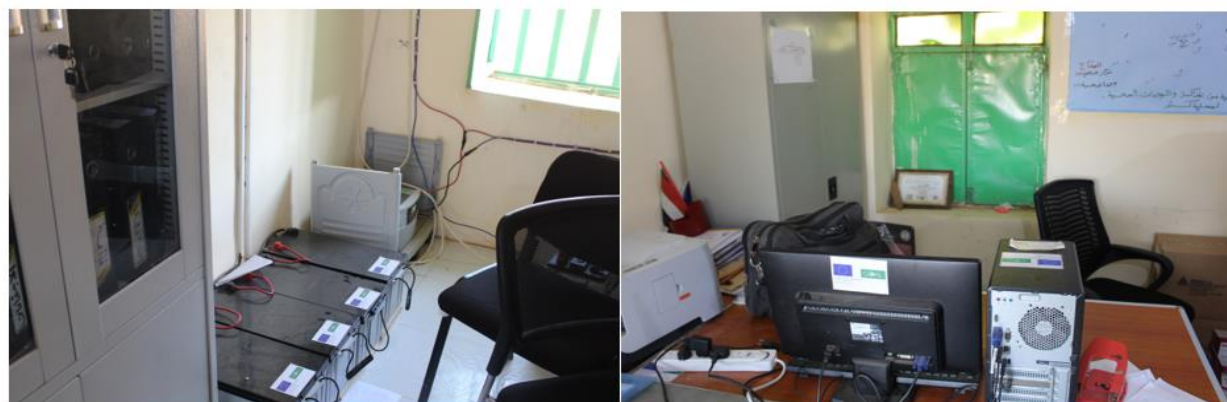


Figure 3: Kutum LHD was renovated and equipped by the HealthPro project

Output indicator 1.2: Number of community health committees formed, provided technical support by the Action, and actively participating in meetings at the LHD level

Baseline	Midterm / Endline	Target
0	10/10	10

At the time of this evaluation, all ten facilities had community health committees operational throughout the second half of 2021 to date, holding regular meetings and participating in locality coordination meetings through their representatives.

Output indicator 2.1: Number of HRH trained, trained staff disaggregated by sex

Baseline	Midterm / Endline	Target
0	241 F=139 M=102	100

At the time of evaluation, the project had surpassed its target of 100 HRH trained, a total of 241 health workers and managers had been trained (139 female and 102 male) on diverse topics such as Planning, DHIS 2/EWARN, Integrated Reporting, Medical Supplies Management, and Integrated Management of Childhood Illnesses (IMCI). This was verified during the facility visits.

Output indicator 2.2: Percentage of the population with awareness of NHIF services' availability in their area.

Baseline	Midterm / Endline	Target
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18.89%

61.19%

90%

The project has made significant progress in increasing awareness of NHIF services in the community, reaching 61.19% from an initial 18.89% through awareness creation campaigns in 2022 that reached 23,432 people (14,466 females and 8,966 males). However, the target of 90% has not been met due to the low buy-in of NHIF staff at the locality level²⁸. To address this, CHC members have been assigned the responsibility of leading awareness campaigns, and resources initially allocated for NHIF subsidies have been redirected to awareness campaigns. The project team is optimistic about surpassing the 90% awareness target. The campaigns have effectively improved community knowledge and understanding of health insurance, with accurate definitions of health insurance rising from 14.9% to 59.09%, and the proportion of respondents unaware of health insurance decreasing from 34.4% to 9.22%. Awareness of NHIF as a government insurance scheme increased from 9.8% to 62.47%, and understanding of eligibility and availability of NHIF services also improved significantly. Enrollment rates slightly increased from 70.50% at baseline to 74.30% but were hindered by policy changes that lead to a suspension of new enrollments.

Output indicator 2.3: Number of targeted health facilities with trained staff on the NMSF supply management system

Baseline	Midterm / Endline	Target
0	10	10

At the midterm/endline, at least one health worker had been trained from each of the ten targeted health facilities. In addition to the three-day standard NMSF training, NHIF provided on-the-job training to pharmacy staff in the facilities on documentation relevant to claims processing for insurance subscribers during a joint stakeholder supervision visit in December 2021. As a result, all the facilities had organized pharmacies and up-to-date stock cards.



Figure 4: A well-organized store in a facility supported by HealthPro in Umbaru

²⁸ KII with HealthPro project staff (HealthPro Coordinator)

Output indicator 2.4: % target localities reporting HMIS (DHIS-2) monthly.

Baseline	Midterm / Endline	Target
20%	90%	100%

At the time of this evaluation, 9 out of the 10 PHC facilities supported by the project, had submitted complete DHIS 2 reports every month in the six months preceding the evaluation. Fata Borno was the only facility supported by HealthPro that did not submit its reports on time²⁹. DHIS report completeness improved substantially from a baseline value of 20% to the current value of 90%.

Output indicator 3.1: Percentage of health facilities in target areas providing full package PHC services

Baseline	Midterm / Endline	Target
0	80%	100%

The project has achieved its target. At the time of the evaluation, all 10 facilities were providing a complete package of PHC services, including services such as Integrated management of childhood illnesses, EPI (childhood vaccines), Nutrition (nutrition therapy), Reproductive Health, Essential medicines, Health education, and General laboratory services. At the beginning of the project, none of the facilities provided a full package of PHC. The facility assessment done during the evaluation confirmed that 8 out of the 10 facilities were providing full PHC services. Hambol and Kala both located in Serf Umra were not providing the full package at the time of the evaluation. Kala PHC facility lacked basic laboratory services due to the unavailability of a laboratory technician willing to work in the facility while Hambol lacked some essential medicines.

Output indicator 3.2: Number of people disaggregated by sex, age, and disability, including forcibly displaced and their host communities, receiving improved access to health.

Baseline	Midterm / Endline	Target
0	97,228 M=41,188, F=56,040 < 1 yr. =20,736 1-4 yr. =15,102 5-14 yr. =15,807 15-44 yr. =26,551 45-64 yr. =11,706 65+ yr. =6,353, With disability = 684	136,815

The project has fallen short of its target for this particular indicator, achieving up to 71.1% of the intended target at the time of the evaluation. Between April 2021 and December 2022, 97,228 community members received care from the 10 facilities, including 41,188 males and 56,040 females. This is likely due to the fact that only 8 out of the 10 facilities are providing a full package of PHC while only 9 out of 10 have NHIF services.

