FINAL REPORT

EVALUATION OF
INTEGRATED MANAGEMENT OF ACUTE MALNUTRITION (IMAM)
&
INFANT AND YOUNG CHILD FEEDING (IYCF) PROGRAMS

21st to 29th of May 2013

Yvonne Grellety – Hélène Schwartz
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A special thanks to Arika Nagata, Joseph Senesie and Hamjatu Daian Khazali who accompanied us in the field and help either with the data collection and/or translation during the mothers support group interviews.

We thank all the partners (ACF, HEDO, SILPA and WHI) for facilitating the evaluation by coming to the field with us and by answering our questions.

Thanks to the Nutrition Division of the Ministry of Health and Sanitation and their staff in the field (District Nutritionists) for the open discussion we had regarding these 2 programs.
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<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACF</td>
<td>Action Contre la Faim</td>
</tr>
<tr>
<td>ACT</td>
<td>Artemisinin-based Combination Therapies</td>
</tr>
<tr>
<td>ARI</td>
<td>Acute Respiratory Infection</td>
</tr>
<tr>
<td>BCC</td>
<td>Behavioural Change Communication</td>
</tr>
<tr>
<td>BFHI</td>
<td>Baby-friendly Hospital Initiative</td>
</tr>
<tr>
<td>BMI</td>
<td>Body Mass Index</td>
</tr>
<tr>
<td>CHC</td>
<td>Community Health Center</td>
</tr>
<tr>
<td>CHO</td>
<td>Community Health Officer</td>
</tr>
<tr>
<td>CHP</td>
<td>Community Health Post</td>
</tr>
<tr>
<td>CHW</td>
<td>Community Health Worker</td>
</tr>
<tr>
<td>CI</td>
<td>Confidence Intervals</td>
</tr>
<tr>
<td>c-IYCF</td>
<td>Community-Infant and Young Child Feeding</td>
</tr>
<tr>
<td>CMAM</td>
<td>Community based Management of Acute Malnutrition</td>
</tr>
<tr>
<td>CMV</td>
<td>Combined Minerals and Vitamins</td>
</tr>
<tr>
<td>CSB</td>
<td>Corn Soya Blend</td>
</tr>
<tr>
<td>CUG</td>
<td>Close User Group</td>
</tr>
<tr>
<td>DHMT</td>
<td>District Health Management Team</td>
</tr>
<tr>
<td>DHS</td>
<td>District Health Sister</td>
</tr>
<tr>
<td>DLO</td>
<td>District Logistic Officer</td>
</tr>
<tr>
<td>DMO</td>
<td>District Medical Officer</td>
</tr>
<tr>
<td>DMS</td>
<td>District Management Store</td>
</tr>
<tr>
<td>DN</td>
<td>District Nutritionist</td>
</tr>
<tr>
<td>DSA</td>
<td>Daily Subsistence Allowance</td>
</tr>
<tr>
<td>EBF</td>
<td>Exclusive Breast Feeding</td>
</tr>
<tr>
<td>EPI</td>
<td>Expanded Programme on Immunization</td>
</tr>
<tr>
<td>F75</td>
<td>Therapeutic Milk for Phase 1</td>
</tr>
<tr>
<td>F100</td>
<td>Therapeutic Milk for Transition Phase</td>
</tr>
<tr>
<td>FP</td>
<td>Family Planning</td>
</tr>
<tr>
<td>GAM</td>
<td>Global Acute Malnutrition</td>
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<tr>
<td>HEDO</td>
<td>Human and Economic Development Organisation</td>
</tr>
<tr>
<td>HIV</td>
<td>Human Immuno-deficiency Virus</td>
</tr>
<tr>
<td>IEC</td>
<td>Information Education Communication</td>
</tr>
<tr>
<td>IMAM</td>
<td>Integrated Management of Acute Malnutrition</td>
</tr>
<tr>
<td>IMCI</td>
<td>Integrated Management of Childhood Illness</td>
</tr>
<tr>
<td>IMNCI</td>
<td>Integrated Management New-born and Childhood Illness</td>
</tr>
<tr>
<td>IP</td>
<td>International Partner</td>
</tr>
<tr>
<td>IPF</td>
<td>Inpatient Facility</td>
</tr>
<tr>
<td>IYCF</td>
<td>Infant and Young Child Feeding</td>
</tr>
<tr>
<td>LMIS</td>
<td>Logistics Management Information System</td>
</tr>
<tr>
<td>MAM</td>
<td>Moderate Acute Malnutrition</td>
</tr>
<tr>
<td>M&amp;E</td>
<td>Monitoring and Evaluation</td>
</tr>
<tr>
<td>MCH</td>
<td>Mother and Child Health</td>
</tr>
<tr>
<td>MCHP</td>
<td>Maternal and Child Health Post</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Description</td>
</tr>
<tr>
<td>--------------</td>
<td>-------------</td>
</tr>
<tr>
<td>MICS</td>
<td>Multiple Indicator Cluster Survey</td>
</tr>
<tr>
<td>MoHS</td>
<td>Ministry of Health and Sanitation</td>
</tr>
<tr>
<td>MSG</td>
<td>Mother Support Group</td>
</tr>
<tr>
<td>MUAC</td>
<td>Mid-Upper Arm Circumference</td>
</tr>
<tr>
<td>NGO</td>
<td>Non-Governmental Organization</td>
</tr>
<tr>
<td>NU</td>
<td>Nutrition Unit</td>
</tr>
<tr>
<td>OJT</td>
<td>On-the Job Training</td>
</tr>
<tr>
<td>OTP</td>
<td>Outpatient Therapeutic Programme</td>
</tr>
<tr>
<td>PCA</td>
<td>Program Cooperation Agreement</td>
</tr>
<tr>
<td>PHU</td>
<td>Peripheral Health Unit</td>
</tr>
<tr>
<td>PWLM</td>
<td>Pregnant Women and Lactating Mother</td>
</tr>
<tr>
<td>PMTCT</td>
<td>Prevention of Maternal To Child Transmission</td>
</tr>
<tr>
<td>REACH</td>
<td>Reinforce efforts to address child malnutrition</td>
</tr>
<tr>
<td>RUTF</td>
<td>Ready to Use Therapeutic Food</td>
</tr>
<tr>
<td>SAM</td>
<td>Severe Acute Malnutrition</td>
</tr>
<tr>
<td>SC</td>
<td>Stabilization Center</td>
</tr>
<tr>
<td>SECHN</td>
<td>State Enrolled Community Health Nursing</td>
</tr>
<tr>
<td>SFP</td>
<td>Supplementary Feeding Programme</td>
</tr>
<tr>
<td>SMART</td>
<td>Standardized Monitoring and Assessment of Relief and Transitions</td>
</tr>
<tr>
<td>SNAP</td>
<td>Sustainable Nutrition and Agriculture Promotion</td>
</tr>
<tr>
<td>SST</td>
<td>Supplemental Suckling Technique</td>
</tr>
<tr>
<td>SUN</td>
<td>Scaling-Up Nutrition</td>
</tr>
<tr>
<td>TB</td>
<td>Tuberculosis</td>
</tr>
<tr>
<td>TOC</td>
<td>Training of Counsellor</td>
</tr>
<tr>
<td>TOF</td>
<td>Training of Facilitator</td>
</tr>
<tr>
<td>TOT</td>
<td>Training of Trainer</td>
</tr>
<tr>
<td>UNICEF</td>
<td>The United Nations Children’s Fund</td>
</tr>
<tr>
<td>WCARO</td>
<td>West and Central Africa Regional Office</td>
</tr>
<tr>
<td>WFP</td>
<td>World Food Programme</td>
</tr>
<tr>
<td>WH</td>
<td>Weight for Height</td>
</tr>
<tr>
<td>WHI</td>
<td>World Hope International</td>
</tr>
<tr>
<td>WHO</td>
<td>World Health Organisation</td>
</tr>
<tr>
<td>WHZ</td>
<td>Weight for Height Z-score</td>
</tr>
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</table>
I. INTRODUCTION

The Republic of Sierra Leone is divided into four administrative regions: the Northern Province, Eastern Province, Southern Province and the Western Area; which are subdivided into fourteen districts (including Western Area Urban and Western Area Rural); which are themselves divided into 149 chiefdoms.

UNICEF Sierra Leone has promoted the participation of NGOs in the implementation of development programmes in the country. Since 2009, UNICEF supported the Ministry of Health and Sanitation in Sierra Leone to scale-up high impact nutrition interventions in the country. Given the nature and constraints of governmental Human Resource the involvement of NGOs was crucial if the scale-up was to be a success. Since 2009, UNICEF has engaged 14 NGOs across the country and provided over USD 3,700,000 to partners to implement nutrition projects [1].

Since 2009, Infant and Young Child Feeding (IYCF) and Integrated Management of Acute Malnutrition activities (IMAM) activities are part of a single package promoted by UNICEF and partners in all districts.

An evaluation of the IMAM program was conducted in March 2010 [2] followed by a review of the existing comprehensive framework for large scale promotion of adequate IYCF practices in Sierra Leone in May 2010 [3]. These evaluation / review provided recommendations to improve both IMAM and IYCF programs, in terms of implementation and scaling-up.

The main purpose of the current evaluation is:

- To identify and understand the achievements and constraints of the UNICEF funded Nutrition programme including the challenges faced by the implementing partners
- To assess the quality, effectiveness and sustainability of the programmes funded by UNICEF and implemented by partners.

As the evaluation looked at the IMAM and IYCF programs separately, the findings are reported separately.

II. BACKGROUND

II.1 Organisation of the health sector

The health sector is based on a decentralized system, with representatives at national, regional, district and community level.

The ministry of Health and Sanitation is divided in to two wings: the professional wing headed by the Director General of Medical Services and the administrative wing headed by the Director General of Management Services. Under the Director General of Medical Services, there are five technical divisional directorates responsible of technical guidance. IMAM and IYCF programs are under the Primary Health Care Directorate as illustrated in the organogram below:
Figure 1 – Organogram of the Ministry of Health and Sanitation

The central level is responsible for development of health policy, strategic plans and formulation of guidelines. It is responsible for resource mobilization, supervision, monitoring and evaluation of health services.

There are 14 health districts in the country; each of them is run by a District Health Management Team (DHMT). The DHMT under the leadership of the District Medical Officer (DMO) is responsible for the planning, organization, management, implementation, monitoring and supervision of health programmes in the district (with the exception of hospital and laboratory services). The DHMT is composed of: 1 DMO, 1 District Health Sister, 1 District Nutritionist, 1 Environmental Health officer, 1 WASH officer, 1 M&E officer, 1 Disease Surveillance officer and 1 Community Mobilisation officer.

In each district hospital is a Hospital Management Committee headed by either the Medical Superintendent in the case of regional/provincial hospital or by the Medical Officer-in-charge in the case of a district hospital.

At the community level, Peripheral Health Units (PHU) such as Maternal and Child Health Posts (MCHPs), Community Health Posts (CHPs) and Community Health Centres (CHCs) are responsible for the delivery of primary health care in those communities. The CHCs are headed by Community Health Officers, who also supervise all health activities at the MCHPs and CHPs. In total there are 1,200 PHUs countrywide.
**II.2 Nutrition situation**

A national nutrition survey was done from June to August 2010 based on SMART methodology and showing 7.6% GAM (7.0 to 8.1% CI) and 1.7% SAM (1.4 to 2% CI) for a population of 5,746,800 (17.7% represented by the less than 5yrs). If the survey is correct, this indicates between 71,000 and 82,000 children with GAM and 14,000 to 20,000 children with SAM.

A coverage survey was done by Valid International from February to April 2011. Only 3 out of the 14 districts surveyed achieved moderate coverage classification of point coverage: these were the districts of Kenema, Pujehun and Bo. For period coverage, half of the districts reached moderate coverage (Bombali, Kono, Kenema, Bonthe, Pujehun, Bo, Western Area Rural). However scaling up was the aim of the IMAM programme in Sierra Leone in order to respond to the call for rapid scaling up as the advocated way forward (see paragraph scaling up).

