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*Applying Science to Strengthen  
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## CASE STUDY

### Increasing the Enrollment of Malnourished Clients on Ready-to-use Therapeutic Foods at Kitgum General Hospital, Northern Uganda

#### Summary

Hospitals throughout Uganda treat severely malnourished children without medical complications through outpatient therapeutic care programs using ready-to-use therapeutic food (RUTF). During a baseline assessment at Kitgum Hospital in Northern Uganda, facility staff realized that only 60% of its identified malnourished clients at different service points were being appropriately treated for malnutrition using RUTF. A quality improvement team in the hospital identified gaps and tested several interventions to improve the enrollment and treatment of eligible clients with RUTF. They gradually improved enrollment from 30% in June 2015 to maintaining 100% enrollment through April 2016. Enrollment increased due to: 1) use of non-clinical staff to dispense RUTF at different points, and 2) physically escorting identified malnourished clients to reduce the number of malnourished clients getting lost within the health facility when referred to the RUTF dispensing points.

#### Background

According to the Uganda Demographic Health Survey (UDHS, 2011), 33% of children under the age of five are stunted, 5% are wasted, 14% are underweight, and 60% of child mortality is associated with underlying malnutrition. Micronutrient malnutrition or “hidden hunger” is also common in Uganda, with 23% of women aged 15-49 years and half of Ugandan children 6-59 months being anemic. Hospitals throughout Uganda treat severely malnourished children without medical complications through outpatient therapeutic care (OTC) programs using ready-to-use therapeutic food (RUTF). Cases of moderate acute malnutrition (MAM) with HIV/TB are also treated in the OTC according to the national protocol under the nutrition assessment, counseling, and support (NACS) procedure that stipulates timely detection, referral, and early treatment of clients before the health condition becomes severe or onset of complications.

During a baseline assessment at Kitgum Hospital, which is one of the 11 nutrition collaborative improvement sites that are currently implementing nutrition quality improvement (QI) work supported by USAID ASSIST, staff realized that only 60% of identified malnourished clients at different service points, including the ART clinic, were being appropriately treated for malnutrition using RUTF. The team identified gaps and tested several interventions to improve the enrollment and treatment of eligible clients with RUTF.

#### Kitgum Nutrition Department QI Team Members

1. Hospital nutritionist
2. Health facility nutrition focal person
3. In-charge ART clinic
4. Nursing officer

#### Improvement Process

Kitgum Hospital’s QI team was a large team that was implementing other improvement projects than nutrition. The nutrition department decided to form its own QI team and was supported by ASSIST to form their own team mainly through coaching, mentoring, and providing the materials and tools needed by the team. The four-person team was able to establish team roles during an ASSIST-led coaching session.

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The team assessed baseline data for the previous three months and found a 40% gap in enrolling eligible malnourished clients on RUTF. The team identified the following causes leading to this gap in enrollment:

1. Identified eligible clients were getting lost within the health facility when referred from the ART clinic to the RUTF dispensing point
2. Some clients decided not to go the RUTF dispensing point because of stigma attached to RUTF
3. Frequent RUTF stock-outs at the facility
4. Trained health workers who dispense RUTF were not always available at the dispensing point

The nutrition department's QI team developed this improvement objective: *to increase the percentage of eligible malnourished clients enrolled in the OTC program from 60% in March 2015 to 85% by the end of August 2015.* They tested the following changes to attain the improvement objective:

1. Mentor linkage facilitators and engage them to dispense RUTF
2. Identify and escort clients to RUTF dispensing points
3. Create new RUTF dispensing points other than the pharmacy

On a monthly basis, the QI team collected and reviewed data to monitor their progress and make changes in their service delivery to ensure improvements. ASSIST also supported the QI team during monthly coaching and mentorship visits.

