



SCOPE CODA: HOW DIGITAL TECHNOLOGY TOOLS CAN TRANSFORM THE WAY WE FIGHT MALNUTRITION, SOUTH SUDAN

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BACKGROUND AND CONTEXT

Maternal and child undernutrition is a significant public health problem in South Sudan, a country beset by conflict and recurrent nutritional crises. The Community Management of Acute Malnutrition (CMAM) guidelines for South Sudan shows that 31 per cent of children aged 6-59 months are stunted, and 28 per cent are underweight; nearly 23 per cent are acutely malnourished (13 per cent suffer from moderate acute malnutrition and 10 per cent from severe acute malnutrition). The Integrated Food Security Phase Classification from September 2018 projects that 54.6 per cent of people in the Northern Bahr El Ghazal region will soon be at risk of severe food insecurity. Effective and efficient CMAM for children under five and pregnant and lactating women is

therefore essential.

Action Against Hunger implements nutrition interventions in South Sudan using National CMAM guidelines and protocols. Currently, CMAM tools are manual and paper-based: registers, treatment and ration cards, as well as reporting tools at nutrition sites. At the end of each month, nutrition partners in South Sudan share their CMAM reports with the nutrition cluster and the Ministry of Health through the national Nutrition Information System (NIS).

This manual CMAM reporting system poses challenges that may negatively impact the quality of care, such as:

- The personal data of beneficiaries is insufficiently secure.
- Relevant information is not easily accessible. It is difficult to retrieve beneficiary data, especially if they

lose their ration cards.

- Different data collection, storage and reporting tools lead to duplications and errors, including incorrect admission/discharge information and double registration.
- Low referral linkages between outpatient therapeutic programmes and target supplementary feeding programmes lead to a poor continuum of care.
- A paper-based approach reduces the ability to track relapses, defaulters or delayed discharges, reducing the efficiency of services.

SCOPE CODA

These challenges prompted the South Sudan Nutrition Cluster partners to look for a robust alternative. Together with the World Food Programme

(WFP) and Medair, Action Against Hunger has piloted SCOPE CODA,¹ a digital information management system that allows frontline workers to track the nutrition and health status of beneficiaries. This system was developed in line with the procedures and recommendations of the existing CMAM guidelines in South Sudan.

SCOPE CODA builds on WFP's existing SCOPE platform, which is "a web-based application used for beneficiary registrations, intervention setups, distribution planning, transfers and distribution reporting."² SCOPE CODA expands on this platform by providing smartcards to beneficiaries, which they then present when they visit a clinic. An app is installed on devices used by community nutrition workers, which can read these smartcards and upload patient information to a secure digital file. In this way, beneficiary information can be easily tracked all the way from registration to discharge. This system will therefore replace the current paper-based registration system, ration cards and reports for each beneficiary receiving services.

To date, the following phases of the pilot have been implemented:

- **Phase 1 (2017)** included a scoping mission by the WFP Global Expert Team, software development based on national CMAM guidelines, a first controlled environment test, initial training (WFP, UNICEF, Ministry of Health, Action Against Hunger and MEDAIR) and second controlled environment test.
- **Phase 2 (2018)** involved training of staff on the implementation of SCOPE CODA pilot. Eight of our staff at various levels were trained and the roll-out of a digitised platform began in March.

In the coming months, biometrics for children under five and pregnant and lactating women will be included in SCOPE CODA, which will greatly improve the issue of double registration of beneficiaries in different nutrition centres.

SUCCESSES SO FAR

Action Against Hunger has already begun to see benefits from the programme, including improved data availability, improved patient flow, and increased ability to locate patients. Augustino Akuen Dut, our Community Nutrition Worker at Gabat site, who has been involved in the pilot since the beginning, believes SCOPE CODA can substantially improve nutrition programmes: "CODA has been helpful to me because it

is easy to use, it is faster in entering data on the assistance card, it detects mistakes made during admission, the assistance card can be erased and reused, it saves ink and pen, and it keeps the data properly and longer."

There are several tangible successes and outcomes of the SCOPE CODA system. Firstly, it ensures that mothers go through the entire treatment process (health and nutrition education, anthropometric measurements, clinical assessment and dietary assistance) – since the device is based on the CMAM protocol, it helps health workers to perform all clinical assessments / checks in a streamlined way. It also ends the need to print out ration cards / treatment cards, helping to bring down the cost of treatment. For beneficiaries, SCOPE CODA has greatly improved services at the nutrition site and they feel more confident about the assistance they receive. Additionally, CODA cards are more easily maintained, as described by one patient: "My children used to destroy or dirty the paper ration cards, prompting community nutrition workers to complain about our handling of the cards, but now with the SCOPE CODA beneficiary card, our children can no longer destroy or dirty the cards."

1 Conditional On Demand Assistance = CODA

2 SCOPE In Five Minutes, World Food Programme. December 2014.

CHALLENGES AND MITIGATION STRATEGIES

As a pilot programme, SCOPE CODA has faced specific challenges during the initial roll-out phase. Below are some key challenges that Action Against Hunger and other partners have faced so far, as well as mitigation strategies used to overcome these challenges.

1. **Device synching:** Distance from the nutrition sites to our base in Maluakon to sync the devices was a challenge: this was solved by WFP providing space in their field office in Aweil, located close to the site, where staff could also have support from a WFP nutritionist and SCOPE CODA project manager.
2. **Powering devices:** Charging CODA devices by solar panels became a challenge when the panels initially provided started breaking down. Moving to another place for charging is also difficult. The partners are working on a durable solution, involving strong power-banks for remote sites. **Staff capacity:** When the pilot started, there was a sudden increase in caseload at the site. This challenge

was temporarily addressed by increasing the number of staff at the site. Overtime the caseload re-adjusted to its previous level.

3. **Reporting and data quality:** From the beginning, the CODA reporting platform has been unsatisfactory for obtaining accurate data. Currently, CODA is still building an online platform where all stakeholders can view the reports, this is not yet available. Additionally, there is still some mismatch in the data between CODA and manual reports, which is being addressed; for now we are continuing to use both CODA and manual system. Partners have provided comprehensive feedback to WFP to inform improvements in reporting and data quality for future SCOPE CODA use.

With these challenges addressed, SCOPE CODA has the potential to improve case management in malnutrition treatment and potentially in other integrated essential services.

LESSONS LEARNED: GUIDANCE FOR FUTURE PROGRAMMES

In October 2018, WFP organised a global lessons learnt workshop

in Rome to capture the learning and ways forward from the pilot, which so far has been implemented in three different countries (South Sudan, Uganda and El Salvador). The workshop identified key recommendations for future roll-out of this programme, including:

- Secure optimal internet connectivity before project launch to avoid challenges with data synchronisation.
- Have the report platform ready beforehand to ensure full uptake of the project without the manual system.
- Provide reliable charging options for the devices at nutrition sites ahead of the project.
- Develop and fully incorporate the biometrics at the beginning of the project to ensure greater impact.
- Take enough time to train nutrition site staff. They also need practical guidance sessions at nutrition sites with different scenarios together with theoretical scenarios.
- Make sure that support from the CODA technical team is always available, on site and remotely.