**II.3 IMAM Protocol**

The first attempts to create a national protocol for Management of Acute Malnutrition started in 2006. At the end of 2007, the protocol was finally validated and an agreement to use ready to use product was undertaken by the Ministry of Health, for in and out-patient treatment. This protocol was then revised in 2010 in order to incorporate the new WHO growth standards. This version was reviewed by the evaluation team as part of the preparation of the evaluation. Here below are the main comments:

The topics are addressed in an appropriate order but the chapter on “monitoring and evaluation” is missing and Regional recommendations given in the Dakar Report [4] are ignored. Even though the chapters are well organised the protocol has been edited to introduce numerous contradictions and incoherencies throughout the protocol.

In terms of moderately malnourished children, it is recommended that they attend a Supplementary Feeding Programme in a health centre; however, this often overloads the work of the health team unnecessarily; the appetite test as well as a CMAM number should not be recommended for this group of children - it is not clear if both WHZ and MUAC criteria should be used or not for admission. BMI for MAM in adults is very difficult to take and MUAC should be preferably used. A weekly ration is recommended, which again overburdens staff, instead of fortnightly. Iron and folate is recommended to be given daily instead of weekly – there is already quite a high dose of both iron and folate in the CSB. The target weight-gain table as a criterion for discharge should not be used for SAM and was never used for MAM children. MAM children should not be referred to the SC but to the paediatric ward and the IMCI protocols should be used to treat these children. This section of the protocol needs to be completely revised.

In the chapter “OTP”, it seems that the protocol only admits children from 6 to 59 months of age; this should not be the case. SAM patients of all ages should be treated, it would be unethical to refuse treatment to a 6 year old child for example –This is in particularly the case for severely wasted HIV patients. The appetite test is not precise enough to check for failure to respond to treatment and the other criteria should be routinely checked. Two hundred kilocalories per kg per day is an excessively high daily ration to dispense, this encourages sharing and as the average gain of weight for the cured patients is only 4 to 5 g/kg /day we know that their intake is at most 125 kcal/kg/d (see chapter “Evaluation Findings”, p.25) which is not a lot compare to the number of sachets per week given. One hundred and seventy kcal per kg per day is perfectly adequate and will save a considerable amount of RUTF (see IMAM generic protocol,
version 2011) - this recommendation was made in 2010 during evaluation mission conducted by WCARO, but was either ignored or not accepted. The height should not be taken weekly. For routine treatment in OTP, very high dose of Vitamin A is no longer recommended for SAM children and should not be given for persistent diarrhoea – there is sufficient vitamin A incorporated in the RUTF, F75 and F100. Chloramphenicol should not be used as a second line antibiotic treatment in OTP. Indeed, children who need second or third-line antibiotics should be transferred to IPF (SC) and not kept in OTP. For the criteria of discharge, it is not clear if MUAC or WHZ or both are needed. Where MUAC is used a cut-off of >=115mm is far too low as a unique criteria of discharge and will result in large numbers of relapses.

In the IPF (SC) section of the 2011 protocol, it is recommended to take weight and height twice a day! This is absolutely wrong. Height should only be taken one during the whole of the admission and weight once per day. The MUAC criteria for admission of adults is inappropriately high (it is wrong). The number of feeds in Phase 1 is limited to 6 feeds per day however some children need more than six feeds (in particular patients with refeeding diarrhoea) and this needs to be added in the protocol. The Phase 2/rehabilitation phase section of the protocol can be put in the annex as it is now rarely used, the patient being transferred to the OTP at the end of transition phase. The recipes in the annexes for F75 & F100 are wrong in terms of scoops of CMV: this is very dangerous - it is not 2 but ½ scoop per litre of reconstituted milk. The section on “complications” is a straight “copy and paste of an outdated version of Pr. Michael Golden’s protocol”; this has been substantially revised and updated and made available to both UNICEF and the Government of Sierra Leone, this is not referenced and the concepts are omitted entirely. The antibiotic treatment needs to be totally revised and additional common complications added. The chapter on infections does not take into account the problem of SAM children. For the criteria of transfer from phase 1 to transition, the patient should not be still on treatment of complications. Children less than 6 months old chapter is again a straight copy-paste of an outdated version of Pr Michael Golden’s protocol and needs to be updated.

Conclusion: It is unclear why the protocol has been edited to introduce numerous mistakes, many of which are confusing and some dangerous. Clearly the protocol needs to be revised urgently, no more staff should be taught this protocol and scale-up should only be attempted after there is up-to-date protocol and clear, unequivocal teaching materials available. The criteria of discharge for SAM children are dangerously low and are far below all recommendations made by expert bodies (generic protocol and WHO); the treatment of SAM in the OTP should not be strictly reserved for 6 to 59 months old children but for all malnourished patients over 6 months of age. The antibiotics treatment in SC needs urgently to be revised1.

II.4 Infant and Young Child Feeding (IYCF)

The IYCF programming guide [5] developed by the Nutrition Section of UNICEF New York in 2011 mentions that a comprehensive approach to IYCF involves large-scale action at national level, health system and community levels, including various cross-cutting strategies such as communication and actions on infant feeding in the context of emergencies and HIV.

1 In addition to the protocol, an abbreviated manual is used for the training of the OTP: this manual has many different versions with edits. I was not able to check which was the latest one. Changes were made several times. This only serves to cause confusion among the trainers and trainees. The existing manuals need to be revised and a single up-dated and correct manual distributed.
The government of Sierra Leone developed a National Guideline and Strategy on IYCF in 2009 that recognizes and adopts the key elements of the Global Strategy on IYCF, the World Health Assembly's Innocenti Declaration for the Protection, Promotion and Support of Breastfeeding, and the International Code of the Marketing of Breast Milk Substitutes (BMS) [6]. However, this document still needs to be completed, updated and an action plan developed to operationalize this strategy. IYCF is also mentioned in the Food and Nutrition Policy and Implementation Plan both documents developed in August 2009.

Regarding the health system level, lactation management training based on the Ten Steps of the Baby Friendly Hospital Initiative (BFHI) and on establishing breastfeeding has been conducted in hospital and PHU level; but, without a strong monitoring and evaluation system in place, this initiative has been barely sustained.

In parallel, IYCF has been strengthened at community level where mother support groups have been formed and trained first on BCC approaches and in a second time on c-IYCF counselling methods.

In 2010-2011, UNICEF New York conducted a comprehensive IYCF situation assessment in 65 countries [7] that focused on 7 areas: National level IYCF actions, Health services IYCF actions, Community level IYCF actions, Communication on IYCF, Complementary feeding interventions/components, IYCF in exceptionally difficult circumstances and IYCF monitoring and evaluation. Each action areas were scored based on performance and scores ranged from 0 to 10. The scores for Sierra Leone are summarized in the table below:

<table>
<thead>
<tr>
<th>Areas</th>
<th>Score (/10)</th>
<th>Qualitative results²</th>
</tr>
</thead>
<tbody>
<tr>
<td>National level IYCF actions</td>
<td>6</td>
<td>Fair</td>
</tr>
<tr>
<td>Health services IYCF actions</td>
<td>2</td>
<td>Poor</td>
</tr>
<tr>
<td>Community level IYCF actions</td>
<td>6</td>
<td>Fair</td>
</tr>
<tr>
<td>Communication on IYCF</td>
<td>6</td>
<td>Fair</td>
</tr>
<tr>
<td>Complementary feeding interventions</td>
<td>2</td>
<td>Poor</td>
</tr>
<tr>
<td>IYCF in difficult circumstances</td>
<td>5</td>
<td>Fair</td>
</tr>
<tr>
<td>IYCF monitoring and evaluation</td>
<td>4</td>
<td>Fair</td>
</tr>
</tbody>
</table>

While most of the areas need to be strengthened, it was stated that a special attention should be put on the health services level and on complementary feeding interventions.

² Colour scale interpreted as follows: Red = 0-3 ("Poor" – very low number of key IYCF actions implemented); Orange = 4-6 ("Fair" – low number of key IYCF actions implemented; Green = 7-8 ("Good" - average number of key IYCF actions implemented); Purple = 9-10 ("Very good" – High number of key IYCF actions implemented).
III. SCALE-UP

III.1 Integrated Management of Acute Malnutrition

Table 2 shows the scaling up by year since December 2007, beginning of the integration of IMAM in the health structures. In June 2013, 50% of the health structures were offering IMAM services.

Table 2 – Number of health structures offering IMAM services (Scale up) by district and year, SL, the number of patients treated and the use of RUTF per patient steps of implementation (source UNICEF SL)

<table>
<thead>
<tr>
<th>Districts</th>
<th>PHUs</th>
<th>Dec 07</th>
<th>Dec 08</th>
<th>Dec 09</th>
<th>Dec 10</th>
<th>Dec 11</th>
<th>Dec 12</th>
<th>May 13</th>
<th>June 13</th>
<th>Coverage OTP/PHU</th>
</tr>
</thead>
<tbody>
<tr>
<td>BO</td>
<td>117</td>
<td>0</td>
<td>5</td>
<td>12</td>
<td>21</td>
<td>21</td>
<td>21</td>
<td>21</td>
<td>58</td>
<td>49.57%</td>
</tr>
<tr>
<td>BOMBALI</td>
<td>101</td>
<td>5</td>
<td>5</td>
<td>11</td>
<td>21</td>
<td>21</td>
<td>21</td>
<td>21</td>
<td>51</td>
<td>50.5%</td>
</tr>
<tr>
<td>BONTHE</td>
<td>56</td>
<td>0</td>
<td>5</td>
<td>7</td>
<td>17</td>
<td>17</td>
<td>28</td>
<td>28</td>
<td>28</td>
<td>50%</td>
</tr>
<tr>
<td>KAILAHUN</td>
<td>79</td>
<td>0</td>
<td>5</td>
<td>7</td>
<td>7</td>
<td>14</td>
<td>14</td>
<td>14</td>
<td>40</td>
<td>50.635%</td>
</tr>
<tr>
<td>KAMBIA</td>
<td>65</td>
<td>5</td>
<td>5</td>
<td>7</td>
<td>10</td>
<td>10</td>
<td>34</td>
<td>34</td>
<td>34</td>
<td>52.5%</td>
</tr>
<tr>
<td>KENEMA</td>
<td>121</td>
<td>0</td>
<td>5</td>
<td>9</td>
<td>20</td>
<td>20</td>
<td>61</td>
<td>61</td>
<td>61</td>
<td>50.41%</td>
</tr>
<tr>
<td>KOINADUGU</td>
<td>68</td>
<td>0</td>
<td>5</td>
<td>7</td>
<td>15</td>
<td>15</td>
<td>34</td>
<td>34</td>
<td>34</td>
<td>50%</td>
</tr>
<tr>
<td>KONO</td>
<td>84</td>
<td>0</td>
<td>5</td>
<td>7</td>
<td>11</td>
<td>17</td>
<td>17</td>
<td>17</td>
<td>32</td>
<td>38.1%</td>
</tr>
<tr>
<td>MOYAMBA</td>
<td>94</td>
<td>0</td>
<td>5</td>
<td>7</td>
<td>15</td>
<td>15</td>
<td>40</td>
<td>40</td>
<td>49</td>
<td>52.13%</td>
</tr>
<tr>
<td>PORT LOKO</td>
<td>102</td>
<td>0</td>
<td>5</td>
<td>7</td>
<td>15</td>
<td>15</td>
<td>52</td>
<td>52</td>
<td>52</td>
<td>50.98%</td>
</tr>
<tr>
<td>PUDJEHUN</td>
<td>71</td>
<td>0</td>
<td>5</td>
<td>7</td>
<td>13</td>
<td>13</td>
<td>34</td>
<td>34</td>
<td>34</td>
<td>48%</td>
</tr>
<tr>
<td>TONKOLILI</td>
<td>96</td>
<td>5</td>
<td>5</td>
<td>10</td>
<td>16</td>
<td>16</td>
<td>16</td>
<td>48</td>
<td>50%</td>
<td></td>
</tr>
<tr>
<td>WESTERN AREA</td>
<td>105</td>
<td>5</td>
<td>5</td>
<td>7</td>
<td>33</td>
<td>41</td>
<td>53</td>
<td>53</td>
<td>53</td>
<td>50.48%</td>
</tr>
<tr>
<td>TOTAL structures</td>
<td>1159</td>
<td>20</td>
<td>65</td>
<td>105</td>
<td>214</td>
<td>235</td>
<td>425</td>
<td>425</td>
<td>574</td>
<td>49.53%</td>
</tr>
<tr>
<td>TOTAL reported patients</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>27,796 15,853* 33,753**</td>
</tr>
<tr>
<td>RUTF procurement in carton</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>21,200 37,312 11,606</td>
</tr>
</tbody>
</table>

*program only functional for 6 months
**monthly reports underreported

If the monthly reports database in 2010 was almost completed with the total number of treated patients, in 2011 the IMAM program was suspended for a period of 6 months. In 2012, the number of OTPs increased and also to scaling up; however the total number of patients\(^3\) were underreported in the database due to missing monthly reports. Only the 2010 database can be used for further calculation. In 2010, about 0.76 carton of RUTF was used for each child treated, which is approximately the expected usage. For year 2011 and 2012, it is impossible to calculate the consumption of RUTF due to the incomplete database 2012

\(^3\) database 2012
monthly reports’ database. To be able to accurately be aware of monthly reports missing, columns within the database should be added: observed monthly reports - expected monthly reports - date of opening of the centre, RUTF stock in – RUTF stock out – RUTF balance.

