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**ST. FRANCESCO DI'ASSISI MARIALLLOU HOSPITAL
TONJ NORTH COUNTY WARRAP STATE, SOUTH SUDAN
NUTRITION PROJECT 2014 ANNUAL NARRATIVE REPORT**



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1. Introduction and Background of the Program Area

Mariallou hospital is located in Mariallou village found in Tonj North County Warrap state, South Sudan. It served as Tonj North County referral hospital with a service area population of 165,222 people. However, 3 Payams namely Mariallou, Akop and Rualbet utilized the services of the hospital all year round in addition to clients from bordering Tonj East County. The total population of the three Payams was 41,997 people dwelling in 7,748 households, of which, 3,359 were pregnant and lactating women (PLW), 7,378 under five year old (U5) and 1,680 under 1 year old (U1).

Warrap state comprised 7 Counties namely ; Gongrial West, Gongrial East, Twic, Abyei, Tonj South, Tonj North and Tonj East. Warrap State capital (Kuajok) is more than 300KM West of the hospital and was inaccessible for the whole of the wet season due to damaged roads.

Tonj North County comprises 10 Payams namely ; Mariallou in which the hospital is situated, Akop, Alabek, Aliak, Awuul, Rualbet, Kiirik, Pagol, Warrap and Manloor. The County headquarter (Warrap) is 87Km to the North of the hospital and was also inaccessible during the wet season.

Tonj North County comprised 27 health facilities ie 1 hospital, 4 primary health care centres and 22 primary health care units. However 15 health facilities were fully operational i.e 1 hospital (Mariallou), 4 Primary Health Care Centres and 10 Primary Health Care Units! There was NO other health facility in Mariallou Payam in addition to Mariallou hospital!

Mariallou hospital has been run and managed by **Arkangelo Ali Association (AAA)** from October 2007 to date.

The overall goal of AAA was to improve the quality of life of the people of South Sudan by reducing human suffering and improving their social economic status whereas the mission was to uplift the dignity of the disadvantaged people through provision of social services more so in the health intervention. The core focus of the hospital was provision of **FREE** primary health care services with emphasis on maternal and child health care and emergence surgical interventions, with a view to improving community livelihood health through reduction on morbidity and mortality rates for the people of Tonj North County and bordering Tonj East and Tonj South Counties.

The burden of malnutrition among children up to 5 years old in Tonj North County was real and life threatening. Therefore the need for nutrition project was real and is still wanted at Mariallou hospital because it is the only centre capable of managing complicated cases of

malnutrition for the two counties i.e Tonj North and East. And secondly the prevalence and incidence of malnutrition is far from over in this service area.

Mariallou hospital offered free health services in both Outpatient (OPD) and Inpatient (IPD) departments daily at all times throughout 2014. The bed capacity of Mariallou hospital was 86: 30 beds in children ward, 47 beds in adult ward and 9 beds in maternity ward.

In **2014** the hospital attended **8,006** U5 sick children in comparison to 12,274 in 2013. **U5 OPD** consultations among were **6,166** as compared to 8,975 in 2013 and **U5 IPD** was **1,840** admissions as compared to 3,299 in 2013.

The disease burden among U5 during 2014 at Mariallou hospital was as follows:

- In OPD malnutrition was the 6th most cause of consultation. The top 10 causes of OPD consultation in chronologic order were Upper Respiratory Tract Infections (1,543 cases), Malaria (1,326 cases), Pneumonia (871 cases), Acute watery diarrhea (710 cases), Anemia (392 cases), Malnutrition (356 cases), Skin infection (312 cases), Eye infections (177 cases), Intestinal parasites (166 cases) & Ear infection (81 cases).
- In IPD Severe Acute Malnutrition (SAM) was the 4th most cause of admission. The top 5 causes of admission among children in chronologic order were Pneumonia (874 cases), Malaria (798 cases), Acute watery diarrhea with severe dehydration (179 cases), SAM with medical complications (161 cases), and Trauma/surgical conditions (76 cases).

2.0 Project Goal, Objectives & Outcomes In 2014

2.1 Project Goal

To improve health and nutrition services for people of Marial-Lou and its surrounding areas.

2.2 Project Objectives

- Maintaining quality health/nutrition care for all patients through the provision of quality and sustainable drugs, high energy food and other medical supplies.
- Increased curative and preventive activities, including immunization and Antenatal Care (ANC) Services.
- Providing high quality care for acute and complicated malnutrition among children by providing high energy food and treating underlying health conditions.