Output indicator 3.3: Number of people disaggregated by sex, age, and disability, including forcibly displaced and their host communities, benefiting from nutrition-related treatment,

²⁹ GOAL (2022). Year 2 HealthPro Interim report.

sensitization to improved nutritional practices, and support for nutrition-sensitive agricultural practices

Baseline	Midterm / Endline	Target
0	11,736 (M=5,751 F=5,985) (2,727 were <5 years of age)	24,338

The values reported for this indicator for children under 5 who received nutrition treatment services, including outpatient therapeutic program (OTP) and targeted supplementary feeding program (TSFP) during the project period were obtained from DHIS2. As of the evaluation date, 1,920 children below the age of five (886 male and 1,034 female) had received nutrition treatment services, including OTP and TSFP. The NNGOs in Serf Umra and Umbaru conducted sensitization to improve nutritional practices and support for nutrition-sensitive agricultural practices, through NIPP circles. The information on NIPP circles is provided under output indicator 3.6. It is expected that as the project continues to sensitize the population about improved nutritional practices and promote nutrition-sensitive agricultural practices, the number of children requiring nutrition-related treatment services will decrease over time. However, it is worth noting that the initial target for this indicator may have been set too high, and may require revision based on the current progress of the project.

Output indicator 3.4: Number of target health facilities rehabilitated and equipped

Baseline	Midterm / Endline	Target
0	10	10

The project has achieved its target despite the protracted tendering process to identify contractors with interest and capacity to carry out the planned construction activities. At the time of the evaluation, all 10 facilities had undergone rehabilitation and had been equipped as shown in the figure and table below;

Table 6: Construction and rehabilitation of health facilities in Kutum and Serf Umra localities

No.	Name of health facility	# New rooms constructed	# Rooms rehabilitated	# WASH structures constructed (List)	Perimeter wall constructed (Yes/No)	Solar power installed? (yes/No)
1	Kutum	3	8	-	Yes	Yes
2	Garbia	3	6	VIP latrines	Yes	Yes
3	Fata Borno	-	14	VIP latrines	No	No
4	Amarjadit	4	-	-	No	No
5	Hambol	4	-	VIP latrines, Incinerator	Yes	No
6	Birkasira	1	7	Incinerator	Yes	No
7	Kala	4	-	VIP latrines, Incinerator	Yes	No
8	Serf Umra Rural Hospital	2	1	VIP latrines	No	No



Figure 5: Some of the equipment procured by the HealthPro Project

Output indicator 3.5: Percentage of caregivers who reported that they took their children to a health facility when they have a fever

Baseline	Midterm / Endline	Target
78.57%	84.94%	90%

The project is on track to achieve its target. Data from the community survey showed that 321 (49.84%) caregivers reported having under-5 children who had a fever in the past two weeks before the survey. Out of these, 86.62% of caregivers reported seeking advice or treatment for the fever/illness from any source. And of those who sought advice or treatment from any source 84.94% reported taking their children to a health facility with the majority seeking advice or treatment from a government health facility (Figure 6).

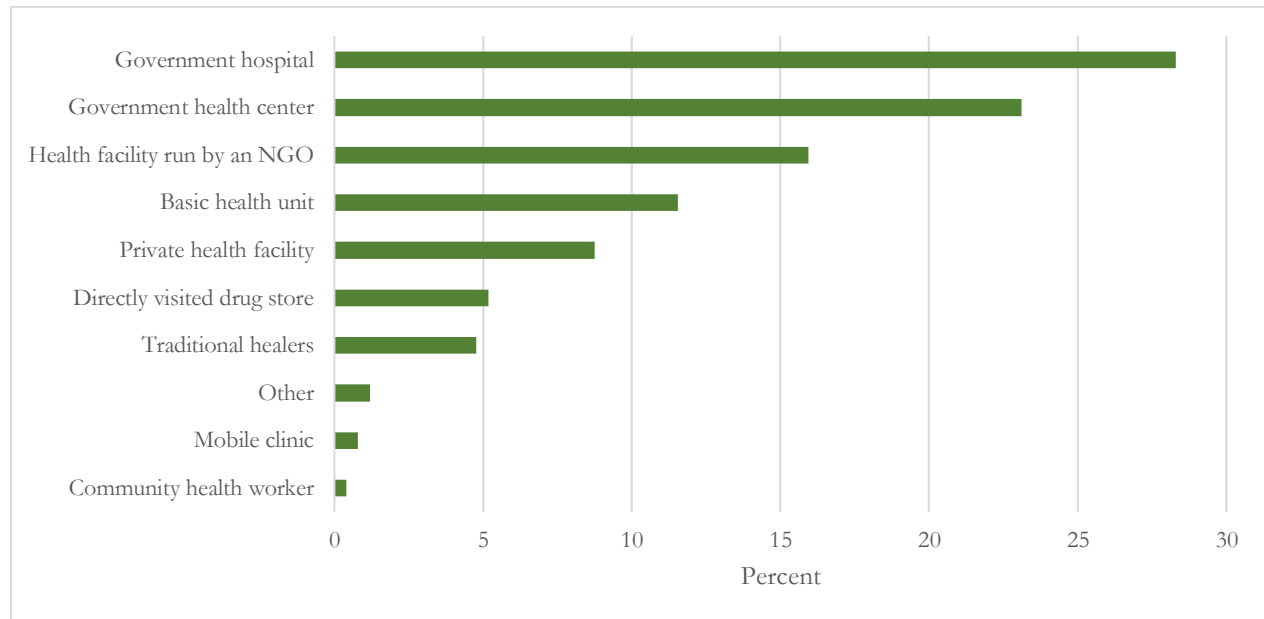


Figure 6: Showing where the caregivers of sick under-5s seek advice or treatment

At baseline, the main reasons for not seeking care for under-five children with fever were the inability to afford treatment (38%) or transportation (20%), and distance to the facility (14%). These reasons

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remained the same at the time of the evaluation, each contributing 30.3% of all reasons for not seeking care for under-five children with fever. These findings highlight that some sections of the community still lack access to healthcare due to financial and geographical constraints. Therefore, the project should develop innovative ways of addressing these barriers beyond its current interventions to ensure equitable access to healthcare services for all.