A verification exercise followed by verification of OTP caseloads took place in 2012 – 2013 in order to improve the quality of the programme. Conducted by the MOH and UNICEF, it was done by students trained for a period of 2 days and supervised by higher grades colleagues. The students participated in the training with the field work and then took a test; each district had a different test. Surprisingly in Moyamba UNICEF requested ACF to conduct their own verification and they came up with 20% cases that were not supposed to be in the programme.

After this exercise in 2012, the amount delivered was cut by half due to the results of verification only in the month after the verification. For the other month it was based on report from DNs which indicated lower numbers than the request. This resulted in frequent stock-outs, due both to the reduction in numbers as a result of verification but break in supply pipeline, inappropriate allocation by health staff which lead providing small amounts to cases and late reporting. These interruptions of the program lead to a totally inadequate amount of RUTF dispensed per treatment.

A training of the District Nutritionists in 2012 was conducted by Valid International (Anne Walsh) in order to train them on how to make a projection of consumption. On-the-job training was recommended in 2012 except when new centres are opened (scaling up). The help of UNICEF for the scaling up training is of great help for the concerned districts.

III.2 Infant and Young Child Feeding

a. Formation of the Mother Support Groups

Up to now, the way IYCF was implemented in Sierra Leone, do focus mainly on the community level and not so much on the health facility level, due to a training ban in 2012 from the Minister of Health putting on hold the training of the health workers. This is the reason why the steps described below are referring mainly to the community level.

In October 2009, the implementation of IYCF activities started in 12 districts. These activities focused mainly on the community level with the training of at least three mother support groups per chiefdom. The training package included training on BCC approaches and training on BCC for various topics related to nutrition, hygiene, diarrhoea and social aspects such as gender but did not include the IYCF counselling package.

The training has then been expended to all districts in Sierra Leone and by December 2010 a total of 9 mother support groups per chiefdom were formed [3]. In 2012, the IYCF counselling package was introduced to all MSG. In 2013, the plan is to scale-up the MSG nationally by having one MSG per villages. This has already started in Moyamba district where 1429 MSG were trained. The steps followed to form and train the mother support groups are summarized in the figure below:

Figure 2 – Steps followed to form and train the mother support groups
b. Community-IYCF training

In 2011, 4 UNICEF staff and 2 MoHS staff participated to a Master training on c-IYCF counselling in Nigeria and Zimbabwe and formed a group of Master Trainers for Sierra Leone. Following this training, the group organized a Training of Trainers for 24 participants (1 nutritionist and 1 supervisor per NGO and 1 MOHS IYCF focal person) in Freetown.

In 2012, these trainers, after having exercised their counselling skills during field practice have trained 132 facilitators (9 monitors and 3 supervisors per NGO and 1 DHMT nutritionist per district) under the supervision of the master trainers. In August 2012, the facilitators trained 18 members of the mother support groups on c-IYCF counselling skills in each of the following districts: Kono, Kenema, Kambia and Bombali. Another session of training took place in September in the remaining districts except in Bo and Bonthe districts.

By end of October 2013, all formed mother support groups should have at least 2 members trained on c-IYCF counselling package, meaning 2,700 counsellors in total for the country.

The trained members of the mother support groups have to realise 10 counselling sessions under the supervision of the monitor/facilitator before being able to train the rest of the group on c-IYCF counselling package. The counselling cards are distributed only to trained members.

The IYCF cascade training is illustrated below:
In addition, CHW and the members of the MSG (in certain districts) have been trained to conduct active screening of malnourished children in the community, either by organizing a screening session or during home visits.

UNICEF and implementing partners are also planning in the coming months to train the health workers of each PHU on the c-IYCF counselling package.

As mentioned earlier, lactation management training based on the Ten Steps of the Baby Friendly Hospital Initiative (BFHI) and on establishing breastfeeding has been conducted in PHU level in 2009 but was not sustained, mainly because of the vertical approach of this activity, UNICEF leading the process. Consequently, this activity was not recognized by the MoHS as such and as soon as UNICEF stopped its monitoring, the activity ceased.

To revive this part of the IYCF comprehensive strategy, plans have been set up to train graduated nurses on IYCF and deploy them to the hospitals, with their main task (60%) being to focus on BFHI.

IV. METHODOLOGY

IV.1 Methods used

The UNICEF Sierra Leone office requested the support of WCARO to conduct an evaluation of the IMAM and IYCF programs. The evaluation used a combination of methods, detailed in the table below:

Table 3 – Methods used for data collection
The literature review included national documents including the nutrition policy, strategy and implementation plans and documents held by the UNICEF Country Office. The interviews and observations were done directly in the field and allowed us to triangulate these data with those obtained from the literature review and the analysis of the quantitative data.

**IV.2 Execution of the mission**

**a. Selection of the districts for evaluation**

The districts were selected by UNICEF Sierra Leone, based on the level of scale-up for both IMAM and IYCF activities, the presence or not of an implementing partner with a signed PCA with UNICEF and community activities on-going until April 2013.

In addition to the health facilities included in this evaluation, one SC and one OTP were also visited in Freetown.

The table 4 present the IMAM and IYCF characteristics of the districts visited.

<table>
<thead>
<tr>
<th>IMAM</th>
<th>Number of chiefdoms</th>
<th>Number of PHU</th>
<th>Number of OTP</th>
<th>Number of SC</th>
<th>Number of SFP</th>
<th>OTP Geographical Coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moyamba</td>
<td>14</td>
<td>98</td>
<td>40</td>
<td>1</td>
<td>49</td>
<td>50%</td>
</tr>
<tr>
<td>Kenema</td>
<td>16</td>
<td>121</td>
<td>61</td>
<td>2</td>
<td>121</td>
<td>50%</td>
</tr>
<tr>
<td>Bombali</td>
<td>13</td>
<td>101</td>
<td>23</td>
<td>3</td>
<td>0</td>
<td>20%</td>
</tr>
<tr>
<td>Kono</td>
<td>14</td>
<td>84</td>
<td>17</td>
<td>1</td>
<td>5</td>
<td>20%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>IYCF</th>
<th>Number of chiefdoms</th>
<th>Number of MSG trained</th>
<th>Number of Community Screeners</th>
<th>Number of supervisors</th>
<th>Number of field monitors</th>
<th>IYCF Scale-up (MSG)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moyamba</td>
<td>14</td>
<td>1429</td>
<td>400</td>
<td>4</td>
<td>28</td>
<td>100%</td>
</tr>
<tr>
<td>Kenema</td>
<td>16</td>
<td>144</td>
<td>1120</td>
<td>4</td>
<td>16</td>
<td>&lt;20%</td>
</tr>
<tr>
<td>Bombali</td>
<td>13</td>
<td>130</td>
<td>500</td>
<td>3</td>
<td>10</td>
<td>&lt;20%</td>
</tr>
<tr>
<td>Kono</td>
<td>14</td>
<td>144</td>
<td>560</td>
<td>5</td>
<td>16</td>
<td>&lt;20%</td>
</tr>
</tbody>
</table>

Both IMAM and IYCF activities started in 2008-2009 with the support of an implementing partner. Each implementing partner covers an entire district and implements both activities, with an exception for Moyamba district.

The table below gathered the implementing partners involved in this evaluation and give information on the starting and ending date of the PCA with UNICEF:

<table>
<thead>
<tr>
<th>Qualitative methods</th>
<th>Quantitative methods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Literature review</td>
<td>Analysis of existing quantitative data (database)</td>
</tr>
<tr>
<td>Individual interview</td>
<td></td>
</tr>
<tr>
<td>Mother Support Group interview</td>
<td></td>
</tr>
<tr>
<td>Observation</td>
<td></td>
</tr>
</tbody>
</table>
b. Selection of the health facilities

The selection of the health facilities was done by UNICEF together with the district nutritionists and implementing partners, depending on the day of evaluation visit and days which OTP was operational. If no OTP was working in the district on the day of the visit, the evaluation team focused on checking the charts, the knowledge of the officer-in-charge or nurse-aid and the stock of the nutrition products and materials. We particularly visited PHU and MSG in both hard to reach areas and easy to reach areas.

The number of health centres with OTP activities, Stabilisation Centres (SC) and community members visited is summarized in the table below:

<table>
<thead>
<tr>
<th>IP</th>
<th>Supporting IMAM</th>
<th>Supporting IYCF</th>
<th>Started</th>
<th>End of PCA with UNICEF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moyamba</td>
<td>ACF</td>
<td>CAUSE-Canada</td>
<td>2008</td>
<td>Dec 2013</td>
</tr>
<tr>
<td>Kenema</td>
<td>HEDO</td>
<td>HEDO</td>
<td>2009</td>
<td>Apr 2013</td>
</tr>
<tr>
<td>Bombali</td>
<td>WHI</td>
<td>WHI</td>
<td>2009</td>
<td>Apr 2013</td>
</tr>
<tr>
<td>Kono</td>
<td>SILPA</td>
<td>SILPA</td>
<td>2009</td>
<td>Apr 2013</td>
</tr>
</tbody>
</table>

Table 6 – Number of health facilities and community members visited

<table>
<thead>
<tr>
<th></th>
<th>Number of OTP visited</th>
<th>OTP activities the day of the visit</th>
<th>Number of SC visited</th>
<th>Number of MSG interviewed</th>
<th>Number of Community Screeners interviewed</th>
<th>Number of community members interviewed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moyamba</td>
<td>4</td>
<td>4</td>
<td>1</td>
<td>6</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Kenema</td>
<td>4</td>
<td>4</td>
<td>2</td>
<td>4</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Bombali</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Kono</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>7</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

c. Organization of the mission

The mission lasted 14 days, from the 19th of May to the 1st of June. The two first days were dedicated to the literature review and briefing sessions with UNICEF staff and partners supporting the four selected districts. The evaluation team met with ACF, CAUSE-Canada, HEDO and WHI; SILPA was not present. The meeting focused mainly on activities, opportunities, challenges and constraints faced by the implementing partner.

The field visit lasted 9 days, starting on the 21st of May. In each district visited, the evaluation team first met with the DMO and/or the District Nutritionist to collect general information on the implementation of the activities and the constraints and challenges faced by the district level.

Due to the short period of time allocated for the field visit and the specific expertise of the evaluation team members, it was decided to split the evaluation team into two, each team focusing on one component of the evaluation:

- Team 1 composed of Yvonne Grellety (Nutrition Consultant, expert in IMAM), Arika Nagata (Nutrition Specialist – UNICEF Sierra Leone) and Joseph Senesie (Nutrition Officer – UNICEF Sierra Leone) focused on the IMAM activities
• Team 2 composed of Hélène Schwartz (Nutrition Specialist – IYCF Regional Focal Point UNICEF WCARO) and Hamjatu Daian Khazali (Nutrition officer – UNICEF Sierra Leone) focused on the IYCF activities and in particular the community component.

However, in order to cover the four districts and bearing in mind that the link between the two activities is crucial, the evaluation team visited two districts together (Moyamba and Kenema) and then split so the team 1 went to Bombali while the team 2 went to Kono. The calendar of the mission is detailed in Annex 1.

In each district, the evaluation team was accompanied by the District Nutritionist and the IP.

