Report on visit to Sierra Leone to support two nutritional surveys and conduct a CMAM feasibility study in six urban slums of Freetown and Tonkolili District.

Prepared by Gudrun Stallkamp, Nutrition Advisor, Concern Worldwide

April 2008
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**Introductory note**

This report covers my visit to Sierra Leone from 14th September to 11th October 2008. The trip’s objectives were firstly, to conduct two nutritional surveys and build the capacity of staff to conduct nutritional surveys and secondly, to assess whether it would be feasible for Concern Sierra Leone to engage in the currently on-going initial CMAM (community-based management of severe acute malnutrition1) activities, and to explore options for engaging in nutrition within the country. This report emphasizes the second part of the visit for the CMAM feasibility and scope for nutrition engagement. The nutrition surveys are reported on in separate reports in detail.

The trip precedes that of the consultant to review the health programme; both visits are expected to jointly contribute to the development of the new health and nutrition programme proposal of Concern in Sierra Leone.

The report draws on the meetings and discussions held with the Health and Livelihoods teams and the ACDP in both Freetown and Tonkolili District. Furthermore, discussion held with various stakeholders in the country and the health support unit in Dublin flow into this report.

The TOR for this visit in the most updated form (including some comments) is attached in Appendix 1.

**Acknowledgements**

I would like to thank and acknowledge the following people without whom the work would not have been possible. Everybody in the Concern Sierra Leone team who contributed to and helped with these activities, both prior to and during the visit, including those who more invisibly greatly contributed to this visit and activities! These are especially Rajeev Vishwakarma, Allieu Bangura, Andrew Massaquoi, Halimatu Massaquoi, Manoj Kumar, Mariana Johnson, Ahmed Dauda and all drivers. Thank you to everybody who gave us their time during the interviews and visits to their health facilities, especially Stefano Fedele for two meetings. Kate Golden, Lynnda Kiess, Nicky Dent and Pie Meulenkamp provided support before, during and after the visit through discussions and imparting their great knowledge and ideas.

*Tenki!*  
The work was overshadowed by the tragic and untimely death of the Shahnewaz Khan, who was fundamental in initiating this work.

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1 CMAM was formerly known as CTC, community-based therapeutic care.
## Visit schedule and brief overview of activities, Sep 14th until Oct 11th, 2008

<table>
<thead>
<tr>
<th>Mon</th>
<th>Tue</th>
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<td>September 15</td>
<td>16</td>
<td>17</td>
<td>18</td>
<td>19</td>
<td>20</td>
<td>21</td>
</tr>
<tr>
<td>Discussion with Health team, with Manoj. Mtg at NAC, MOHS, Unicef, rationale of survey, discussion on sampling</td>
<td>Continue survey planning process (CF, indicators, pop numbers), discussion with Manoj/ Rajeev/ Andrew, security briefing</td>
<td>Share EpiInfo 3.5.1 and ENA-Epi software, Present visit outline in programme coordination meeting</td>
<td>Survey objectives, sampling, draft survey questionnaire, Decision about survey area</td>
<td>Adjust the CF with feedback from LH, describe FS situation &amp; diet over the year, preparation for training and survey</td>
<td>draft proposal for ethical permission, continue with questionnaire, preparation for training and survey</td>
<td>Survey and training prep, visit to urban slums</td>
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<td>22</td>
<td>23</td>
<td>24</td>
<td>25</td>
<td>26</td>
<td>27</td>
<td>28</td>
</tr>
<tr>
<td>last prep for training and start of training</td>
<td>Training for nutrition survey Questionnaire, Measurements</td>
<td>Training for nutrition surveys Field test, sampling, team composition</td>
<td>Training for nutrition surveys Team composition, final site selection leave to Tonkolili</td>
<td></td>
<td>Tonkolili DC supervision</td>
<td>Tonkolili DC supervision, Tonkolili DC supervision</td>
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### Visit schedule continued