Output indicator 3.6: Number of NIPP circles (male plus female circles) established and functional to prevent malnutrition

Baseline	Midterm / Endline	Target
0	52 M= 15, F= 37	72

At the time of the evaluation, the NNGOs subcontracted by GOAL to establish NIPP circles had established 52 NIPP Circles against a target of 72. In Serf Umra, 32 NIPP circles (Male=5, Female=27) were established. In Umbaru 20 NIPP circles (Male=10, Female=10) circles were established. Considering the delayed implementation of the NIPP circle activities, the project is on course to achieve its target by the end of the project.

EFFICIENCY

We evaluated how efficiently the project resources (funds, staff, time, logistics, etc.) were utilized and converted into target results to ascertain value for money. We examined how the resources were utilized in the project implementation versus the results achieved.

Did the project make the best use of the available resources?

The HealthPro team implemented cost-saving measures by coordinating field visits that allowed sharing of vehicles³⁰ resulting in reduced transport expenses. Additionally, the project engaged the community through a participatory approach, allowing them to take ownership³¹ of interventions and avail community resources such as security, water, and food for the facilities³². Some CHCs even undertook construction and renovation projects³³, such as building an inpatient ward at Kutum PHC.

Most of the HealthPro interventions did not provide direct support to the beneficiaries but provided support through the existing infrastructure. For example, the project did not provide any financial support to VSLAs, Care groups, School Health Clubs and NIPP circles. These groups mobilized their resources and only received support through training and support supervision³⁴.

Were there more efficient ways to achieve the objectives of the project?

Multiple interventions, including PHC facility renovation, room construction, equipment procurement, and staff recruitment, were carried out simultaneously, leading to redundancies due to their sequential interdependencies. For instance, staff recruited for the different PHC services were not utilised fully until the service points were completed and equipment delivered³⁵. Additionally,

³⁰ KII with HealthPro project staff (Social Accountability Coordinator)

³¹ KII with AICS Project officer

³² Gharbia CHC FGD

³³ Kutum CHC FGD

³⁴ KII with HealthPro project staff (Social Accountability Coordinator)

³⁵ KII with HealthPro project staff (HSS Coordinator)

procured equipment couldn't be installed in facilities that were undergoing renovation or construction of additional rooms. These issues caused significant delays and inconveniences that could have been avoided through the sequential execution of activities. The use of tools like the Program Evaluation and Review Technique (PERT) diagram and Critical Path analysis could have helped estimate task completion time and determine the necessary task sequence for timely project completion. However, accurately estimating the completion time for individual tasks, such as procurement, can be challenging without addressing the root causes of procurement delays.

To what extent were the project undertakings efficient in terms of quality, cost, and timeliness?

The HealthPro project experienced significant delays in implementing planned activities, resulting in increased costs and efficiency losses. In Serf Umra, security issues led to a six-month halt in support supervision visits after an attack on GOAL staff³⁶. The project also faced a nine-month delay in procuring medical equipment due to external factors. Renovation and construction delays at primary healthcare centres arose from a lengthy tendering process and contractor misunderstandings, while changes in the power supply system's plan for the two drug stores under construction caused delays³⁷. To prevent future delays, proactive measures should be taken, including enhanced security planning, streamlined procurement processes, improved contractor management, and careful consideration of project plan changes. These steps will help mitigate risks and ensure timely and cost-effective project implementation.

What factors enhanced or limited the efficiency of the project

The HealthPro project established strong partnerships with SMoH, NMSF and NHIF. Despite infrequent joint supervision visits (2 in Kutum and Umbaro, 4 in Serf Umra), close supervision from GOAL, SMoH, NHIF, and NMSF significantly improved project efficiency. Real-time issue resolution and collaborative efforts during joint supervision ensured the project stayed on track to meet its objectives. Additionally, after the handover of facilities to the Ministry of Health, GOAL provided training to NHIF insurance officers to generate information for HealthPro³⁸, addressing data-related human resource challenges and enhancing project efficiency. These partnerships and collaborative actions were instrumental in optimizing project outcomes.

The HealthPro team's carefully determined composition, combined with effective leadership, fostered a culture of teamwork and collaboration³⁹, resulting in fewer conflicts and minimal time lost in resolving them. The team's shared vision, diverse skills, and expertise enabled seamless cooperation while the strong leadership provided clear direction, accountability, responsibility, and transparency, crucial to the project's success. Additionally, the inclusion of highly experienced individuals, the HSS coordinator and DHIS Manager, with extensive knowledge of the local health system and institutional structures,⁴⁰ further strengthened the team's efficiency and effectiveness. Their valuable insights and guidance enhanced the project's implementation and overall quality.

The HealthPro project team adhered to GOAL policies and guidelines for all procurements. This minimized loss due to poor quality procurements ensuring that items were received as planned but

³⁶ KII with HealthPro project staff (HSS Coordinator)

³⁷ KII with HealthPro project staff (HealthPro Coordinator)

³⁸ KII with HealthPro project staff (DHIS Manager)

³⁹ KII with HealthPro project staff (HSS Coordinator)

⁴⁰ KII with HealthPro project staff (HealthPro Coordinator)

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introduced bureaucracies that caused significant delays. Additionally, the HealthPro project faced the challenge of inflation⁴¹, which had a significant impact on procurement costs, particularly for equipment, furniture, and construction materials. Trainings, health worker incentives and SBCC interventions were the most affected by inflation. Even though the project team decided to conduct all procurements in US dollars instead of Sudanese currency, this decision only affected procurements made directly by GOAL.

The HealthPro project facilitated the development of guidelines for CHC establishment and operation. This unplanned activity involved a stakeholder workshop and engaging a consultant to create guidelines specifying CHCs' responsibilities, interactions with health facilities, and support and monitoring requirements. Despite being an unplanned step, it played a pivotal role in promoting effective community participation, enhancing CHCs' functionality, and resolving conflicts between CHCs and health facilities.