For the interview, the evaluation team completed specific questionnaires for each activity assessed (see Annex 2), as described below:

- DHMT: Programme questionnaire for the District Nutritionist
- IMAM: 1) OTP questionnaire for the out patients’ management, 2) SC questionnaire for in-patient care,
- IYCF: 1) Mother support groups questionnaire, 2) Community Screener questionnaire.

Due to logistic and organizational reasons, the health facilities, the mother support groups and community members were informed in advance of the evaluation visit.

For the interviews at community level, questions were asked in English and translated in the local language by the UNICEF Nutrition Officer. Answers were written directly onto the questionnaire forms.

**IV.3 Constraints**

The short period of time in the fields and the lack of prepared documents concerning the IMAM programme slowed down the whole process.

The evaluation took place in 2 of the 3 districts visited in 2010; Moyamba had not been evaluated before. One OTP and three SCs were previously visited in Kenema district and Freetown.

The OTPs were chosen because of the day they were open. This allowed us to see them functioning but it was also difficult to question the supervisors who were busy with patients; this slowed the evaluation process.

The SFP programme had to be limited to the ex-SAM follow-up in 2 of the 3 districts and it was never the SFP day during our visit. There was no SFP in Bombali.

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4 The IMAM questionnaires used were based on the supervision checklists developed in the IMAM generic protocol. This was done on purpose in order to field test these checklists
5 The 2 verification reports, the audit report, the training material for the District Nutritionist, the latest edition of the IMAM abbreviated manual
V. EVALUATION FINDINGS

Since 2009, UNICEF supported the Ministry of Health and Sanitation in Sierra Leone to scale-up high impact nutrition interventions in the country. Implementing partners were involved in the scaling-up of IMAM and IYCF activities since the beginning but due to funding constraints, UNICEF Sierra Leone stopped the partnership with most of the NGOs in April 2013. This will certainly have a significant impact on the programs, but it is too early now to assess the magnitude of this impact.

In this part of the report, we will try to answer the questions raised in the ToR namely achievements, constraints and challenges faced by the IP on one hand and quality, effectiveness and sustainability of these activities on the other hand.

V.1 Implementing partners

The implementing partners in the 4 districts visited are namely: ACF and CAUSE-Canada (Moyamba district), HEDO (Kenema district), WHI (Bombali district) and SILPA (Kono district).

As mentioned earlier, each partner covers an entire district for both IMAM and IYCF activities with an exception in Moyamba district where two implementing partners are working together. Up to December 2012, ACF was in charge of the IMAM activities and CAUSE-Canada of the IYCF activities including the community screening. However, following a SQUEAC survey showing low coverage rate of the IMAM, CAUSE-Canada handed over the screening activities to ACF.

a. Activities

The five implementing partners for IMAM and IYCF (ACF, CAUSE-Canada, HEDO, SILPA and WHI) started their support to the nutrition activities in 2009.

The expected results of the cooperation stated in the last PCA are:

1. Increased coverage of community mobilization activities with special emphasis on hard to reach communities
2. Increased quality of OTP services as per national standards in XX PHUs with OTPs in the targeted district
3. Increased MSG capacity of IYCF counselling for mothers with children under two years
4. Increased community involvement in the promotion of exclusive breastfeeding and appropriate complementary feeding practices
5. Support to the MOHS routine MCH week campaigns and world breastfeeding week activities

To reach these goals, the IP implemented several activities both at community and health facility level. The table below lists the principal activities implemented.

<table>
<thead>
<tr>
<th>Table 7 – Activities implemented by each partner</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACF</td>
</tr>
<tr>
<td>OTP supervision</td>
</tr>
<tr>
<td>Transport/voucher for transfer</td>
</tr>
<tr>
<td>End-user monitoring of RUTF</td>
</tr>
</tbody>
</table>
Organize and facilitate training for the MSG (2 members by group)  ✔ ✔ ✔ ✔ ✔
Facilitate MSG meeting  ✔ ✔ ✔ ✔ ✔
Monitor counselling sessions during home-visits  ✔ ✔ ✔ ✔ ✔
Food demonstration  ✔ ✔ ✔ ✔ ✔
Backyard gardening  ✔ ✔ ✔ ✔ ✔
Provision of seeds  ✔ ✔ ✔ ✔ ✔
Village or group saving loans  ✔ ✔ ✔ ✔ ✔
Monitoring of the community screeners  ✔ ✔ ✔ ✔ ✔
Screening of SAM done by the MSG members  ✔ ✔ ✔ ✔ ✔
Soap making  ✔ ✔ ✔ ✔ ✔
Provide IYCF counselling during school visits  ✔ ✔ ✔ ✔ ✔

From this table, we can notice three main differences between the 5 implementing partners’ strategy:

- As mentioned previously, CAUSE-Canada is not involved in the IMAM activities. The monitoring of the OTPs and the community screeners is done by the IMAM implementing partner (ACF).
- SILPA has started to train some MSG on income generating activities like soap making which allows the MSG members to sell the soap and/or use it for hygiene sensitisation sessions.
- Both CAUSE-Canada and SILPA are involved in school sensitisation sessions on IYCF targeting the teenage mothers and fathers in the secondary schools.

In term of community screening, each implementing partner supervises several hundred of community screeners. Those are all volunteers and are asked to conduct active screening on a quarterly basis. Except in Moyamba district, most of the community screeners are part of the MSG (in communities where there is a MSG) and therefore benefit from the activities in place in the group.

From the interviews conducted in the field, it appeared that having one partner supervising the community screening and another one supporting the MSG is not ideal in term of strengthening the link between the community and the health facilities. Four MSG out of six interviewed in Moyamba district did not know the existence of the community screeners while in the other districts the community screeners if not part of the MSG were at least known by the MSG members. The role of the community screener is fundamental to ensure that malnourished children detected in the community are referred to the nearest PHU and followed by the MSG.

To extend the sensitisation on adequate nutrition practices in the secondary schools is a huge opportunity to sensitize adolescents on the importance of good feeding, especially in districts where teenage pregnancy is high (Moyamba and Kono district are one of them). This strategy should certainly be extended to all districts.
In term of **monitoring**, each partner has a nutritionist dedicated on monitoring and supportive training of the health staff responsible of the OTP activities. One of their roles is also to supervise the supply chain, making sure that the requested quantity of RUTF and drugs are delivered at the district level and on to the health facility level. They also have 1 IYCF monitor per chiefdom based at community level and at least 1 IYCF supervisor covering 4 chiefdoms. Apart from collecting the community screeners’ report, the monitors are reporting on 11 indicators on a monthly basis. The indicators are listed in the Annex 3.

The monitors are responsible of participating to the MSG meeting at least once a month, facilitating group sessions and supervising the community screeners’ activity. The number of the MSG meetings varies from one to four meetings per month, depending entirely on group’s decision. This close monitoring which seems heavy for the IP is **key** for the success of the MSG activities. When looking at the MSG formed in 2009 in Kono district (these MSG were the most advanced in term of group management) intensive monitoring activities are needed on at least 4 to 5 years before the MSG starts to be autonomous.

Besides the monitoring done by the IP, UNICEF Sierra Leone has started to implement decentralized monitoring for nutrition activities by conducting a baseline (beginning of the UNICEF PCA) and an endline (end of the UNICEF PCA) survey using rapid evaluation methodology [8]. It allows following the IMAM and IYCF indicators’ evolution on a yearly basis and having an estimate of the program’s coverage. This tool was elaborated and used for the first time in 2012, it is therefore a bit early to evaluate it but it can certainly be used to re-orientate the activities if needed privileging those that do not positively evolve. It is an interesting tool that would deserve to be evaluated after a longer period of use.

**Recommendations for UNICEF and IP:**

- Community screeners should be part of the MSG and monitored by the IYCF implementing partner
- Extend the IYCF sensitization to secondary schools in all districts
- Exploit further the decentralized monitoring tool

**Recommendations for IP:**

- Keep doing intensive monitoring of the MSG and community screeners
- Decrease the intensity of the monitoring for those who acquired good group management skills and train new ones (based on demand)

**b. Constraints**

When interviewing the implementing partners, the main constrain for them is the **lack of transport** especially for the IYCF monitors. On average a monitor is responsible of 9 MSG and even more in districts where the IYCF activities were scaled-up. Some of them were provided with motorcycles but not all of them which do not facilitate their tasks especially in hard-to-reach areas.

The lack of transport is also a challenge for the community screeners as they are covering several communities/villages. Some of them received bicycles but the maintenance of those seems to be a real challenge. All the community screeners interviewed reported that their bicycle was out of use.
The lack of proper funds is equally a constraint. Most of the implementing partners entirely depend on UNICEF fund to run the IMAM and IYCF activities which represents a major obstacle to the sustainability of these activities. As long as IMAM and IYCF will not be included in the pre-service curricula, monitoring and supportive supervision are essential to ensure a minimum quality service. The district nutritionists having no transport from the district (only the region has vehicle) rely almost entirely on the IP for supervising activities. Without UNICEF fund, the monitoring and supervision of the nutrition activities will stop which will be detrimental for the nutrition program.

c. Challenges

One of the main challenges faced by the implementing partners is how to monitor the nutrition activities and ensure good quality services when scale-up at district level. For instance, in Moyamba district, CAUSE-Canada has to monitor 1429 functional MSG, while HEDO in Kenema has to monitor 1120 community screeners.

Long distances are also a major challenge knowing that in some district it could take more than 3 hours’ drive to reach a PHU from the main town. The existing OTP facilities are insufficient to cover an entire district particularly in remote areas resulting in high defaulting of caregivers. In addition, during the rainy season, some hospitals, PHU and communities are completely isolated due to roadblock.

Incentives seem to create problems especially where there is a partner giving monetary incentive. Apart from the MSG interviewed, one of the IP reported that some members are leaving the MSG to join another community group where they receive monetary incentive.

The government is about to endorse a CHW strategy that would probably help to regulate the incentives given to the community workers. However, if this strategy is endorsed as it is actually, it will still let room for discrepancy.

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Extract from the CHW strategy [9]:

Motivations for Community Health Workers are both monetary and non-monetary. CHWs are Volunteers. However, MoHS recommends that they ALL receive a standard minimum motivation package. The MoHS has defined this minimum motivation package to include, for purposes of identity, standardised T-shirt, badge, caps; and for cultivating a sense of achievement, certificates/awards and letters of recognition.

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**Recommendations for UNICEF:**

- Keep supporting (financially and technically) the IP for the nutrition activities (IMAM and IYCF)
- Provide motorbikes to IP monitors especially in districts where IYCF are planned to be scaled-up
- Advocate with the MoH to ensure that district nutritionists can get a transport for monitoring and supervision visits
- Organize exchange visits between partners to allow knowledge sharing
V.2 The District Health Management Team

We visited the DMO and the DN in each district; in Kenema and Bombali districts, we met the same DN in 2010. The DN’s job description is in the Ministry of Health and Sanitation National Operational Handbook for Primary health care 2004. In Kenema and Makeni, the DN had their own vehicle because they are regional/ district towns. As only the DN of the region is supplied with a vehicle, the DN of Moyamba and Kono districts had no dedicated transport. They all had one or two focal points according to the size of the district. The 4 DNs were trained on IMAM and two of them (in Moyamba and in Kono) were trained on IYCF. Supervisions are made with or without the help of the International Partner (IP) and because of the proximity of the SC, the DNs regularly do supervision visits to the SC.

The high rotation of staff is a real concern for each district for both the SC and the OTP. This is the concern of several DHMTs - but there is a large variation between districts. For example the DMO of Bombali stated that in the coming year 40 MCH aids will leave to join the SECHN school of nursing, and there will be attrition of staff for other reasons as well. Transfer to the nursing school is so attractive that the DMO considers that it will paralyse the health system of Bombali and not only prevent further scaling up of nutrition services but may jeopardise all the programs offered by the health system. If undue emphasis is given to scaling up nutrition then this has the potential for all the other functions of the health service to be scaled down due to lack of human resources. However, he stated that it would only last for this coming year. There is a real urgency to integrate nutrition in general and the protocol in particular into both the school of nursing and the curricula of the doctors. It is partly done but not adequately or totally. If this is done, then when the newly trained graduates will augment the system and at that stage make scaling up, whilst maintaining quality, feasible. Scaling up has to take into account the availability of trained staff to understand and implement the protocol without compromising all the other equally essential services (eg vaccination, IMCI, Maternal health, etc.). The new assigned staff have to be trained on-the job by the DN with the help of the IP nutritionist.