<table>
<thead>
<tr>
<th>Mon</th>
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<tr>
<td>29</td>
<td>30</td>
<td>October 1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Visiting Mabang PHU and discussion with MCH Aide, Discussion with Dr Pratt at TFC Magburaka Government Hospital Discussions with Tonkolili District Nutrition Focal point (Mr Okalla) Tonkolili DC ongoing</td>
<td>Travel to Freetown, office work</td>
<td>Idul Fitri rest &amp; catch up on notes &amp; entry mask etc.</td>
<td>Freetown DC supervision</td>
<td>11 am PRSP meeting re Health part, followed by meeting with IRC, 3 pm meeting with MOHS, Ms Scott, PM Food &amp; Nutrition Freetown DC ongoing</td>
<td>Data entry mask and start data entry</td>
<td>Freetown DC supervision Data entry</td>
</tr>
</tbody>
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<tr>
<th>6</th>
<th>7</th>
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<th>10</th>
<th>11</th>
<th>September 14</th>
</tr>
</thead>
<tbody>
<tr>
<td>meeting with ACF 9am, meeting with CRS at 3 pm prep for stakeholder feedback meeting Freetown DC ongoing</td>
<td>Meeting with CARE 9am, 11 – 1pm meeting with Concern Health team, 2.30 pm: meeting with WFP</td>
<td>Visit to urban TFC and OTP site prep for stakeholder feedback meeting</td>
<td>10.30 am – 12 noon Stakeholder meeting Briefing for Ms Scott</td>
<td>9am: meeting with EC meeting with Unicef Data entry training debriefing, share draft recommendations, agree on next steps and FU mechanism with Manoj</td>
<td>Travel to Dublin</td>
<td>Travel to Sierra Leone</td>
</tr>
</tbody>
</table>

Please refer to Appendix 2 for a more detailed overview for the nutrition survey schedule.
### Acronyms

<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>ANC</td>
<td>Ante-natal check up</td>
</tr>
<tr>
<td>BCC</td>
<td>Behaviour change communication</td>
</tr>
<tr>
<td>CBM</td>
<td>Community-based management</td>
</tr>
<tr>
<td>CD</td>
<td>Chiefdom</td>
</tr>
<tr>
<td>CF</td>
<td>Conceptual framework</td>
</tr>
<tr>
<td>CHC</td>
<td>Child health clinic</td>
</tr>
<tr>
<td>CMAM</td>
<td>Community-based management of severe acute malnutrition (previously known as CTC)</td>
</tr>
<tr>
<td>CRS</td>
<td>Catholic Relief Service (NGO)</td>
</tr>
<tr>
<td>CSB</td>
<td>Corn soy blend</td>
</tr>
<tr>
<td>CSP</td>
<td>Child survival project</td>
</tr>
<tr>
<td>CTC</td>
<td>Community-based therapeutic care</td>
</tr>
<tr>
<td>DD</td>
<td>Dietary diversity</td>
</tr>
<tr>
<td>DHMT</td>
<td>District health management team</td>
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</tbody>
</table>
| DHS     | District Health Supervisor  
| 1. Demographic health survey |
| DMO     | District Monitoring Officer (or District Medical Officer?) |
| DRC     | Democratic Republic of the Congo |
| EBF     | Exclusive breastfeeding |
| EC      | European Commission |
| ENN     | Emergency Nutrition Network |
| FAO     | United Nations Food and Agriculture Organisation |
| FFW     | Food for work |
| FPC     | Food price crisis |
| FS      | Food security |
| GMP     | Growth monitoring and promotion |
| GOSL    | Government of Sierra Leone |
| HIV and AIDS | Human immuno-deficiency virus and Acquired immuno-deficiency syndrome |
| IDD     | Iodine deficiency disorders |
| IEC     | Information, education, communication |
| IFA     | Iron/ folic acid |
| IRC     | International Rescue Committee |
| ITN     | Insecticide treated bed nets |
| IYCF    | Infant and young child feeding |
| LH      | Livelihoods |
| LOS     | Length of stay |
| MAM     | Moderate acute malnutrition; Moderate acutely malnourished (child) |
| MCH     | Maternal and child health |
| MCHP    | Mother and child health post |
| MOHS    | Ministry of Health and Sanitation (GOSL) |
| MSF     | Medicines sans Frontiers |
| MTE     | Mid-term evaluation |
| MUAC    | Mid-upper arm circumference (anthropometric measure) |
| NE      | Nutrition education |
| NGO     | Non-governmental organisation |
| OTP     | Outpatient therapeutic programme (component of CMAM) |
| PD/H    | Positive Deviances/ Hearth |
| PHU     | Peripheral Health Unit |
**Nutrition products mentioned**