The absence of a Local Health Department in Umbaru at the start of the HealthPro project was a significant challenge. GOAL had to collaborate with stakeholders outside the locality administration to find a construction site for the LHD. This delayed the activities related to the Umbaru LHD. Limited technical capabilities of the LHD staff, due to low salaries hindering qualified personnel recruitment, prompted GOAL to provide incentives. However, sustaining these incentives at the three LHDs has become a challenge due to the SMOH's limited budget^{42 43}

The HealthPro project in Darfur faced challenges transitioning from a humanitarian program to a development program. The mindset of health managers and beneficiaries initially hindered the implementation of development activities, particularly in nutrition and prevention services. Development partners were hesitant to take up these services due to their reliance on humanitarian aid. However, HealthPro engaged in advocacy and awareness-raising to promote the transition, gaining support from health managers and beneficiaries. In facilities previously supported by GOAL's humanitarian program, community resistance required extensive sensitization efforts involving key stakeholders to successfully transition to the development program. Additionally, finding qualified health workers willing to work in Umbaru, especially for the hospital, was a year-long challenge. Budget constraints at the SMOH limited their ability to absorb the majority of the volunteer health workers some of whom were crucial to service delivery. An MOU with NHIF to continue incentive payments, partially addressed this challenge however inflation affected the effectiveness of these incentives, impacting motivation and performance.

GOAL faced challenges introducing the HealthPro model of service delivery due to fragmented existing service delivery models in the 3 localities. In Kutum, GOAL provided drugs as NMSF had no involvement, while NHIF operated their own clinics. In Umbaru, NHIF provided services in their own clinics, while NMSF and MOH had separate pharmacies and staff in the same facilities. Through collaboration, the HealthPro project introduced laboratory services and aligned with NHIF requirements to allow NHIF to close its clinics and purchase services from SMOH supported facilities with NMSF supplying drugs. In Serf Umra SMOH had an existing partnership with NMSF, making the transition to the new model easier. Budget modifications for solar power installation caused delays in handing over two newly constructed drug stores to NMSF. Additionally, there were paperwork

⁴¹ KII with HealthPro project staff (HSS Coordinator)

⁴² KII with HealthPro project staff (HealthPro Coordinator)

⁴³ KII with SMOH staff (Director General)

delays and concerns from NHIF and NMSF about GOAL's subsidies on drugs, fearing potential misuse of healthcare services due to the almost free services. GOAL successfully convinced the partners, and subsidies were provided.

Since 4 out of the 10 facilities were supported by GOAL's humanitarian program and provided free services for nearly 20 years including one facility in the IDP camp in Fata Borno, it was initially very challenging to convince the community to move to a development system where they were required to make some payment. Several community sensitization activities had to be done involving the minister of health, the director of NHIF, and NMSF⁴⁴. The process took a lot more time and engagement than was initially anticipated. Moreover, the HealthPro project team initially thought accreditation was a requirement for NHIF to operate in the target facilities which was not the case. Acquiring this accreditation for all the facilities proved very costly and this delayed the introduction of NHIF services to the facilities. GOAL later learned that as long as the basic infrastructure and staffing requirements were there, NHIF was willing to provide services. GOAL eventually worked with NHIF and managed to have NHIF services in 9 of the 10 facilities. This however affected the project timelines.

Due to budget constraints, the project's DHIS intervention supported only 10 facilities in 3 LHDs, limiting the impact on state-level planning due to low reporting and completion rates in other facilities⁴⁵. Additionally, the installation of internet routers at the LHDs has been ineffective due to poor network quality across the three available providers. There are discrepancies between nutrition indicators in DHIS and hard copy HMIS forms, resulting in separate reporting directly to the Ministry of Health. Shortages of DHIS forms and HMIS registers have affected data quality, occasionally requiring data collection using Excel instead. The project faced challenges in obtaining permission to print HMIS books from the Ministry of Health

The COVID-19 pandemic significantly impacted the project, causing delays and hindering activity implementation⁴⁶. The overwhelmed healthcare system faced a reduction in essential service delivery, while disrupted supply chains resulted in shortages of crucial medical supplies. Government-imposed travel restrictions and lockdowns further complicated matters. The project also encountered challenges with forecasting and delayed delivery, leading to shortages of medical supplies. The Autumn season, characterized by difficult travel routes and low attendance during the harvest, affected project implementation. Delays in incentive payments, water shortages in some facilities, poor communication networks, and staff shortages exacerbated the difficulties faced by the project.

IMPACT

We examined and established the early impact of the project. The focus was put on examining the effects the intervention had on the lives of beneficiaries and in strengthening the health system. Both direct and indirect beneficiaries whether positive or negative, intended or unintended immediate or long-term were identified and documented.

What are the early impacts of the project on the lives of the beneficiaries?

⁴⁴ KII with HealthPro project staff (HealthPro Coordinator)

⁴⁵ KII with HealthPro project staff (DHIS Manager)

⁴⁶ KII with SMOH staff (M&E)

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Assessing the contribution of the HealthPro project to universal health coverage in North Darfur State involves evaluating the percentage of the population in target areas with access to functional health facilities. At the time of the evaluation, 59.67% of the respondents had access to functional facilities. However, measuring the project's impact on beneficiaries' lives requires a more comprehensive analysis, considering population health indicators and employing complex sampling methods. Typically, this data is captured through nationwide surveys such as censuses and demographic health surveys.

Nonetheless, it is reasonable to expect that the increased access to functional health facilities, rising from 33.58% at baseline to 59.67% at the Midterm/endline evaluation, will likely have a positive impact on the health indicators of the target communities. In addition, several testimonies from beneficiaries shed light on the benefits the community has derived from the project. Members of care groups and Community Health Committees (CHCs) noted an improvement in awareness of common illnesses⁴⁷, while other CHC members observed a reduction in community reliance on local medicine⁴⁸. Community members acknowledged an enhancement in the quality of services provided at the facilities supported by the project⁴⁹.

Furthermore, members of Village Savings and Loan Associations (VSLAs) reported that their vulnerability to health and business emergencies had decreased due to their ability to save money and access loans through the VSLAs. It was also highlighted that the different community groups had strengthened community ties, as they brought together individuals from diverse backgrounds and tribes who interacted socially during group activities⁵⁰.