The transport of the patients from the OTP to the SC is facilitated by travel voucher given by the IP. Free communication is implemented by the NGO MRC for Bombali district and by CUG (Close User Group) for Kenema.

A problem is that the SAM number is changed at each step of the treatment if the child goes from OTP to SC and then back to OTP. It is not clear how many times he/she is counted as a new admission; it is certainly minimized due to the supervision of the DN and the IP but this point should be addressed.

The monthly reports are usually submitted on time at district level according to the DN. However the database of 2011 and 2012 are incomplete and impossible to verify because the date of opening of the OTP/SC as well as the expected and the observed monthly reports are not recorded. There are often stock-outs of RUTF and this information is also missing in the database.

A list of the materials that need to be replaced was prepared and the material is to be distributed according to the Food and Nutrition Directorate and UNICEF-Freetown.

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6 The MoHS will stop the aid nurse to join the SECHN school in 2014.
7 Except in Kenema where the PCA with HEDO stopped.
The Supplementary feeding programme was implemented in Moyamba, Kenema and Kono but not in Bombali because of the SNAP programme. Surprisingly, the programme is rationed by limiting it to admit 20 children per month whatever the magnitude of the needs or numbers of patients. The SF program only uses the WH chart; there were frequent stock-outs of products in 2012 (despite the ethically questionable decision to ration the program irrespective of needs).

**District monitoring and supervision and the RUTF consumption**

The “Free health care” initiative is in charge of the transport and delivery of the RUTF from the central to the district level; the DMS is in charge with the DN and the DLO to deliver the RUTF to each PHU since 2010. But at the moment the responsibility is still under the responsibility of the FHCI.

The projection of RUTF needs is made by the DN who contacts the Food and Nutrition Programme MoHS (CMAM officer for OTP) if there is a problem of shortage. She is supposed to transmit the information immediately to the UNICEF team in Freetown (see figure 4).

**Figure 4 – Flow of RUTF from the order to the delivery at PHU level**

Everywhere we went stock-outs were a major problem. The DN and the IP were very well aware of the situation; however UNICEF and National Food and Nutrition Programme MoHS was often not informed (for example in Kenema and Moyamba districts). UNICEF thought that there was a one month buffer stock in the District Management Store (DMS) whereas in reality there was no buffer stock in Moyamba and only a few cartons of RUTF in Kenema (and no F100 in stock). According to UNICEF, the DN and the IP were supposed to immediately remake a new projection of supplies when they found out that there was no buffer supply in the DMS. This was not the case and remained unsolved. The DN had sent an e-mail to the person in charge in the National Food and Nutrition Programme MoHS in Freetown but no action had been taken.
The DN did inform her senior advisor at the National Food and Nutrition Programme MoHS by email. However, connection, communication problems, mismanagement of the email inbox, overwhelming workload or other problems handicapped the whole programme and brought it into disrepute with the beneficiaries. It would be inappropriate if all relied upon one functionary – and the program would halt if this person was ill, on leave, attending meetings or absent for any other reason. Exchange of information between UNICEF, the Nutrition Unit and the concerned partners (IP) for stock-out should be a priority – and a “hot line” should be established. A surveillance system of the stock out as well as the flow of patients has to be reinforced: Free health care – MoHS – UNICEF.

Confusion, difficulties and disagreement also arose between the different partners because of the software used: the software of the MoHS calculated the delivery of RUTF in sachets and the projections made by UNICEF and MoHS were in sachets and then rounded to cartons. This created problem of readjustment: “Free health care” had to readjust quantities in sachets to cartons and the central store had to open cartons of RUTF to adjust the quantities back to sachets. Then the District Logistic Officer and the DN had to readjust the projections made by the DN, UNICEF and the NU for the delivery when it reaches the DMS and afterwards the PHU.

Due to previous excessive use of RUTF, a verification exercises was undertaken in all the districts and consequently a decision was made to decrease the deliveries by up to one half (it is unclear who was responsible for this decision with the potential for destroying the program). A lot of centres had their supply suddenly reduced by 50% as a penalty. This step mainly impacted the patients and their families within the districts. For example, the consumption was calculated as 80 sachets per month per child. If the caseload at the end of the month was 20 according to the monthly report, the new consumption was 80 sachets*20 patients*3mo. = 32 cartons, and this was then reduced by half if the “verification report” showed 50% less caseload during the verification exercises done by the students. The quality of the students’ data does not appear to have been assessed.

We were asked if it is not possible to extrapolated survey results to calculate the caseload. However, according to experts, this is very inaccurate, nearly always overestimates the caseload and does not take into account changing circumstances since the precise time of the survey – for example the effect of seasonal changes in caseload. Thus, the only way should be by close supervision, verification that there are no “ghost-patients” or double registration and on job training.

**Conclusion**

The DNs are the key persons for supervision and on job training; without this cadre of staff the program will not succeed. In each of the 4 districts visited fuel or vehicle problems were frequent impeding their ability to undertake supervisions visits; in particular for isolated OTPs or SCs.

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8 The students were trained for 2 days with one day practical session; a test was administered and only 10-15 out of 30 who performed well were selected to participate. 2-3 top candidates were selected as supervisors. UNICEF staff provided spot check in most places including Moyamba.
Scaling up presented an opportunity to retrain the newly allocated staff within the structures and the new OTPs.

To minimize the detrimental effect of rotation of staff the only way is to integrate the IMAM protocol and the pathophysiology of severe malnutrition into the curricula of all the health professionals involved: nutritionists, nurses, aid nurses and doctors.

It should be recognised at every level from the Minister of Health to the most peripheral worker that a stock-out dramatically affects defaulting, enrolment and coverage detrimentally, but it also disrupts the treatment of the most vulnerable children and will cause death.

Recommendations for UNICEF:

- Keep the support of the IP to help the DN to supervise the opening of the new OTPs and conduct OJT until the scaling up and the rotation of new untrained staff is established.
- Add to the monthly report database the expected and received monthly reports, the date of opening of the centres and the RUTF consumption (Stock-in, stock-out, balance)
- The RUTF delivery should be for a 3-month period in the PHU: each delivery has a cost particularly during the rainy season and the length of time for delivery is increased.
- The stock should be calculated taking into account the variable used by the MoHS software “challenge” (in sachet) after calculation of consumption in sachet rounded into cartons to avoid opening of cartons before dispatch from Freetown.
- A “one month buffer-stock” is an absolute necessity in the district and the PHU. The different steps of the logistic channel have to be taken into account: it takes at least one month from ordering from a PHU to receipt of the delivery. If it is ever decided again to reduce by 50% the quantity according to the verification exercises, first there should be total transparency of these exercises conducted by the students after a 2 days training, second, the student data should be checked independently and third the penal reduction should be removed as soon as the monthly reports become realistic and the consumption and becomes approximately 0.75cartons per child treated and lastly the problem should be corrected at the concerned level and not applied as a blanket penalty upon the whole program.
- OTPs with bad performance should be clearly identified and OJT and supervision visits intensified

Recommendations for the MoHS

- Elimination of dysfunctions including stock-outs, delayed replacement of materials, failure to allocate fuel for supervision, inadequate training and replacement of trained staff with

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9 For example, the consequence of the verification report was 50% reduction in the districts of Kenema and Bombali.
inexperienced and poorly trained staff (rotation) should be the key priorities that the DN should focus on with the DHMT and the higher authorities\textsuperscript{10};

- Allocate a vehicle for each DN with allocated fuel as long as inadequate pre-service training is in place according to the turn-over of staff and the scale up of the OTP and SC.
- Implement monthly standardised report for the DN’s achievements to improve the coordination between national and district level.
- Need of a specific strategy when there is a stock-out of therapeutic products at district level but also at SC and OTP. There is no point to scale up and then to have increased frequency of stock-outs in the districts because of an increased strain on the logistics.
- The supplies of the material should be distributed as soon as possible: poor quality materials increase mistakes.
- Scale up should not be attempted when there is a high rate of rotation of staff with replacement by inexperienced and untrained persons.
- To minimize the detrimental effect of rotation of staff the only way is to integrate the IMAM protocol and the pathophysiology of severe malnutrition into the curricula of all the health professionals involved: nutritionists, nurses, aid nurses and doctors.

**Recommendations for PHU and hospitals**

- Attribute a SAM number on ALL the tools including the growth monitoring chart of the child after clear definition of the SAM N° - Do not change every year to 01 again without adding the last 2 numbers of the year for the registration number ex: 024-12 for year 2012 if the registration number is 024.

**V.3 IMAM activities**

a. Active screening

The community screening is done by volunteers called “community screeners”. They are not receiving any incentives but some were given bicycles from the IP depending on the distance they have to cover to reach the villages they are responsible for. Their main task is to conduct active screening at community level once quarterly. Most of them do report on screening activities to the implementing partner, consisting mainly on communicating the number of children screened and among them the number of children moderately and severely malnourished. When detecting children with acute malnutrition (moderate or severe), they refer them to the nearest PHU. Unfortunately, except in Moyamba district, they do not fill any referral form

\textsuperscript{10} Without this being on a firm footing it will not be possible to roll out or scale up the programme without considerable help from several International/implementing Partners who have the necessary expertise.
when they refer a child. It is therefore extremely difficult to evaluate their work as we do not have any data on the number of children referred who effectively reach the PHU and the number of children correctly diagnose as malnourished.

Active screening is also done by some members of the MSG but there is no report nor referral slips used.

**Recommendations for the IP:**

- Provide referral slips to the community screeners and ask the officer in charge in the PHU to collect and keep them
- Periodically analyse the screening data against the referral slips

**b. Passive screening**

The passive screening information is recorded in the U5 clinic registration book; weight and height are measured for each child less than 5 years of age and then WHZ is calculated, however this last step is often not completed because of the workload, time constraints and also because of the lack of training or/and rotation of staff: in 2 of 4 PHUs visited the column in the register was blank and the WHZ was not calculated or calculated later. Also the MUAC was not part of the routine screening and if taken was not written in the register because of lack of space.

Often drugs were prescribed without taking into account that this child was a SAM child and that some standard treatments and dosages were harmful for these patients. The SAM screened child sometimes was not automatically referred to the IMAM programme and recorded in the OTP register. There also was no link between the community screeners’ referral and the passive screening register.

**Recommendations:**

- MUAC should be the PRIMARY method used for passive screening; only children with a MUAC less than 125mm should have their Weight and Height taken and their Z-score calculated.\(^{11}\)
- All the staff should have personal MUAC tapes supplied to them
- The link between the community screeners and the passive screening and the IMAM programme should be established and documented;
- The administration of drugs for SAM children should not be addressed in the U5 register but the child should be referred to the OTP programme immediately.
- The register should be adapted to a more efficient screening strategy.

\(^{11}\) This is particularly important for children going to the U5 clinic at hospital level and sent as SAM in the Paediatric Ward (see the generic protocol version 2011).
c. OTP

The summary of the evaluation for Moyamba, Kenema and Bombali districts is presented in table 8 and 9. Kono district was not included because the team in this district concentrated mainly on IYCF activities. The OTPs were visited during their day of operation where possible: we were then able to verify the number of patients and estimate the caseload at this time of the month and to compare it with the previous monthly report. The interviews were done during the consultation which was sometimes not easy for the staff or the supervisor of the OTP because of their workload.

