

Roll out of Saga Stock Pharmaceutical Software

The lessons learned presented here are drawn from the pilot experience of Concern Chad and Concern South Sudan (SS).

Overview

Access to essential medicines and nutrition commodities in countries with fragile health systems is critical. Chad's already fragile health system is under immense pressure. With limited resources and infrastructure strained, the health system is facing challenges to support Sudanese refugees without neglecting the health needs of its own citizens. In South Sudan, the shortage of health infrastructure, personnel, equipment and products with the continuity of conflicts that engulfs the country's health system. There is a need to set up a supply chain management system for the flow of medicines.

At institutional level, the need for a standardized software tool to efficiently capture medical supply chain data is also paramount. The Saga Stock pilot was deployed in February 2024 for Concern Chad and in July 2024 for Concern SS. These two locations were chosen for the one-year pilot because both had a pharmacist, a basic stock management system already in place and a high volume of medication.

The objective was to improve the medical supply system operated by Concern so that all the functions as outlined in Fig. 1 can better work together. It is worth noting that in Concern, linkages between these functions are still being developed and strengthened, with a major focus on the procurement function.

The expected results included:

- Accurate pharmaceutical data to support decision-making.
- Improve forecasting and budgeting.
- Identify and anticipate stock outs, over-stocks and expired products.
- Improve monitoring of consumption for essential medicines and RUTF.
- Increase potential to ensure optimal use of safe medication, especially in the context of antibiotic resistance.
- Improve donor accountability through improved traceability and reporting.



Figure 1: The medical supply cycle

Situation pre and post Saga Stock roll out

Both Concern Chad and Concern SS faced several challenges in managing multi-grants and multi-location projects (Fig 2).



Figure 2 : Pre-Saga Stock

To address these issues and support management of pharmaceuticals¹, an initiative was taken to pilot Saga Stock in four locations (2 Central Pharmacies in Chad and 2 in SS). The contract with the supplier, EPICONCEPT, was developed to cover the cost of the 2024 licence.

Saga Stock is a pharmacy management tool developed for NGOs working in humanitarian settings to allow organisations to better manage their pharmacy and medical supplies. It is easy to use and adaptable based on the needs and type of health programme being implemented. The software costs are also modest, i.e. approximately €2,800 total for two countries.

Within the first month, following the implementation of Saga Stock, improvements were seen quite rapidly. As the teams became increasingly familiar with the software, several improvements were observed.

Improved standard practices:

- Updated standard list(s) by level of care.
- Harmonized product designation.
- Proper product labelling.
- Systematic monthly inventory.
- Introduction of a Monthly Pharmacy Report (Chad).
- Real time stock status, enabling to minimize stock outs, prevent wastage and manage inventory.

¹ In this paper, pharmaceuticals refer to health and nutrition-related products, including essential medicines, RUTF, medical consumables and medical equipment.

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- Monitoring of Average Monthly Consumption (AMC), tracer medicines and prescriptions (Chad).
- Improved data accuracy resulting in improved quantification and ordering.
- Increased information sharing between Programmes and Logistics/Supply Departments within Concern.



Bagasola Central Pharmacy, Concern Chad



Labelling, Bentiu Central Pharmacy, Concern SS



Nyamllel Central Pharmacy, Concern SS



Stock management, Health Centre, Concern SS

Lessons Learned

1. **A set of minimum requirements needs to be in place in-country before the roll out of a pharmacy management tool.**

Minimum requirements at country level include:

- Existing basic stock management standards.
- Excel stock recording system in place.
- Dedicated and motivated staff, at both programming and supply level.
- An agreed and validated standard list by level of care.
- A list of identified non-standard items (i.e. articles outside of Concern Catalogue for Health & Nutrition products).

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- A Country Pharmacist with IT skills and a dedicated pharmacy laptop.
- A budget for a Consultant Pharmacist to support the preparatory database work, 1-week training and a minimum of 3 to 4 coaching sessions. The Consultant Pharmacist should have strong experience in the use of Saga Stock or other chosen pharmacy management tool.

2. Preparedness is an essential part of Saga Stock roll-out and should be factored into the pilot.

To better analyse fluctuations of consumption over a long period and make the quantification more accurate, the last six-month data in each of the Central Pharmacies were captured during the preparatory phase. Monthly inventory, incoming and outgoing data collected in Excel spreadsheets were therefore entered into the software. This exercise revealed discrepancies between theoretical and physical stocks recorded in Excel. Even though fixing errors and inconsistencies proved labour-intensive and time-consuming, it was essential to ensure accuracy, completeness and reliability of the Saga Stock database before the rollout.

The decision, however, to enter retrospectively the data, will depend on the volume of pharmaceutical and medical supplies managed at Central Pharmacy level. Such decision should be discussed with the Pharmacist supporting the preparatory phase.