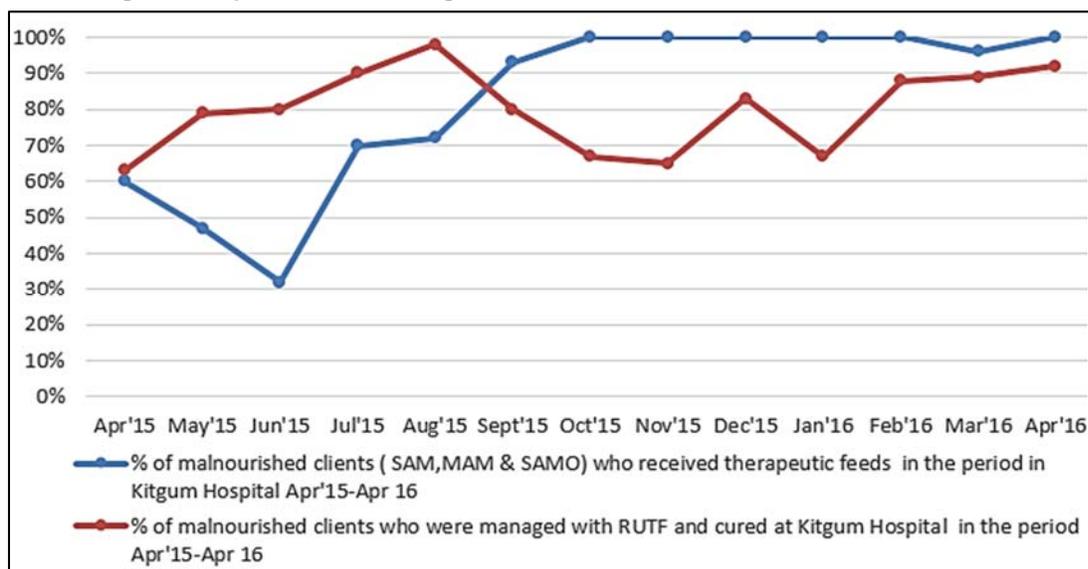
## Results

Following the first nutrition collaborative learning session in June 2015, the team learned and began testing best practices from other facilities. They gradually improved enrollment from 30% in June 2015 to 70% in July 2015. However in August 2015, they reported only a two percent increase in enrollment and decided to test the following changes to improve further:

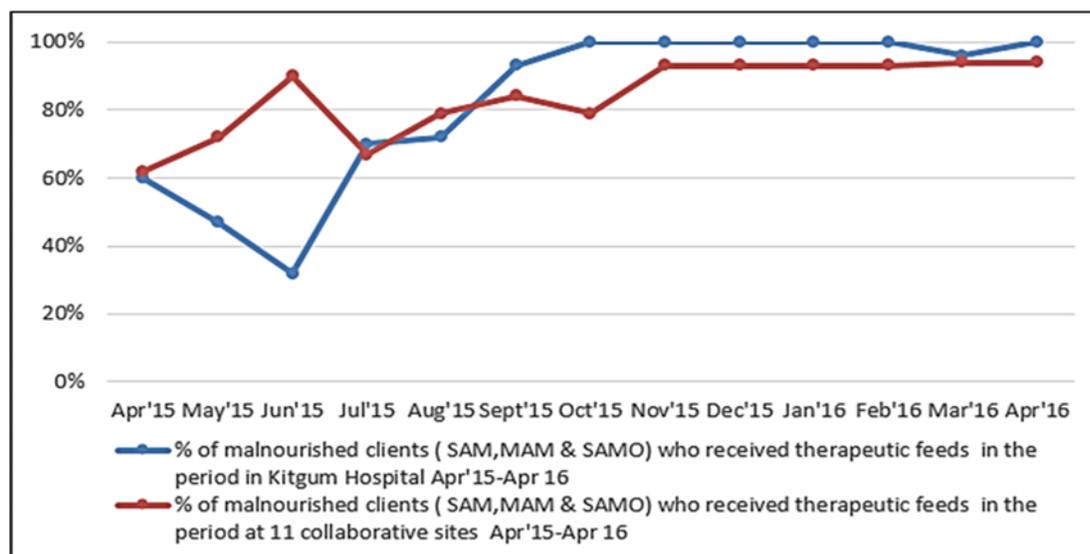
- Create more dispensing points for RUTF in the outpatient department, the pediatric ward, and the antenatal clinic. They previously had one dispensing point and one staff, in whose absence clients wouldn't receive RUTF.
- Mentor and engage linkage facilitators to dispense RUTF due to the limited number of health workers.

In September 2016, the QI team saw an improvement from 93% to 100% in enrollment. The OTC program continued to maintain this performance through April 2016, as shown in **Figure 1**. Likewise, the treatment cure rates of clients malnourished who received therapeutic feeds increased from 63% (April 2015) to 92% (April 2016), also seen in **Figure 1** below. **Figure 2** shows the enrollment of malnourished clients on RUTF in 11 other nutrition collaborative sites in comparison to Kitgum Hospital's progress.

**Figure 1: Percentage of malnourished clients enrolled on therapeutic foods vs their treatment cure rates, Kitgum Hospital, Northern Uganda**



**Figure 2: Percentage of enrolled malnourished client therapeutic foods at Kitgum Hospital vs 11 nutrition collaborative sites in Northern Uganda**



### Lessons Learned

- Creating more dispensing points for RUTF within the health facility improves the enrollment of malnourished clients on RUTF
- Timely ordering of RUTF is key to avoiding stock-outs of RUTF
- Use of linkage facilitators to dispense RUTF improves the enrollment of malnourished clients on RUTF, especially in clinics with few staff
- Physically escorting identified malnourished clients to RUTF dispensing points can improve RUTF enrollment of malnourished clients.

### Conclusion

All malnourished clients who are eligible to receive RUTF should be enrolled in the outpatient therapeutic care program and follow treatment according to the MOH's national protocol. Health facilities with heavy workload due to low staffing levels should mentor and use non-clinical staff such as linkage facilitators to dispense RUTF at different dispensing points. These changes are key for successful enrollment of eligible malnourished clients. Having clinical or non-clinical staff physically escort identified malnourished clients will also reduce the number of the identified malnourished getting lost within the health facility when referred to RUTF dispensing points.

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### USAID Applying Science to Strengthen and Improve Systems (ASSIST) Project

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