<table>
<thead>
<tr>
<th>Product</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>RUTF</td>
<td>Ready to use therapeutic foods, which is the generic term for foods that are used to treat severe acute malnutrition in young children (and adults too under certain circumstances). The brand Plumpy’nut is an example.</td>
</tr>
<tr>
<td>F75</td>
<td>This is a fortified high energy milk that is use for therapeutic purposes. It is used during the first phase of stabilisation of a severe acutely malnourished child that was admitted to an in-patient facility. The ‘75’ is indicative of the energy content (75 kcal/ 100mL).</td>
</tr>
<tr>
<td>F100</td>
<td>This is a fortified high energy milk that is use for therapeutic purposes. It is used during the second phase of stabilisation of a severe acutely malnourished child that was admitted to an in-patient facility. The ‘100’ is indicative of the energy content (100 kcal/ 100mL).</td>
</tr>
<tr>
<td>CSB</td>
<td>Corn soy blend. This is used in supplementary feeding programmes (SFPs), e.g. by WFP, and involves the distribution of large quantities of the fortified blend. It is usually used to address moderate acute malnutrition and may further be targeted to vulnerable households.</td>
</tr>
<tr>
<td>CMV</td>
<td>Complex minerals and vitamins. This is a specific product that is used to enrich the diet with additional vitamins and minerals. This specific product is used in a clinic context only (i.e. not provided as a take-home ration).</td>
</tr>
<tr>
<td>ReSoMal</td>
<td>Rehydration solution during malnutrition. This is a specific formulation of ORS, oral rehydration salts, that is</td>
</tr>
<tr>
<td>Plumpy’nut</td>
<td>is a brand name of an RUTF produced by Nutriset, France</td>
</tr>
</tbody>
</table>
1. Executive summary

This report covers a visit that comprised two nutrition surveys and a feasibility assessment for Concern to get engaged in community-based management of severe acute malnutrition (CMAM, previously known as community-based therapeutic care, CTC) and a scoping assessment for Concern engagement in wider nutrition programming in the country.

Two cluster surveys among children below the age of five years were conducted, one in Tonkolili District and one in the six urban slums of Freetown where Concern Worldwide is operational. The sample size for children 0-59 months was calculated at 800 children, which included 10% oversampling. In urban area, valid data on GAM & SAM was collected on 799 children, in rural areas data on 776 children was collected, which was still within statistical limits. Data here are presented for the age group 6-59 months olds, which is the usual age group for CMAM related activities. Percentages for all children aged 0-59m were slightly lower. Data were cleaned according to exclusion criteria recommended for the WHO growth standards.\(^2\) and anthropometric indicators were analysed with Anthro 2005 v2.

The overall prevalence of acute malnutrition is low in both rural and urban areas at slightly above 5%. However, the prevalence of severe acute malnutrition is very high at 2.3% and 1.8% in rural and urban areas, respectively, which also indicates that almost half of all acutely malnourished children in rural areas are actually severely malnourished. Dietary diversity is low: young children consume an average of three food groups a day and about half of all young children do not consume four or more food groups a day.

Tables 1a and 1b in the main text in section 2 below provide an overview of the main indicators in rural and urban areas; detailed information about the surveys can be found in the nutrition survey reports.

During the CMAM feasibility/nutrition scoping assessment (29th Sept, 3rd – 10th October), in-depth interviews were conducted with various organisations involved in the current CMAM activities, namely UNICEF (two meetings), the Food and Nutrition Manager within the Ministry of Health and Sanitation (MOHS) of the Government of Sierra Leone (GOSL) (two meetings), the nutrition focal person for Tonkolili District, IRC, CARE, CRS, a consultant for ACF, WFP, and the EC. Discussions were held with representatives of various agencies at a stakeholders meeting, including CRS, GOAL, UNICEF, Health Unlimited.

This report describes various aspects of the on-going CMAM project that I observed or learned about during the interviews, highlighting gaps, future plans and opportunities. Specific options are worked out for the potential expansion of our work into the nutrition field accompanied by recommendations for the Concern country team.

Key observations and conclusions of the situation are:

- With the high prevalence of severe acute malnutrition though relatively low global acute malnutrition prevalence in both the rural and urban Concern working areas, there is certainly a need to engage in the management of SAM. However, it has to be noted that the prevalence is below emergency thresholds. Therefore, an approach with which the Government and Unicef will be supported is recommended, using and integrating CMAM activities into the existing health system.

\(^2\) Please refer to the nutrition survey reports for a more detailed explanation of the reasons why this mechanism was chosen over.
• At the same time, measures to prevent malnutrition, improve dietary diversity and improve food security should be put into place.