Overall, while assessing the HealthPro project's impact on beneficiaries' lives necessitates more comprehensive indicators and complex sampling methods, the increased access to functional health facilities and the positive feedback from various community members indicate the project's potential benefits to the target communities.

Did the intervention have any unintended and/or negative consequences?

The HealthPro project has shown a significant improvement in access to health facilities in Serf Umra, with the median travel time decreasing from 120 minutes to 60 minutes. However, in Kutum and Umbaru, there has been a negative trend, with an increase in the median travel time by 15 and 30 minutes, respectively, indicating a decline in access in these areas (Table 5). It is important to note that Serf Umra initially faced the greatest challenge with limited access to functional facilities, with only 17% coverage before the project. Therefore, the impact of the HealthPro project on geographical access was most pronounced in Serf Umra.

Table 7: Median time to a facility by Locality

	Baseline	Midterm/endline	Change
Locality	Median time in minutes		
Kutum	15	30	15
Serf umra	120	60	-60

⁴⁷ FGD Care Group Birk Sira

⁴⁸ FGD CHC Birk Sira

⁴⁹ FGD VLSA Mosbat

⁵⁰ FGD CHC Kala

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Umbaru	30	60	30
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The observed increase in travel time in Umbaru can be attributed to the high enrolment of households on NHIF insurance schemes (Table 6). As more households joined the scheme, the number of facilities approved by NHIF to provide services to their clients remained the same, leading to longer travel distances. This was evidenced by the fact that in Umbaru, households with at least one family member enrolled in NHIF experienced a median travel time of 90 minutes compared to 18 minutes for households without NHIF enrolment.

In Kutum, where NHIF enrolment is equally high and more facilities provide curative services compared to Serf Umra and Umbaru, the difference in travel time was minimal, with enrolled households experiencing a median travel time of 30 minutes compared to 36 minutes for non-enrolled households. These findings highlight the need to expand the HealthPro project beyond the current 10 facilities to match the increasing NHIF enrolment. Scaling up the project will be crucial in increasing geographical access to improved health services.

Table 8: Median time to a facility by Locality and NHIF Insurance Scheme enrolment

At least one Family member enrolled on the NHIF scheme	Yes	Yes	No
	%	Median time in minutes	
Kutum	81.66	30	36
Serf umra	45.54	60	60
Umbaru	86.51	90	18

SUSTAINABILITY

HealthPro is part of the EU humanitarian-development-peace Nexus approach in Sudan whose goal is to transition the Sudan health system from a humanitarian aid-reliant system to a self-sustaining health system. Due to longstanding conflict in North Darfur, International NGOs have been playing a substantial role in service delivery through their humanitarian programs. This has led to the underutilization and deterioration of the SMOH-run facilities with limited and uncoordinated participation of the LHAs, NHIF and NMSF.

The project has built the capacity of these state actors through interventions that strengthen the different building blocks of the decentralized health system without providing direct support so that they can own the interventions. GOAL secured formal commitments and bilateral agreements with NHIF, NMSF and SMOH regarding the responsibilities of each actor within the HealthPro model. NHIF agreed to close its clinics and procure services from SMOH facilities. SMOH agreed to upgrade its facilities to meet NHIF's minimum acceptable standards. NMSF agreed to provide medicines to SMOH whose cost would be met by cost-sharing of NHIF and its subscribers.

Financial sustainability: The health financing interventions of HealthPro have positioned the healthcare system in the 3 localities to be completely financially reliant on the SMOH, NHIF, and NMSF. Currently, the government lacks the capacity to fully support the healthcare system however, a sustainability survey found that the NHIF which is a for-profit government parastatal has the capacity to take over a significant portion of the public healthcare expenditure. The survey noted that out-of-pocket costs in fact exceeded the insurance scheme's monthly premiums. The average monthly

health expenditure of the IDPs, rural host communities and urban host communities was 702 SDGs, 1332 SDGs, and 915 SDGs respectively, with individuals spending 26-59 SDGs per consultation⁵¹ (NHSSPII). On the other hand, NHIF offered insurance at premiums of 10 SDGs for individuals and 60 SDGs for families. The HealthPro, therefore, fronted the NHIF as the primary healthcare financing mechanism in line with the NHIF's ambitious goal of achieving 100% coverage for all Sudanese. Several issues however continue to threaten the financial sustainability of HealthPro, key among them being the SMOH's limited budget which limits its ability to uphold its financial commitments.

Political sustainability: The commitment of the government, particularly the Federal and state ministries of health, remains vital for the political sustainability of HealthPro, including continuous support, resource allocation, and integration of initiatives into national health policies and plans. However, this commitment has been overshadowed by the volatile political context characterized by nationwide civil unrest and conflicts within the transitional government, impacting the government's ability to uphold its commitments. Nevertheless, GOAL's extensive consultations with key political leaders and policymakers, such as the FMOH, the Director-General of the SMOH, the Head of NHIF for North Darfur, the Head of NMSF for North Darfur, the Commissioner for Kutum Locality Administration, the Team Leader from WHO's sub-office, and WHO's Senior HSS Advisor based in Khartoum⁵², have also contributed to political sustainability. Furthermore, the HealthPro objectives and strategies align with the government's broader health agenda, increasing the likelihood of ongoing political support and funding.

Social sustainability: HealthPro interventions such as LHD and PHC facility staff recruitment, PHC facility rehabilitation, and equipment provision have improved long-term access to affordable and quality healthcare to the target communities particularly vulnerable populations like women, children, IDPs, rural host communities and people with disabilities. However, 40.33% of the target communities still have limited access to affordable and quality healthcare due to geographical distance and cost among others. Additionally, 26.06% of the population is still not covered by the NHIF health insurance scheme, putting them at risk of significant health expenses during emergencies. Engaging the community through CHCs, VSLAs, NIPP circles, Care groups, and School health clubs has been a part of the project's social sustainability approach, facilitated through partnerships with NNGOs. However, the sustainability of these community interventions remains uncertain due to the NNGOs' limited capacity in fundraising, management, and technical expertise. The project also faces challenges in sustaining health promotion and prevention services at the PHC level, as the NHIF primarily focuses on curative services with minimal investment in prevention⁵³. Enhancing social sustainability requires addressing gaps in geographical access, cost barriers, NHIF coverage, and strengthening the capacity of partnering NNGOs while advocating for increased investment in preventive healthcare services.