Table 8 – Summary of the evaluation of the OTP

<table>
<thead>
<tr>
<th>Staff running the OTP</th>
<th>MCH aid or SECHN with CHW/Community Screeners</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training</td>
<td>All trained in the last 2 years</td>
</tr>
<tr>
<td>Protocol</td>
<td>In Moyamba = 4/4 – Kenema: 3/4 – Bombali: only posters or abbreviated manual</td>
</tr>
<tr>
<td>Tools</td>
<td>In almost all the OTP, some materials had to be replaced (length board - old MUAC.)</td>
</tr>
<tr>
<td>Referral</td>
<td>No information on how the child came to the OTP</td>
</tr>
<tr>
<td>Flow of patients - organisation</td>
<td>Lack of organisation in particular for some centres: taking the weight using pans – note the weight on a piece of paper and then mixed with other: mistakes were found in 6 of 11 OTPs visited.</td>
</tr>
<tr>
<td>Criteria of admission</td>
<td>No major error in the calculation: 4/193 error which is very good;</td>
</tr>
<tr>
<td>Admission MUAC average</td>
<td>MUAC: 108mm</td>
</tr>
<tr>
<td>Admission WHZ average</td>
<td>WHZ: -3.1</td>
</tr>
<tr>
<td>Number of oedema cases</td>
<td>10/193 = 5% with a higher number in Bombali and after Moyamba</td>
</tr>
<tr>
<td>Appetite Test (AT)</td>
<td>The AT is often qualified as “Good” on the charts even if children died the next day or went to the SC. The AT needs more explanation. And was inadequately administered.</td>
</tr>
<tr>
<td>Respiration rate</td>
<td>Difficult to check in healthy patients.</td>
</tr>
<tr>
<td>Frequency of the measurements</td>
<td>The height/length was only taken when it was highlighted on the OTP charts, even if the length of time between one visit and the next one was longer than a month.</td>
</tr>
<tr>
<td>Examination written</td>
<td>Yes</td>
</tr>
<tr>
<td>Routine drugs</td>
<td>Given if present – If stock out of amoxicillin, sometimes replaced by cotrimoxazol</td>
</tr>
<tr>
<td>Outcomes</td>
<td>Often written as “good” or “SFP”; but in fact the child was not admitted in the SFP because of the restriction of caseloads by WFP: Bombali: 6 MAM &amp; 20 SAM over 41 – Kenema: 11 MAM &amp; 15 SAM over 57 – Moyamba: 13 MAM &amp; 39 SAM over 75. Often written cured in the register: for 25% of them, no information</td>
</tr>
<tr>
<td>Absence</td>
<td>50% have an episode of absence due to stock out in Bombali and Kenema districts with no space left on the charts for almost all of the patients. Almost never any space left on the OTP charts for Kenema and Bombali districts.</td>
</tr>
<tr>
<td>Home Visit</td>
<td>None were documented or written on the chart.</td>
</tr>
<tr>
<td>Stock card</td>
<td>Updated but some errors in 2/3 OTP centres. RUTF are written on the stock carton and sachet; not easy to check your stock. Need to be revised.</td>
</tr>
<tr>
<td>Internal transfer to the SC</td>
<td>Changes of SAM N° which makes traceability of the children impossible from Active to Passive screening – Passive screening to OTP - OTP to SC – SC to OTP – OTP to SFP</td>
</tr>
<tr>
<td>Monthly report</td>
<td>Error of addition in some OTPs – often corrected by the DN and signed (the</td>
</tr>
</tbody>
</table>
most common error was the n° beginning of the month which did not correspond to the number at the end of the previous month)

**Archive of the charts**

Classified by type and month of discharge and not by SAM N°. This did not simplify the evaluation. It took times to put them by registration/SAM N° and some charts were missing.

**Regular meeting**

With the community teams: HCD - CHW – Community screeners – MSG - etc.

**District meeting**

Every month or 2 month according to the distance of the centre

**Stock out**

Even during a stock out, the records showed that some children increased weight and even lost oedema! The question arises whether these are recording errors or real "cures" with no treatment.

**Weight during stock out**

Bombali: 14/16 cases increase weight - 5 increased by >=400g
Kenema: 35/44 increase weight and 6 >= 600g

**Weight gain during absence**

Moyamba: 19/23 increase weight (absence without stock out).

**Amount of RUTF given one or more time**

Bombali: (n= 40) 20=ok; 3 were given more; 17 were given less;
Kenema: (n=60) 41 ok; 16 more; 11 less;
Moyamba: (n=76) 56 ok; 8 more (2 give F100); 12 less.

**Remarks**

A lot of charts had a massive weight and/or MUAC gain after a week (even up to 2kg) or after stock out with no action taken or remarks made

194 discharged OTP charts from the last months were entered on excel and analysed using SPSS and Excel. Table 9 shows some results. It was impossible to triage the charts by SAM number and the results are only for indication.

**Table 9 – Some nutrition indicators, district of Bombali – Kenema – Moyamba, May 2013**

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Bombali (n=43)</th>
<th>Kenema (73)</th>
<th>Moyamba (77)</th>
<th>All (193)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Admission weight average</td>
<td>6.8kg</td>
<td>7kg</td>
<td>6.5</td>
<td>6.7</td>
</tr>
<tr>
<td>Discharge MUAC average for the cured (mm)</td>
<td>120mm (+/-5)</td>
<td>120mm (+/-6)</td>
<td>122.5mm (+/-13)</td>
<td>121mm (+/-9)</td>
</tr>
<tr>
<td>Discharge WHZ average for the cured (Z)</td>
<td>-1.7Z (+/-1.5)</td>
<td>-1.5Z (+/-1.7)</td>
<td>-1.5Z</td>
<td>-1.5Z (+/-1.5)</td>
</tr>
<tr>
<td>Discharged cured (n)</td>
<td>14</td>
<td>41</td>
<td>47</td>
<td>102</td>
</tr>
<tr>
<td>Length of stay for the cured (days)</td>
<td>27days (+/-15)</td>
<td>112days (+/-60)</td>
<td>42days (+/-26)</td>
<td>68days (+/-55)</td>
</tr>
<tr>
<td>Rate of weight gain for the cured (g/kg/d)</td>
<td>5g/kg/d (+/-3)</td>
<td>4.5g/kg/d (+/-7.5)</td>
<td>5.2g/kg/d (+/-2.5)</td>
<td>5g/kg/d (+/-2.9)</td>
</tr>
</tbody>
</table>

The gain of weight is around 5g/kg/day. However, we know that for each 5 kcal/kg/d above maintenance the gain will increase by 1g/kg/day using RUTF or F100. If you have an average of 5g/kg/d of weight gain, this means that the total intake will be 100kcal/kg/d to maintain body weight and an additional then 5kcal/g/d for each gram/kg/d of weight gained thus these children have taken 100kcal/kg/d plus (5kcal*5g/kg/d) = 25kcal/kg/d: thus the total energy intake of the children was 125kcal/kg/d of RUTF plus any family food consumed by the children. This means that a minimum of 37.5% of the RUTF that is dispensed is being used for other purposes – particularly sharing within the family. If we decrease the

12 Consequence of the previous stock out.
RATION to 170kcal instead of 200kcal, this should not change the rate of weight gain but will decrease the number of sachets given to each child and hopefully reduce the intra & extra household sharing. If the child has an average of 6.7kg, his/her consumption is 2 sachets per day * 30 = 60 sachets per child per month: this represents for the whole year of 2012: 60 sachets * 33000 = 1,980,000/150 cartons = 13,200 cartons – if you used 80 sachets per month, this will be: 80 sachets * 33000 = 17,600 cartons, this means 4,400 sachets less. Ethiopia – Niger – Ivory Coast – etc. have since the beginning of their IMAM program used 170kcal/kg/d per SAM out patients. Ethiopia did a study in 2007 to compare both 200 and 170kcal table and did not find any difference of gain of weight.

If the IMAM programme was using both WH or MUAC admission and discharge criteria for SAM children, the Supplementary Feeding Programs (SFP) was only using WH; the ex-SAM cured children were supposed to be followed after discharged in the SFP for 3 months. However to check if all the supposed children were in the SFP programme was not easy first because the SFP register was not easy to use for its format, the column allocated was very small and good eyes were required to read the names and the date of consultation; weight was only written once a month and apart from the name, there was no link between both programmes. Because the SFP programmes were limited to of a fixed number of children (and Pregnant/Lactating Women), few ex-SAM children were admitted to the programme; if they were admitted, the numerous stock-outs of Supercereal (CSB+) or RUSF were so frequent and unpredictable that it made the follow-up of SAM children completely inadequate.

The SFP ration was of 2.8 KG for 15 days for a daily ration of 250g of Supercereal and 20g of oil. The day of SFP was different to the OTP day so it was impossible to see and evaluate this program in depth. This means that the discharged children were often discharged with a MUAC less than 125mm from the SAM programme.

However with all the stock-outs rationing and restrictions the programme was still working after a fashion for a small number of patients – the staff reported that the community had a system (“bush telegraph”) to know if there were or not a stock out.

**Recommendations:**

- Improve the organisation of the OTP (anthropometric measurements, shelves for the different registers, table and chairs)
- When using Salter scale, basin should be used instead of hanging pants
- WHZ should only be calculated at admission and then the target weight should be used (see generic protocol version 2011). This would decrease the workload and the errors.
- Appetite test is only needed if the child is not gaining weight same for the respiration rate
- Admit the child in the health structure where the first SAM diagnose is made (see generic protocol version 2011)

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13 the Valid/Fanta calculations are excessive, wasteful and encourage sharing
• OTP chart should be revised adding the SAM and registration N° - the referral from – the number of sachets given and the number of empty sachet given back – the health education – home visit – transfer to the SC and back – failure to respond to treatment

• Link with the SFP should be made and documented if any follow up of the cured ex SAM patients.

• There should be more accuracy of the reporting: monthly report should have the stock for the main drugs and RUTF consumption

• Archiving of the charts should be by SAM N°

• OTP/PHU supervisor far from the district town should be compensated for travelling to attend regular monthly meeting at district level.

• A “user friendly summary guide” including a list of drugs that should not be given to the SAM children should be available in all OTPs.

• Amoxicillin should be given/order in tablets or syrup but not in capsule

• The amount of RUTF to give per class of weight should be decreased to 170kcal/kg/day

It was impossible to do a deeper analysis of the discharged children and the consequence of the numerous stock outs that happen during year 2012 but it certainly should be done.

d. Stabilisation centre

We saw 5 MoHS Stabilisation Centres and 3 private ones. It is certainly the private ones which needed attention with exception of Ola During SC which had a lot of problems. The multi-charts have some problems like twice the surveillance – nothing to indicate the phases – no graph for the weight. Register are used in each facility for admission and discharge. However the SAM number is not respected and changed for each facility: it is more a registration number. Four SC over 8 had the protocol; one SC had the 1999 WHO modules and Magbente was using their own revised version of the protocol (2007). Only one structure did not have drinkable water for the mothers: they had to buy water. One SC was using the old High Energy Milk (HEM) but was incorrectly calling it F100. Six of the 8 SC had updated stock cards. Five over 8 SC run out of F100 and were lacking of an accurate scale of 10 to 20g precision. The Supplemental Suckling Technique for the less than 6 months was rarely accurately done: training and demonstration centre is needed. Toys were not seen during our mission. The SC information collected during the evaluation is summarized in Annex 4.

Recommandations for the SC (when needed):

Makeni governmental SC:
- Dr Kamara trained in 2007 worked for MSF – needs refresher training;
- Nurses should not rotate every 6 months – a rapid solution should be found.
- Passive screening in the U5 clinic should be improved;
- Material: Urgent needs of a good accurate scale (10 to 20g precision) for the follow up of the complicated cases and less than 6 month babies.

Kenema governmental SC:
- CHO needs to be retrained – good potential
- Posters need to be updated and as well as a user friendly summary guide
- Supplemental Suckling Technique should be introduced

Freetown Ola During governmental SC
- Intensive OJT supervision for the whole staff including doctors has to be done;
- Nursing aids should stop using reconstituted High Energy Milk and should not confuse this with F100 on the charts;
- The centre should NOT be used to teach students in its present state – it must be upgraded before receiving students.

Magbente SC – Panguma SC – Kamakea SC:
- The private SCs are not free; there is no need to do routine laboratory exam: they should be limited to the absolute essential ones; the use of expensive and not free drugs should be examined.
- For Panguma, the new doctor should be urgently trained with particular attention to the less than 6 months SAM protocol.

Overall Recommendations for the SC:
- The IPF tools and protocol need to be revised, in particular the sections on antibiotics and on complications.
- Posters and user-friendly summary guide should be available
- Proper scale with 10g precision has to be available in each SC as soon as possible;
- The rotation of staff should be kept to an absolute minimum – and the only reason for “rotation” should be the person leaving that centre;
- The SS Technique should be introduced in all the SC, with the help of Dr Kamara
- Stock out of any therapeutic products (F75 – F100 – RUTF) in the SC should not happen.
- There is NO need to do routine lab exam and then charge the patients in the private SC.