- Promote health awareness through health education with more emphasis on Infant and Young Child Feeding (IYCF) practices among Pregnant and Lactating Women (PLW).
- Promote capacity building of staff not only by training on new aspects and developments but also giving refresher courses to enhance skills
- To empower and or educate the people within the community through nutrition information so as to increase their capacity to make wise decisions related to the preparation of locally available foods.

2.3 Expected Project Outcomes

The expected outcome of the whole project period is:

- More than 15,000 U5 patients to be treated in OPD & IPD.
- Availability of stock of drugs at any one time.
- At least 10 staff will benefit from in house training in order to improve their skills in child health care.
- More than 10,000 mothers benefitted from health and nutrition health education
- More than 2,000 pregnant women attend ANC.
- At least 500 malnourished children will benefit for both therapeutic and supplementary feeding program. The expected clientele Exit performance indicator will be as follows:
 - a. Cure rate more than 75%
 - b. Mortality rate less than 10%
 - c. Defaulter rate less than 15%
- De-wormed of children aged 12-59 months old using albendazole
- Vitamin A supplementation for children 6 months to 5 years old.

3.0 Project Implementation In 2014

3.1 Project Resources

A couple of skilled and non-skilled personnel both expatriate and local were involved in implementing the project during 2014. An expatriate Clinician/Nutritionist (Κίνυμβί Jimmy) was directly involved & In charge of managing the project assisted by National Nutrition Assistants/Nurse Assistants namely Michael Makieu Kon and Arkangelo Deng Akol.

Fuel, supplies for solar energy maintenance, medicines & health supplies and assorted nutritious items were procured and delivered to Mariallou hospital to facilitate hospital operations and maintenance.

3.2 Admission Criterion

The nutrition program was static and based at Mariallou and Comboni Mariallou TB/Leprosy hospitals both managed by AAA.

Clients enrolled into the nutrition program through two nutrition interventions:

1. Therapeutic Feeding Program (TFP) for both Inpatient Therapeutic feeding Program (ITP) and Outpatient Therapeutic feeding Program (OTP).
2. Supplementary Feeding Program (SFP).

The criterion of admission of clients was as follows:

For TFP

- <70 % weight for height index for ages 6 months up to age 5 years.
- Body Mass Index (BMI) <16 for adults especially teenagers and PLW.
- Visible wasting or bilateral pitting edema for children < 6 months old.
- Bilateral pitting edema irrespective of % of weight for height, BMI and muscle wasting.
- Any degree of malnutrition coupled with severe/complicated medical conditions.

For SFP

- 70-80% weight for height index.
- Medical conditions that warranted nutrition intervention to enhance recuperation.
- Neonate prone to malnutrition due to demise of mother/handicapped mother.

3.3. Project Activities

The therapeutic and supplementary feeding programs were static and based at Mariallou and Comboni Mariallou TB/Leprosy hospitals. ITP operated 24 hours a day, 7 days a week and OTP/SFP Monday to Saturday during day time only.

Below is the summary of activities carried out:

- Therapeutic feeding for inpatient (ITP) on daily basis.
- OTP & SFP for 6 days every week for new entrants and biweekly for follow up.
- Health education on admission, during admission and on exit with more emphasis put on IYCF practices in both ITP/OTP and SFP
- Community mobilisation during health talks in OPD and IPD.
- Compilation, analysis and submission of periodic returns.
- Internal technical & supportive supervision of the project.
- Treatment of all malnourished clients with medical complications.
- Routine Vitamin A supplementation of children 6-59 months old.
- De-worming of children 1 to 5 years old.
- Routine growth monitoring of U5.

- Quantification and ordering of supplies.
- Monitoring and evaluation.
- Home visiting of clients on a need to know basis.



Picture of a child with exacerbation of SAM found out during home visiting

Other activities done were:

- Anthropometric measurement of clients on admission and follow up.