Environmental sustainability: HealthPro has made environmental sustainability a priority in its efforts by implementing various measures. Firstly, durable and sustainable materials have been used in the construction and renovation of PHCs to minimize maintenance needs and ensure long-term functionality beyond the project's lifespan. Additionally, the project has invested in high-quality equipment and furniture for the healthcare facilities, ensuring their longevity even after the project

⁵¹ Federal Ministry of Health (2012). National Health Sector Strategic Plan II (2012-16).

⁵² GOAL (2019). Strengthening a Decentralized Health System for protracted displaced population.

⁵³ KII with HealthPro project staff (HealthPro Coordinator)

concludes. The project is dedicated to utilizing renewable energy sources, exemplified by the installation of solar systems in Kutum and Gharbia PHCs, as well as in all three LHDs and the newly constructed NMSF drug stores in Kutum and Kabkabiya⁵⁴. Proper waste management practices have also been prioritized, with the construction of pit latrines in five facilities and incinerators in three facilities. However, despite these efforts, challenges to environmental sustainability persist. Water shortages have been reported in many facilities, posing a threat to the project's environmental sustainability. Additionally, the occurrence of rainy seasons and occasional flooding has caused disruptions in NMSF medicine delivery due to impassable roads. To mitigate this issue, the project has constructed two NMSF drug stores in Kutum and Kabkabiya.

Cultural sustainability: Sudan remains a highly patriarchal society where men predominantly hold power and make decisions, while women face limited access to resources, opportunities, and decision-making roles. To ensure the sustainability of SBCC interventions, the project has actively engaged men in these initiatives. For example, the project encouraged men to join their wives' VSLA groups and ensured that nearly 30% of the NIPP circles included male participants. Moreover, the project utilized community interventions to raise awareness about harmful practices like Female Genital Mutilation and excessive reliance on traditional medicine⁵⁵. Cultural preservation was also prioritized in service delivery by recruiting local staff members who possessed a deep understanding of the cultural context. However, a significant challenge to cultural sustainability in the HealthPro project arose from the oversight of not accounting for the cultural festivals and celebrations that take place during Sudan's Autumn season. These festivities centred around harvest traditions, made it challenging to implement activities requiring community participation.

Human resource sustainability: One of the primary obstacles faced by the health system in North Darfur is the shortage of human resources. Recognizing this issue, GOAL conducted an assessment to identify the gaps and collaborated with the SMoH to recruit and deploy personnel to address these gaps. To improve staff retention and motivation, GOAL fully covered all incentives for PHC facility staff and eventually transitioned them to the NHIF, aligning the incentives with government rates to ensure sustainability. Furthermore, the HealthPro project facilitated the training of trainers (TOTs) through the Continuous Professional Development department of the SMoH. This measure aimed to ensure the ongoing training of healthcare workers even after the project's support ceased. However, the sustainability of human resources remains a challenge as the majority of health workers in all 10 PHCs are volunteers, and the high inflation rate has affected the effectiveness of incentives in retaining and motivating staff.

LESSONS LEARNT

This HealthPro model demonstrated significant potential for successful implementation in challenging contexts like North Darfur, as evidenced by substantial project achievements. By supporting Local Health Departments (LHDs) and involving the National Health Insurance Fund (NHIF) and National Medical Supply Fund (NMSF) in sustainable purchasing and medical supply roles, the HealthPro model has shown that it is possible to achieve universal health coverage without direct donor support. The project's success hinged on effective stakeholder engagement and collaboration. Through regular consultations, joint decision-making, and shared responsibility, the project fostered strong partnerships with key stakeholders including NHIF, SMoH NMSF, LHAs and the local community.

⁵⁴ GOAL (2022). Year 2 HealthPro Interim report.

⁵⁵ FGD CHC Birk Sira

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However, some challenges such as the difficulties in accessing beneficiaries during the autumn season, and the limited buy-in of NHIF staff at the localities during awareness campaigns highlighted the need for more effective stakeholder engagement during project design.

The HealthPro model demonstrated adaptability and flexibility in response to changing circumstances. Despite challenges posed by the COVID-19 pandemic, insecurity, bureaucratic hurdles, procurement delays, construction issues, human resource recruitment, and inflation, most planned activities were successfully implemented. However, the concurrent implementation of several interventions was a major weakness of the project design. Future projects should consider the sequential implementation of interdependent interventions.

Experience from the project revealed that building the capacity of the health system in a post-conflict area requires a balanced approach combining short and long-term interventions. While short-term measures like subsidies for NHIF subscribers and recruitment incentives for PHC facility staff addressed immediate beneficiary needs, they did not fully tackle systemic issues such as poor staffing norms and limited SMOH budget. Long-term interventions involving policy reforms are necessary for addressing these systemic challenges.

The project highlighted the importance of robust monitoring and evaluation systems for evidence-based decision-making. Effective supervision and monitoring allowed the HealthPro staff to identify and address challenges promptly, while regular reporting kept stakeholders like the EU, WHO and FMOH informed about project progress⁵⁶. Periodic review meetings provided an opportunity for different stakeholders to assess their performance and devise corrective actions. Improvement in joint supervision was identified as a crucial area for future projects.

The project has demonstrated the practicality of ensuring the sustainability of project outcomes through a multifaceted approach, including engagement of local stakeholders, alignment of interventions with national priorities, and promoting of ownership and accountability. The HealthPro project has also demonstrated the viability of securing domestic funding through alternative financing, such as social health insurance, as a solution to reducing heavy reliance on donor aid in the Sudan health system.

The challenges faced by the HealthPro project highlight the need for in-depth contextual analysis and robust risk mitigation plans. Risks such as insecurity, natural disasters, limitations to individual travel, and inflation materialized during project implementation and significantly impacted efficiency and effectiveness. Future projects should develop comprehensive risk mitigation plans to address these potential risks.

RECOMMENDATIONS

Addressing Geographical and financial barriers to access: The evaluation found that despite significant achievements in strengthening the health system in Kutum, Serf Umra, and Umbaru localities, a significant portion of the population still faces geographical and financial barriers to healthcare access. To address geographical barriers, mobile clinics or outreach programs can be utilized. Community health workers play a vital role in overcoming these barriers. Identifying opportunities for public-private partnerships with healthcare providers in remote areas meeting NHIF standards is crucial. Efforts are needed to expand NHIF coverage and ensure the affordability of

⁵⁶ KII with SMOH staff (M&E)

premiums through regular assessments. The 25% co-payment on prescribed medicines should be revisited once NHIF achieves economies of scale.