V.4 IYCF activities
In total 18 mother support groups were interviewed in 4 districts. The number varies from one district to the other depending on the time available, the distance to reach the community and the number of person in the team. For instance, in Bombali district, team 1 was concentrating on IMAM activities and had time to interview only two MSG and two community screeners. The detailed is presented in the table below:

Table 10 – Number of Mother Support Groups interviewed

<table>
<thead>
<tr>
<th>District</th>
<th>Number of MSG interviewed</th>
<th>Number of members present / Total number of members in the MSG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moyamba</td>
<td>6</td>
<td>7/15 8/15 7/15 3/10 2/10 1/10</td>
</tr>
<tr>
<td>Kenema</td>
<td>4</td>
<td>14/23 7/19 8/18 10/27</td>
</tr>
<tr>
<td>Bombali</td>
<td>2</td>
<td>8/15 8/18</td>
</tr>
<tr>
<td>Kono</td>
<td>6</td>
<td>16/25 14/15 23/31 30/30 29/30 30/30 28/30</td>
</tr>
</tbody>
</table>
a. Operating mode of the Mother Support Group

The evaluation of the MSG did not focus on the quality of their activities as such. The aim was more to understand what work and what need to be improved.

The interviewed MSG were not formed at the same time; some were formed in 2009 while others were formed in 2012. However, the interviews with the MSG members revealed that the income generating activities, the benefits they get from the group (vegetables from the backyard garden, group loan, etc.), animal revolving funds and the recognition by the community were the major components to maintain members together in the group and make the group operational.

On the 18 interviewed MSG, the majority of them welcomed new members and only 4 MSG said that members left the group. The main reasons were that they were unable to pay the contribution for the group saving loan (3 MSG) or marriage (1 MSG). This information shows that the groups were working pretty well and that each member found a self-motivation to stay in the group. The new members joined the group because of its good reputation in the community. In some communities where there was no MSG, people were asking the implementing partners to come and help them to form one. When asking them why they want to form a MSG the main answer was “because this group is good for the community and it helps the members with income generating activities”.

Some interviewed MSG were very impressive. These particular groups can probably function with a less intensive monitoring which could allow the implementing partners to support new MSG in the district. These new groups should be formed based on the demand of the community.

The counselling cards were perceived as a reward within the MSG. However, in most of the MSG met, new members have been trained but the counselling cards were not distributed to all of them mainly because the IP did not make a request to UNICEF for a new set of cards. Members had therefore found a way to overpass this problem. They exchanged the cards between themselves, depending on the counselling session’s schedule.

We were not able to participate to any individual counselling or group counselling sessions but most of the members were able to explain the messages delivered by the counselling cards. They recognize the added-value of the group to solve problems together with the monitor from the implementing partner. The majority of the members mentioned that they have learnt a lot during the training about breastfeeding and complementary feeding but also about the importance of hygiene and sanitation. However, most of them recognized having difficulties to convince the community members to change their behaviour, especially men.

**Recommendations for the IP:**

- Propose various income generating activities to all MSG
- Distribute counselling cards to all trained members who practised at least 10 counselling sessions successfully
- Train the health facilities staff on c-IYCF to increase their involvement in this activity
b. Activities of the Mother Support Groups

The selection of the MSG members is a key factor to ensure that IYCF messages reach the right persons and have an impact on the behavioural comportment change. The Sierra Leone’s program has taken this into consideration when forming the MSG. Indeed, each group interviewed was composed of 10 to 31 members, including lactating women, pregnant mother, teenage girls, TBA, men and even religious leaders and PHU in charge in some communities. Each member has been selected based on volunteering and willingness to help the community to develop itself.

In big catchment areas, MSG members were coming from different villages in order to have at least one delegate by village of the catchment area.

The main tasks of the MSG members are community sensitization, house-to-house counselling and group counselling sessions. However, the majority of them said that house-to-house counselling was more efficient mainly because in the group session, not all the invited participants came and it was easier to speak and convince women and household members in face-to-face discussions. However, not all women accept to be part of an individual counselling session, the main reason being the lack of time.

In the best MSG counselling could be extended to other skills such as Care for Child Development. There are several studies that prove that Care for Child development improves the cognitive and psychomotor development of young children and accelerates the healing of those who are ill. IYCF counselling does already include responsive feeding as part of care for child development approach. It would therefore be interesting to reinforce this component in MSG ready for that.

Most of the members of the MSG are producing vegetables thanks to the backyard garden and seeds provided by the IP but most of them admitted that they were using the vegetables for selling. However, in some of the groups changes were starting to happen and they were saying that they were keeping now some vegetables to feed their children and sell the rest.

When the decentralized monitoring for nutrition activities will be done in each district, we will be able to follow on a regular basis the evolution of the changes of the behaviour. This will be very helpful to redesign the activities and focus on the most needed ones. Up to now, baseline and endline surveys have been carried out only in Bombali district.

Recommendations for UNICEF & IP:

- Introduce Care for Child Development (CCD) counselling in MSG ready for it
- Keep monitoring IYCF activities
- Carry out decentralized monitoring (baseline and endline) in every district

c. Sustainability of the Mother Support Groups

When asking the MSG members on what can be improved in term of IYCF, they all had more or less the same requirements however surprisingly few of them asked for direct incentives (3 MSG out of 18). The list below shows the priorities in order from the highest to the lowest:

- Agricultural tools
- Micro-credit
- Seeds
- Income Generating Activities including machine to produce oil or garri, sewing machine, soap making
- Identification for recognition by the community: badge, cap, t-shirt, etc.
- Rain gear, umbrella, boots, torch light
- Life stock
- Financial support to buy some tools, seeds, etc.
- Counselling cards for those who do not have a set / Training of more MSG / Refresher training / Incentive / Motorbike
- Room to meet

In one of the best interviewed MSG there was at least one literate person keeping record for the group saving loan, writing notes for the record at each meeting, etc. They were able to save an impressive amount of money and were able to buy a goat to each member with the money saved. This group was very advance in term of autonomy compared to the other ones and the only difference we could notice is the literacy of some members.

When asking the implementing partners about the problem they have encountered with the MSG, the main one was the problem of leadership within the group. This was felt also during the evaluation. Some of the MSG leaders needed to be advised and coached by the IP's monitor to manage the group effectively.

The problem of different incentives given by different NGO was also raised as some members of the MSG moved from one group to another one according to the incentives provided.

**Recommendations for UNICEF & IP:**

- Link the MSG with agricultural partners (FAO, UNIDO, etc.) to enhance the agricultural activities within the MSG
- Link the MSG with education partners to propose literacy classes for the interested members and introduce of the MSG to care for child development activities
- Link the MSG with protection partners especially for teenage mothers
- Provide ID (badge, cap, t-shirt, etc.) to the members of the MSG
- Provide rain gear to the members of the MSG

**VI. CONCLUSION**

This report is not a verification report, but also not a detailed in-depth evaluation of each centre visited due to the short time - but it gives an overview of the IMAM programme, its strength and weaknesses and gives specific recommendations.

The IMAM activities are now well accepted by the community and health professionals, even though the frequent stock-outs that occurred during these last 2 years have severely disrupted the program. It is extraordinary to see the small effect that a stock-out has on the recorded gains of weight of the SAM children. This is completely unexpected – but given the gross unrealistic variation of the recorded weights
(up to 2kg gains and losses each week!) it is impossible to tell whether these are real figures or the result of poor measurements/recording.

The other bottleneck is the leakage of RUTF which has detrimental effect on the moral of the nutrition team at national level as well as within the partners and the donor; the direct consequence is a stock out of the different nutrition products and drugs at district level; it is almost happening every 2 months in the visited districts. This can really be the failure of a programme like this.

In term of IYCF, a lot of work has been done since 2009 and the strategy designed for the MSG seems to be the right one. Even if these groups still need to be empowered to become sustainable and autonomous, it seems that they could make a difference in term of prevention of malnutrition. However, for this to happen an equal focus should to be put on PHU and hospitals to ensure that all levels disseminate the same messages to the community.

VII. OVERALL RECOMMENDATIONS

- Revision of the IMAM protocol
- Scale-up will only be successful if the problems identified in this report are first addressed
- Retrain all the staff involved in IMAM to the revised protocol and the use of the tools
- Revise the method of verification involving all levels
- Revise and finalize the IYCF national strategy
- Train health workers on IYCF. The training should start with health workers already engaged in IYCF activities
- In districts with high micronutrients deficiencies, IYCF activities must be coupled with distribution of micronutrients powders (MNPs)
- Continue supporting the IP for implementation of the IYCF strategy
REFERENCES

1. Terms of Reference for Evaluation of Partner Implemented Nutrition Projects in Sierra Leone


3. UNICEF, May 2010. Trip Report, “review the existing comprehensive framework for large scale promotion of adequate IYCF practices in Sierra Leone”. Christiane Rudert


8. UNICEF Sierra Leone, 2012. Level 3 Core Indicators Handbook - Tools and indicators for monitoring and evaluation of IYCF & CMAM programs

9. MoHS Sierra Leone, June 2012. Policy for Community Health Workers in Sierra Leone
ANNEX 1 – Calendar of the evaluation mission

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Activities</th>
<th>Venue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saturday 18, May 2013</td>
<td>19:15</td>
<td>Arrival (Pick up and Accommodation for Helene Schwartz)</td>
<td>Aberdeen Bridge to SIMPLE GOAL GUEST HOUSE</td>
</tr>
<tr>
<td>Saturday 18, May 2013</td>
<td>21:10</td>
<td>Arrival (Pick up and Accommodation for Yvonne Grellety)</td>
<td>Aberdeen Bridge to SIMPLE GOAL GUEST HOUSE</td>
</tr>
<tr>
<td>Sunday 19, May 2013</td>
<td>11:00</td>
<td>Preparation with programme staff</td>
<td>UNICEF Office</td>
</tr>
<tr>
<td>Monday 20, May 2013</td>
<td>07:30</td>
<td>Pick-up from hotel</td>
<td>SIMPLE GOAL GUEST HOUSE</td>
</tr>
<tr>
<td></td>
<td>08:00</td>
<td>Meeting with Chief of CSD</td>
<td>Chief CSD office</td>
</tr>
<tr>
<td></td>
<td>10:00</td>
<td>Meeting with the Representative and Deputy Representative</td>
<td>The Representative’s office</td>
</tr>
<tr>
<td></td>
<td>11:00</td>
<td>Meeting with partners</td>
<td>UNICEF conference room</td>
</tr>
<tr>
<td></td>
<td>14:30</td>
<td>Meeting with the Food and Nutrition Programme MoHS</td>
<td>MoHS</td>
</tr>
<tr>
<td>Tuesday 21, May 2013</td>
<td>07:30</td>
<td>Pick up from hotel</td>
<td>SIMPLE GOAL GUEST HOUSE</td>
</tr>
<tr>
<td></td>
<td>09:00</td>
<td>Meeting with Nutrition Unit</td>
<td>UNICEF conference room</td>
</tr>
<tr>
<td></td>
<td>11:00</td>
<td>Visit Ola-During Hospital</td>
<td></td>
</tr>
<tr>
<td></td>
<td>14:00</td>
<td>Travel to Moyamba for 2 teams</td>
<td></td>
</tr>
</tbody>
</table>