Above photo showing a Nutrition Assistant measuring a client's length



Above photo showing a Nutrition Assistant measuring MUAC



Above photo showing a Nutrition Assistant measuring weight of a client

4.0 Project outputs in 2014

2014 started with 1 client admitted in late December 2013 and all clients exited the program by the end of this reporting period. There was 1 readmission in 2014; a child found on home visiting in response to a whistle blower. In summary the project outputs was as follows:

- ✚ **410** clients (245 males & 165 females) were enrolled for all age groups in comparison to 461 enrolled in 2013. The target of 2014 was 500. The breakdown is as follows:
 - 203 U5 children presented with Severe Acute Malnutrition (SAM) of which, 161 went through ITP and 42 were enrolled in OTP.
 - 200 U5 children presented with Moderate Acute Malnutrition (MAM) and went through SFP as OPD clients.
 - 7 clients (4 males & 3 females) above 5 years old were enrolled into the nutrition program as ITP, of which, 2 were pregnant women.

Table below shows details of monthly admissions into the nutrition program in 2014 for U5 clients.

C a t e g o r y	I n t e r v e n t i o n	G e n d e r	Enrolment by month/gender											T o t	
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov		Dec
S A M	ITP (SC)	M	7	2	4	14	13	7	7	3	12	6	8	3	86
		F	5	3	9	7	13	15	3	4	7	4	8	0	78
	OTP	M	0	0	0	3	5	9	1	1	1	2	4	0	26
		F	0	0	0	0	3	1	1	2	3	1	4	0	15
M A M	SFP	M	12	1	6	12	19	5	13	15	8	19	22	3	135
		F	1	5	4	4	6	1	10	4	7	11	15	3	71
Grand Total			25	11	23	40	59	38	35	29	38	43	61	9	410

- ✚ Clients exited as follows; 370 cured, 5 died, 22 defaulted and 13 (all recuperated) were referred for TB treatment in Comboni Mariallou TB Unit.
- ✚ 2,499 children 6months to 5 years old were given vitamin A supplementation in order to prevent blindness caused by Vitamin A deficiency in comparison to 6,609 in 2013.
- ✚ 5,572 PLW were sensitized about IYCF practices in comparison to 8,483 in 2013. The target of 2014 was 10,000.

- ✚ 1,569 children 1 to 5 years old were de-wormed with albendazole in order to prevent malnutrition secondary to intestinal worm infestation in comparison to 3,951 in 2013.
- ✚ 3,063 pregnant women were given Ferrous + Folic supplementation in order to prevent intra uterine fetal growth restriction in comparison to 5,291 in 2013.
- ✚ 3,063 pregnant women attended Antenatal Care Clinic in comparison to 4,799 in 2013. The target of 2014 was 2,000.
- ✚ No routine U5 vaccination was done due to non availability of vaccines.

5.0 Underlying Causes of Malnutrition in 2014.

- I. Hunger resulting from exhausted food baskets (zero food security) & alarming abject poverty. Most clients narrated that they could hardly afford a daily meal. Poverty led to poor health and vice versa. Nearly all malnourished clients manifested with Marasmus.
- II. Gastrointestinal diseases that presented with diarrhea and vomiting especially intestinal parasitic infections like Giardia and Amoeba and also respiratory system infections like Tuberculosis, recurrent pneumonias and a few cases of pertussis. All these diseases led to lack of appetite and eventually malnutrition.
- III. Haphazard IYCF practices. Almost all the children were weaned to uncooked cow milk before 6 months old and when the time came for cessation of breastfeeding it was done abruptly and the poor child was snatched away from the mother and ended up in the cattle camp under the custody of weary old women and girls below 12 years old. This scenario hampered the wellbeing of a child as far IYCF practise is concerned. Children fell sick on a regular basis and received informal treatment. The commonest health problem caused by poor IYCF practices was Indigestion (diarrhoea).

6.0 Challenges/Constraints Faced In 2014

Supplies arrive late due to bad weather and impassable roads

7.0 Program Achievements In 2014

- I). Clientele exit indicators were met.
 - Cure Rate was 93.4% as compared to sphere standard of > 75%.
 - Mortality Rate was 1.2% as compared to sphere standard of <10%.
 - Default Rate was 5.4% as compared to sphere standard of <15%.



Client on admission



Same client on recuperation

II). Clients with worst scenario medical complications were successfully treated owing to availability of medicines and health supplies. This was an achievement due to the fact all was handled with success!

III). Periodic project reports were compiled, analyzed and submitted.

Conclusion and Way Forward

There is absolute need for continued mitigation in the problem of malnutrition amongst U5 at Mariallou hospital because of the fact that 410 clients were enrolled into the nutrition program in spite of the challenges in South Sudan.

Thank you to Donors/Benefactors who contributed to the wellbeing of human kind for saving life of so many children who could not survive without their invaluable support.