Addressing Budget Constraints of SMOH: GOAL should advocate for increased government budget allocation to healthcare to enhance SMOH's financial capacity. This involves engaging policymakers and donors to prioritize healthcare funding and exploring strategies like earmarking taxes on products with negative public health impact (e.g., tobacco, sugary beverages) to bridge the gap between public health expenditure and resource allocation.

Addressing the unstable political context: GOAL should enhance engagement with political leaders and policymakers for sustained support and resource allocation, and advocate for the integration of HealthPro initiatives into national health policies and plans. Additionally, the project team should monitor the political context, adjusting strategies as needed to mitigate the impact of civil unrest and conflicts.

Expanding Preventive Services: GOAL should advocate for increased investment in preventive healthcare services by NHIF, NMSF, and SMOH, emphasizing a comprehensive approach to healthcare that includes health promotion and prevention. The project should also enhance the capacity of partnering NNGOs in fundraising, management, and technical expertise to ensure the sustainability of SBCC interventions.

Addressing Human Resource Constraints: GOAL should advocate for increased government investment in healthcare worker recruitment and retention. Additionally, GOAL can assist the Ministry of Health in developing a comprehensive human resources management database that maps out the distribution of health workers and includes salary scales. This data can be utilized to advocate for the absorption of volunteer health workers into healthcare facilities when vacancies appear. Additionally, GOAL should provide support to the ministry in updating the employment register and conducting a census for health workers. The census results will inform planning, and budgeting, and facilitate systematic filling of human resource gaps.

To address project inefficiencies, several measures can be implemented throughout the project cycle:

- Sequential execution of interrelated tasks using tools like PERT diagram and Critical Path analysis to minimize redundancies and delays, ensuring timely completion.
- Developing and implementing robust security plans in areas with security issues, collaborating with local authorities, conducting security assessments, and implementing appropriate measures to ensure staff and project safety.
- Identifying and addressing root causes of procurement delays, simplifying bureaucratic procedures, and exploring alternative procurement options to expedite the process of acquiring medical equipment and supplies.
- Prioritizing clear communication, adequate vetting of contractors, regular monitoring, and effective coordination to minimize delays caused by contractor misunderstandings in construction and renovation projects.

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- Taking proactive measures to anticipate and address unforeseen events, such as anticipating risks, enhancing planning and coordination, implementing early warning systems, strengthening communication channels, and fostering collaboration among stakeholders.
- Nurturing and strengthening partnerships with relevant stakeholders through regular joint supervision visits and close collaboration with the SMOH, NMSF, NHIF, and local communities to improve project efficiency and effectiveness.
- Developing strategies to adapt to external factors like the COVID-19 pandemic⁵⁷ and seasonal challenges, including contingency planning, strengthening supply chain resilience, and ensuring effective communication and coordination during crises.
- Addressing water shortages in healthcare facilities through solutions like rainwater harvesting or water storage systems, and exploring multisectoral collaboration to tackle challenges like impassable roads.

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⁵⁷ KII with AICS Project officer

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5.0 APPENDICES

Updated Log frame matrix

	<i>Results chain</i>	<i>Indicator</i>	<i>Baseline (value & reference year)</i>	<i>Yr1 (2020)</i>	<i>Yr2 (2021)</i>	<i>Current value (2022) Midterm/endline</i>	<i>Target (value & reference year)</i>	<i>Source and mean of verification</i>	<i>Assumptions</i>
<i>Impact (Overall objective)</i>	To contribute to providing universal health coverage in North Darfur State	Impact Indicator 1: % of population in target areas with access to functional health facilities, disaggregated by sex age, and disability	<p><i>Impact Indicator 1: 33.58% (April 2021)</i></p> <p><i>M=34.45%</i> <i>F=32.75%</i></p> <p><i>< 5 yrs. = 35.60%</i> <i>5-17 yrs. =30.56%</i> <i>18-30 yrs. = 34.50%</i> <i>31-59 yrs. = 35.17%,</i> <i>and 60+ yrs. = 37.16%</i></p> <p><i>Disability = 32.67%</i></p>	<i>n/a</i>	<i>n/a</i>	<p><i>Impact Indicator 1: 59.7%</i></p> <p><i>M= 68.67 %</i> <i>F= 57.50%</i></p> <p><i><5yrs = 57.6%</i> <i>5-17yrs = 58.9%</i> <i>18-30yr = 57.6%</i> <i>31-59yr = 59.1%</i> <i>60+yrs = 58.8%</i></p>	Impact Indicator 1: 95% in target areas; this will be measured by catchment population of functional health facilities	<ul style="list-style-type: none"> • Baseline survey and Project Midterm and end line surveys 	<i>Not applicable</i>

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Outcome (s) (Specific objective(s))	The decentralised health system in North Darfur State is strengthened so that Locality Health Departments are able to deliver Primary Health Care to protracted IDP and host communities	Outcome Indicator 1: # of Locality health department annual action plans where 60% of recommendations / activities have been implemented Outcome Indicator 2: % of clinics providing NHIF services	<i>Outcome indicator 1: 0 (no action plans in place)</i>	0 out of 3 n//a	1 out of 3 71% Kutum, 36% Serf Umra, 0% Umbaru n//a	2 out of 3 82% Kutum, 62.8% Serf Umra, 38% Umbaru 90%	Outcome Indicator 1: 3 locality health department and 60% of their action plan Outcome Indicator 2: 100% of targeted PHC facilities	<ul style="list-style-type: none"> • SMOH and LHDs reports • HIS (DHS2) data • Health facilities reports • Support supervision reports • Program reports • Program Midterm/endline M&E report • Program Final Report 	<ul style="list-style-type: none"> • Peace prevails and security is maintained • No major natural and man-made disasters • No limitation to individual movement
Outputs	Output 1: The Governance of the decentralized health system, particularly of the Locality Health Departments, is strengthened in line with the WHO District Health System definition	Indicator 1.1: % of target area LHD with operational office (facilities, equipment's, staffing and means of transport) and operational Indicator 1.2: # of community health committees formed, provided technical support by the Action, and actively	1.1: 33.3% (1 out of 3 LHDs) 1.2: 0 (no support provided to community health committees)	1.1: 33.3% (1/3 LHD offices) 1.2: 0 (no support provided to community health committees)	1.1: 100% (all 3 LHDs) 1.2: 10 Community Health Committees ; 1 per health	1.1: 100% (all 3 LHDs have operational office and are operational) 1.2: 10 Community Health Committees provided technical support and actively participating	1.1: 100% (3 out of 3 locality health departments) 1.2: 10 Community Health Committees provided technical support and	<ul style="list-style-type: none"> • SMOH and LHDs report • DHS2 data • Health facilities reports • Meeting minutes • Supportive supervision reports • Program reports • Program Midterm M&E report • Program Final Report 	<ul style="list-style-type: none"> • FMOH and SMOH support and ongoing commitment to project • State authorities support • Peace prevails and security is maintained • No major natural and