Field Trip

<table>
<thead>
<tr>
<th>Date</th>
<th>Team 1 CMAM</th>
<th>Team 2 IYCF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wednesday 22, May 2013</td>
<td>Visits of the District Nutritionist and the DHMT</td>
<td>Bauya OTP and MSG</td>
</tr>
<tr>
<td></td>
<td>Visit of the District Management Store and DLO</td>
<td>Static OTP and MSG</td>
</tr>
<tr>
<td></td>
<td>Bauya OTP and MSG</td>
<td>Gandorhun SC</td>
</tr>
<tr>
<td></td>
<td>Sunbehun OTP and MSG</td>
<td>Moyamba MSG</td>
</tr>
<tr>
<td>Thursday 23 May 2013</td>
<td>ACF team visit</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sunbehun OTP and MSG</td>
<td>Moyamba Junction OTP and MSG</td>
</tr>
<tr>
<td></td>
<td>Moyamba Junction OTP and MSG</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Travel to Kenema and stay in Paloma Hotel</td>
<td></td>
</tr>
<tr>
<td>Friday 24 May 2013</td>
<td>Visit of the DHMT and the DMO</td>
<td>Giema OTP and MSG</td>
</tr>
<tr>
<td></td>
<td>Giema OTP and MSG</td>
<td>Torkpomdu OTP and MSG</td>
</tr>
<tr>
<td></td>
<td>Torkpomdu OTP and MSG</td>
<td>Majihun OTP and MSG</td>
</tr>
<tr>
<td>Saturday 25 May 2013</td>
<td>Visit of the DMS and DLO</td>
<td>Kenema SC and MSG</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Date</td>
<td>Time</td>
<td>Activities</td>
</tr>
<tr>
<td>-----------------------</td>
<td>------------</td>
<td>----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Monday 30, May 2013</td>
<td>08:00</td>
<td>Pick-up from the hotel</td>
</tr>
<tr>
<td></td>
<td>08:30 – 13:30</td>
<td>Field visit Western Area OTP</td>
</tr>
<tr>
<td></td>
<td>14:00 – 16:00</td>
<td>Meeting with the nutrition unit to discuss the findings and recommendations</td>
</tr>
<tr>
<td></td>
<td>16:00 – 17:00</td>
<td>Debriefing with Regional Advisor Nutrition Felicite Tchibindat</td>
</tr>
<tr>
<td>Tuesday 31, May 2013</td>
<td>08:00</td>
<td>Pick up from Hotel</td>
</tr>
<tr>
<td></td>
<td>09:00 – 10:00</td>
<td>Meeting with the Chief CSD</td>
</tr>
<tr>
<td></td>
<td>10:00 – 17:00</td>
<td>Report writing</td>
</tr>
<tr>
<td>Wednesday 01, June 2013</td>
<td>09:00</td>
<td>Pick up from Hotel</td>
</tr>
<tr>
<td></td>
<td>10:00 – 12:00</td>
<td>Discussion with the nutrition unit on how to best improve adherence to protocol and rational utilization of RUTF</td>
</tr>
</tbody>
</table>
ANNEX 2 – IYCF interview questionnaires

QUESTIONNAIRE MOTHERS SUPPORT GROUP

Date: _____/_____/______ District: ________________ Village: _____________________
Referral OTP: ______________________________________
Personne/s interviewed and position within the MSG:
- 
- 
- 
- 
- 
When did you join the Mother Support Group? _______________________
How were you selected?
_______________________________________________________________________________________
_______________________________________________________________________________________
What are the advantages for you to be part of a MSG?
_______________________________________________________________________________________
_______________________________________________________________________________________
What are the disadvantages for you to be part of a MSG?
_______________________________________________________________________________________
_______________________________________________________________________________________
How many times per month do you meet with the MSG? ___________________________
Apart from this meeting, what is your role in term of IYCF? _________________________________
_______________________________________________________________________________________
How long does a meeting last (on average)? ____________________________________________
What do you think about the MSG meeting? (duration/efficacity/learning/...)
_______________________________________________________________________________________
How much time does this activity take you per month? ______________________________________

What do you think about it (too long, would be happy to spend more time on it)?
_______________________________________________________________________________________
_______________________________________________________________________________________

According to you, how can the MSG/IYCF be improved?
_______________________________________________________________________________________

What are your expectations?
_______________________________________________________________________________________
_______________________________________________________________________________________

Are there some IYCF points that you have difficulty to explain to other/to understand?
_______________________________________________________________________________________

Do you have any tools for IYCF activities?  YES  NO

If yes, what kind of tools?
_______________________________________________________________________________________

Do you screen children for malnutrition?  YES  NO

If yes, how do you do?
_______________________________________________________________________________________

If the child is malnourished, what do you do?
_______________________________________________________________________________________

If the mother does not want to go to the SFP or OTP, what do you do?
_______________________________________________________________________________________

Do you do any report for this activity?  YES  NO

If yes, to whom do you send the report?
_______________________________________________________________________________________

Do you have a mobile phone?  YES  NO

Do you know the community screener in your village?  YES  NO
What do you think of the MAM/SAM treatment?

_______________________________________________________________________________________
_______________________________________________________________________________________

What do you think about RUTF and CSB?

RUTF_________________________________________ CSB

_______________________________________________________________________________________

Any complain from the mothers about these programs?

_______________________________________________________________________________________
_______________________________________________________________________________________

How do you do to involve father and mother-in-law in the sensitization?

_______________________________________________________________________________________
_______________________________________________________________________________________

Do you have a Village Saving Loan in your village?  YES  NO

If yes, what do you think about it?

_______________________________________________________________________________________

Do you receive any compensation from the community for the work you do related to IYCF?

_______________________________________________________________________________________
QUESTIONNAIRE COMMUNITY SCREENERS

When have you been trained on screening? ______________ By whom? ________________________

Do you have a supervisor?  YES  NO

If yes, who is he/she? __________________________ How often are you supervised? ______________

Do you receive any motivation/remuneration?  YES  NO  If yes, by whom? __________________

If yes (money), how much? _______________________ If yes (in kind), what? ____________________

Do you have a bicycle?  YES  NO  From whom did you get it? ________________________________

How many screening do you do per month? ________________

How many children do you screen on average per month? ________________

Do you fill a screening report?  YES  NO

If yes, to whom do you send it? __________________________ How? ____________________________

How often? ______________________________________

What do you do when you detect a severely malnourished child? ____________________________________________________________

What do you do when you detect a moderately malnourished child? ____________________________________________________________

If the mother refuses to go to the OTP or SFP, what do you do? __________________________________________________________

Do you communicate with the PHU when referring children?  YES  NO

If yes, what mean of communication do you use? _________________________________________

After referring a child to the OTP, do you have any feedback about the admission of the child? YES  NO

If yes, by whom are you informed? ______________________________________________________

If the OTP did not admit the child, what do you do? _______________________________________

Have you already encountered a child who has abandoned the program?  YES  NO

If yes, how did you know that the child abandoned?
Do you do some home visiting?  YES  NO

If yes, what is the reason for the home visit?

Do you write any home visit report?  YES  NO

When a child has been discharged from the OTP, do you still have a role to play?

What is your relationship with the MSG in the community?

What do you think of this program?

Do you have any suggestions to improve the program?
Annex 3 – List of the IYCF monthly indicators

1. % of villages in CMAM catchment area with at least one active volunteer screener and referral of SAM cases per chiefdom

2. % of children in CMAM catchment areas screened at least 3 times a year for acute malnutrition

3. % of SAM children referred for treatment who actually attend SC and OTP

4. % of MSG with at least 2 members trained on IYCF counselling and active group facilitation skills

5. % of women with children less than 6 months that report at least one contact with MSG

6. % of women with children 6 – 24 month reporting to have 2 contacts with MSG

7. % of women with children less than 24 months reporting to have sex during breastfeeding

8. % of MSG with active participation of men in MSG activities

9. % of MSG with at least one trained male IYCF counsellor as member

10. % of MSG with at least one unmarried teenage mother as member

11. % of communities in the target communities that have a MSG / chiefdom
## ANNEX 4 – Summary of the SC evaluation

<table>
<thead>
<tr>
<th>SC'Name</th>
<th>Makeni MoHS SC</th>
<th>Kamakwea Private SC</th>
<th>Magbente Private SC</th>
<th>Kenema MoHS SC</th>
<th>Panguma Private SC</th>
<th>Moyamba MoHS SC</th>
<th>Freetown Ola During MoHS SC</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Staff</strong></td>
<td>6 SECHN – 4 nursing aids – 1 doctor</td>
<td>1 CHO 5 nurse aids</td>
<td>1 nurse 2 senior nurses 5 nursing aids</td>
<td>1 CHO 9 nurses 3 nursing aids</td>
<td>3 SECHN 1 untrained doctor 2 nursing aids</td>
<td>3 SECHN 9 nurses 3 nursing aids 2 cleaners</td>
<td></td>
</tr>
<tr>
<td><strong>Rotation</strong></td>
<td>Every 6 months</td>
<td>Change of the trained nurse</td>
<td>No</td>
<td>?</td>
<td>New nurse</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Training</strong></td>
<td>1/6 nurses</td>
<td>OJT only</td>
<td>Needs at least 4 days OJT</td>
<td>2007</td>
<td>2010</td>
<td>2009 – 2010</td>
<td>OJT only by the IP and DN</td>
</tr>
<tr>
<td><strong>Structure</strong></td>
<td>Service next to the Paediatric Ward (PW) Needs cleaning</td>
<td>Service far from the PW</td>
<td>Good</td>
<td>Part of the PW</td>
<td>Ok</td>
<td>Ok</td>
<td></td>
</tr>
<tr>
<td><strong>Passive screening</strong></td>
<td>In the Under 5 clinic but no length board – no WHZ &amp; MUAC done - no oedema check</td>
<td>They do not know how to assess the degree of oedema</td>
<td>From the OTP or admit spontaneously</td>
<td>?</td>
<td>?</td>
<td>In U5 clinic</td>
<td>Dr (OPD) used the old NCHS Z-score table in the IMCI book for hospital</td>
</tr>
<tr>
<td><strong>Look up tables</strong></td>
<td>No RUTF feeding table in Transition Phase (TP)</td>
<td>F100 in TP with 8 and 6 and 5 feeds</td>
<td>F100 look up table - No RUTF feeding table in TP</td>
<td>Yes</td>
<td>Ok</td>
<td>Ok</td>
<td>F100 written but in fact it is not F100</td>
</tr>
<tr>
<td><strong>Posters</strong></td>
<td>Nothing on &lt;6mo babies &amp; complications - mix with old posters</td>
<td>Old poster on F100</td>
<td>Old ones to prepare the F75 with the scoops</td>
<td>Yes</td>
<td>Ok</td>
<td>Ok</td>
<td>Not the right ones</td>
</tr>
<tr>
<td><strong>Multi-chart</strong></td>
<td>Filled</td>
<td>Run out – so made charts Then got the right ones, however still using their own old ones</td>
<td>Filled</td>
<td>Yes</td>
<td>Ok</td>
<td>OK</td>
<td>Yes but use also the PW files for each patient</td>
</tr>
<tr>
<td><strong>Laboratory test</strong></td>
<td>Routinely</td>
<td>Routinely done stools – WBC – Malaria test</td>
<td>Yes</td>
<td>Systematic lab test: expense on the mother bill</td>
<td>No</td>
<td>Routinely</td>
<td></td>
</tr>
<tr>
<td><strong>Products</strong></td>
<td>F100 – F75 – RUTF</td>
<td>F75 – RUTF No resomal No F100</td>
<td>F75 – RUTF No F100: use of powder milk bought in the market</td>
<td>No F100: use of RUTF</td>
<td>F75 - F100 – RUTF</td>
<td>F75 - F100 – RUTF</td>
<td>No F100</td>
</tr>
<tr>
<td><strong>Routine drugs</strong></td>
<td>Sometimes no artesunate for Free drugs given: patients All used without</td>
<td>Amoxicilline Nothing is free -</td>
<td>Ok</td>
<td>Use everything -</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

14 According to Dr in charge, some SAM children admitted in PW instead of SC
<table>
<thead>
<tr>
<th>cerebral malaria – give quinine – 2nd line antibiotic: gentamicin</th>
<th>buy in the drugstore &amp; WHI reimburse them</th>
<th>taking into account the protocol – Amoxicilin is free</th>
<th>Doctor not trained</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Other drugs</strong></td>
<td>Becovit - zinc paracetamol metronidazole – chloramphenicol – cotrimoxazole - ceftriaxone</td>
<td>Paracetamol - zinc metronidazole - becovit – zinc –</td>
<td>Chloramphenicol gentamicine ceftriaxone phenobarbitone metronidazole quinine-vitamine C</td>
</tr>
</tbody>
</table>

| **Preparation of the feeds** | Ok but use the scoops and water too hot | Ok | Ok except water too hot | Ok | No |

| **Feeding** | Use spoons | Give porridge & family meal from Phase 1 to discharge | Use of spoons | Use of spoons – Introduce F100 in TP and then RUTF | Use of spoons | Need feeding table of 8 feeds for small babies |

| **P1** | Only 6 feeds | Only 6 feeds | Only 6 feeds | Should be able to switch from 6 to 8 feeds if needed | ? |

| **TP** | Use always F100 for 1 to 2 days No table for TP for PPN | Use of F100 | Use of F100 | Use of HEM but write F100 on the multicharts |

| **Type of exit** | Not written on the chart | Often not written Missing information | Ok but a lot of deaths in May |