3. It is imperative to have a well-organized stock management before the rollout, while ensuring rigor and staff commitment throughout the implementation process

At Central Pharmacy level, properly labelled and organised pharmaceutical stocks by donor are a critical factor in the overall success of Saga Stock. During implementation, six enabling factors are essential to the sustainability of Saga Stock:

1. Rigor in writing correct entry on the stock card and archiving paper source documents.
2. At least weekly dedicated time for data entry into the software.
3. Having one trained staff to serve as a backup for Concern in-country Pharmacist.
4. Commitment and leadership at both Programme Manager and Senior Management Team (SMT) level.
5. Coaching from an experienced Consultant Pharmacist.
6. Considerable support from the Focal Point at HQ level.

4. The software has its own limitations

- Saga Stock is only capable of functioning offline vs a cloud-based online system. As a result, there is no real-time overview of all stocks across the country.
- The management of kits remains complex
- It is still necessary to use Excel for tracking expired dates in kits and for monitoring back orders.
- The best way to learn Saga Stock is to practice and experiment with it. There was a tendency to underestimate the amount of time it would take to practice the software beyond the basic training. Many participants of the Saga Stock training missed opportunities to consistently apply the software and therefore

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enhance the usage practices. Unfortunately, at the end of the pilot, very few participants applied the new skills and knowledge in their daily work. Access to pharmaceutical software alone, however, is not a panacea. More is to be done on addressing institutional challenges.

The pilot highlighted critical gaps in the way Concern manages pharmaceuticals. The use of Saga Stock alone is unlikely to address those institutional challenges and there is an urgent need for increased commitment and focus at HQ level on quality standards across the various medical supply functions.

Conclusion & Way Forward

At country level:

The success of Saga Stock for Concern in both Chad and SSS are based on three key elements: a well-organised stock management system; the competence of national staff; and their degree of ownership and motivation. These could also be applied to Concern's global programmes as prerequisites for any pharmacy management software.

Both Concern Chad and Concern South Sudan have expressed the need to renew Saga Stock licence for 2025.

Concern Chad is well advanced in the use of Saga Stock, especially in Bagasola. Consumption data is now being crosschecked with stock movements at a more detailed level, and improvements are underway in prescription tracking. In Goz Beida, there were some challenges with the previous project Pharmacist however, the arrival of a new project pharmacist under the 'Pharmacist Supervisor Coaching' looks hopeful. The Consultant Pharmacist will also support the revision, correction and cleaning of the databases in January 2025. In parallel, Project Standard List(s) will be reviewed and adjusted, and non-standard products rationalised.

The progress achieved by **Concern SS** is still at the early stages, but the Senior Management Team (SMT) has taken several steps to address challenges in pharmaceutical and medical supply management.

After a few months of Saga Stock practice in Nyamlell Central Pharmacy, Northern Bahr el Ghazal state, South Sudan, Concern's Roving Pharmacist in SS, is now able to master the basic functions of the software. For specific support or problem solving, she has also been receiving support from Concern Chad team. Under Irish Aid funding, there is a plan to recruit a Pharmacist Officer. This position will help support the multi-grant and multi-location projects, improve data accuracy and focus as well on other critical functions such as rational use at end-user units.

In Bentiu Central Pharmacy, progress in the use of the software has been less than initially expected due, in part, to human resource limitations. As a result, the software is not yet operational. While the recruitment of a Pharmacist Officer under ECHO funding is likely to improve the situation, the post holder will require coaching and follow up support to organise the various health and nutrition stocks properly and gain a deep understanding of the software.

At Head Office level:

The Global HQ Pharmacist position is the vehicle through which best practices in medical supply chain management can be institutionalized. His leadership is also essential if the use of Saga Stock is to be continued and/or scale up to other countries of operation.

The pilot has raised the urgent need to reinforce basic Pharmacy principles and address institutional gaps, more specifically:

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- To strengthen each function of the medical supply chain from selection to end user through the development of Standard Operating Procedures (SOP) and supervision tools.
- To establish trackable key performance indicators (KPIs) for continuous monitoring and improvement (e.g. discrepancy rate, with target set to <5%).

At institutional level the second phase of the pilot for 2025 should prioritize:

- The alignment to Concern's Catalogue for Health and Nutrition products and the streamlining of non-standard items.
- The coding system for pharmaceuticals in discussion with Concern's Logistics Enterprise Resource Planning (ERP) Project Manager.
- The complementarity and compatibility of Saga Stock with Concern's ERP system.

Scaling up the software to other Concern countries should consider the lessons learned on minimum requirements. Since the Pharmacist Supervisor for Concern Chad has an excellent command of the software, his support for the deployment of Saga Stock to French-speaking countries should be considered.