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		participating in meetings at the LHD level			facility supported and actively participating		actively participating		<p>man-made disasters</p> <ul style="list-style-type: none"> • No limitation to individual movement • National financial and energy situation stabilized • Community support • Active participation by women and men in all project activities
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	<p>Output 2: Health System building blocks (Human Resources for Health, Health MIS, Medical Supplies, and Health Financing) are supported with capacity building for key actors, infrastructure, and phased subsidies for patient costs to ensure the quality and accessibility of PHC services</p>	<p>Indicator 2.1: # of HRH trained, trained staff disaggregated by sex; Indicator 2.2: % of population with awareness of NHIF services availability in their area Indicator 2.3: # targeted health facilities with trained staff on NMSF supply management system Indicator 2.4: % Target localities reporting HMIS /DHIS 2 monthly</p>	<p>2.1: 0 2.2: 18.89% (April 2021) 2.3: 0 (April 2021) 2.4: 20% (2 out of 10 facilities)</p>	<p>2.1: 36 (18 female and 18 male) 2.2: n/a 2.3: n/a 2.4: 20%</p>	<p>2.1: 205 (121 female and 84 male) 2.2: n/a 2.3: n/a 2.4: 90%</p>	<p>2.1: 241 (139 female and 102 male) 2.2: 61.19% M=72.09% F=70.67% 2.3: 10 2.4: 90%</p>	<p>2.1: 100 health clinic staff trained through formal and on-the-job trainings 2.2: 90% 2.3: 10 2.4: 100%</p>	<ul style="list-style-type: none"> • Program reports • Training reports • Program Midterm/endline M&E report • Program Final Report • HIS (DHS2) data 	<p><i>In addition to above:</i></p> <ul style="list-style-type: none"> • Internet service remains functional in Kutum, Umbaru, Serf Umra (for DHIS 2 reporting)
	<p>Output 3: The decentralized health system is supported to provide a full PHC package of</p>	<p>Indicator 3.1: % of health facilities in target areas providing full package PHC services</p>	<p>3.1: 0%</p>	<p>3.1: 0%</p>	<p>3.1: 100%</p>	<p>3.1: 80%</p>	<p>3.1: 100%</p>	<ul style="list-style-type: none"> • Program reports • Health facility HIS data (including OTP data) 	

	<p>basic health and nutrition services utilized by host communities and IDP, through equipment and infrastructure support, NHIF accreditation, and social behaviour change among the communities</p>	<p>Indicator 3.2: # of people disaggregated by sex, age and disability, including forcibly displaced and their host communities, receiving improved access to health</p> <p>Indicator 3.3: # of people disaggregated by sex, age and disability, including forcibly displaced and their host communities, benefiting from nutrition related treatment, sensitization to improved</p>	<p>3.2: 0</p> <p>3.3: 0</p>	<p>3.2: 43,135 M=19,890 F=23,245 < 1 yr. F=2353 M=1960 1-4 yr. F=4085 M=3808 5-14 yr. F=4489 M=4273 15-44 yr. F=6623 M=4321 45-64 yr. F=3540 M=3426 65+ yr. F=2155 M=2102</p> <p>3.3 964 (501 female 463 male) (children < 5 years of age)</p>	<p>3.2: 42,119 M=18,781 F=23,338</p> <p>< 1 yr. F=2346 M=3080 1-4 yr. F=4110 M=3301 5-14 yr. F=4682 M=3895 15-44 yr. F=8557 M=4057 45-64 yr. F=3271 M=2789 65+ yr. F=1372 M=1659</p> <p>With disability = 684</p> <p>3.3: 2,857 (M= 1,066 F=1,791) (children < 5 years of age)</p>	<p>3.2: 97,228 M=41,188 F=56,040</p> <p>< 1 yr.=20,736 1-4 yr. =15,102 5-14 yr. =15,807 15-44 yr. =26,551 45-64 yr. =11,706 65+ yr. =6,353 With disability = 684</p> <p>11,736 (M=5,751 F=5,985) (2,727 were <5 years of age)</p>	<p>3.2: 136,815</p> <p>3.3: 24,338</p>	<ul style="list-style-type: none"> • Program Midterm/endline M&E report • Program Final Report • Project surveys • NIPP database 	
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		<p>nutritional practices, and support for nutrition sensitive agricultural practices</p> <p>Indicator 3.4: # of target health facilities Rehabilitated and equipped.</p> <p>Indicator 3.5: % of caregivers who reported that they took their children to a health facility when they have a fever</p> <p>Indicator 3.6: Number of NIPP circles (male plus female circles) established and functional to prevent malnutrition.</p>	<p>3.4: 0</p> <p>3.5: n/a</p> <p>3.6: 0 NIPP circles</p>	<p>3.4: 0</p> <p>3.5: n/a</p> <p>3.6: 0</p>	<p>3.4: 3</p> <p>3.5: 78.57%</p> <p>3.6: 0</p>	<p>3.4: 10</p> <p>3.5: 84.94%</p> <p>3.6: 52 (M=15 F=37)</p>	<p>3.4: 10</p> <p>3.5: 90%</p> <p>3.6: 72 NIPP Circles</p>		
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