• Noteworthy in this non-emergency, poor context is the high prevalence of chronic malnutrition (stunting), especially in rural areas. While measuring the prevalence of micronutrient deficiencies was beyond the scope of the surveys, others report high prevalence of e.g. anemia. Also, a prevalence of overweight in children slightly above the norm is seen in the data. These should be considered within any potential nutrition programmes through e.g.:
  o nutrition education coupled with food security measures to improve access to food and improve dietary diversity,
  o support of the provision of specific nutrition products that aim at preventing malnutrition
  o support of the control of micronutrient deficiencies.

• Food insecurity is one of the underlying causes of malnutrition, while an insufficient health care system is likely to contribute to the high prevalence of severe acute malnutrition. Therefore, in addition to the above, efforts to strengthen the health care system should be continued.

In more detail and in terms of the potential models discussed during the visit, options for potential involvement in nutrition, including CMAM, for Concern Worldwide Sierra Leone include:

• Implementation of CMAM in form of a ‘one model district’ approach, i.e. implementation of CMAM (through partnership) in one district, to very high quality standards; and documentation of the process and lessons learned, which can be used to guide further expansion and intensifying of CMAM activities in other districts.

• National and sub-national/ district level support to the government for CMAM implementation and related technical advice.

• Exploring ways how to implement own activities and support Unicef’s efforts in infant and young child feeding.

• Exploring way with Unicef to support their blanket child feeding programme using nutritional products (bennimix, nutributter) within the Concern working areas, which would help to address chronic child malnutrition in the area.

• Improve and intensify linkages between the health and livelihoods sector programmes for addressing of food and nutrition security in a cross-sectoral, integrated approach. This will improve access to (or availability of) foods at household level to ensure an affordable yet diversified diet to increase the intake of nutrients among young children, pregnant and lactating women and others in the household.

Please refer to the options and recommendations in section 4 that provides much more detail on these.

Unicef seems to be a very good potential partner as they are driving many of the nutrition activities in the country, together with WFP. The Government, especially the Ministry of Health and Sanitation (MOHS) has to be a key partner for all activities and be supported as necessary.

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5 While Concern as an agency usually works in areas where malnutrition in form of wasting (severe or moderate acute malnutrition, oedema) is a problem, poverty has an effect on overweight/ obesity too.
2. **Support for nutrition surveys**

Support was provided to the health team to conduct two nutrition cluster surveys in Tonkolili District and six urban slum of Freetown. Apart from a few staff who participated in an earlier training about anthropometric measurements (as part of the CMAM training), there was little to no experience with nutrition assessments within the team. Therefore, extensive input was provided along all steps of the nutrition survey, ranging from outlining and explaining necessary logistics, enumerator requirements and team composition, survey tools design, training of enumerators, supervision of the survey, data entry. While one of the objectives of the surveys was to build the health team’s capacity so that they would be able to conduct future nutrition surveys without intensive input, due to lack of time within the given time frame it was not possible to train the team on data analysis and reporting. Furthermore, the comparatively poor quality of the data indicates that intensive technical input (intensive training, better supervision, potentially quality control data collection) as well as better planning and recruitment for team members and logistics highly recommended should any nutrition assessment be conducted in the future. For this, more time needs to be budgeted, which was a constraint during the current visit. More details can be found in the nutrition survey reports for both surveyed areas.

### 2.1 Summary of methods of nutrition survey

Two nutrition surveys were conducted, one in Tonkolili District (26-29 September, 2009) and one in six slums of Freetown where Concern Worldwide is operational (2-6 October, 2009). The surveys were based on the SMART method with small adjustments. The sample size for both surveys was calculated at \(n=800\) children below the age of five years (0-59 months), which included 10\% oversampling for drop out and an assumed design effect of . The surveys were representative of the overall area, and data was collected using multistage cluster sampling with 32 clusters per area within which 25 children each were randomly selected. The rural survey was not able to achieve the full sample size due to inaccessibility of the area and time pressure; however, it is assumed that the data are nevertheless valid due to the generous oversampling. Data were collected on child health and nutrition status, including anthropometric measurements, and mortality and food security, including child level dietary diversity. Ethical permission for the two surveys was sought.

Data collectors were health programme staff of Concern’s projects in Tonkolili District and Freetown programmes, Family Motivators from the same projects, as well as students affiliated with the National Accountability Group (NAG) who were familiar with conducting surveys. Data collectors were trained over 3 days in Freetown. Eight teams were formed for data collection, consisting each of a Concern health programme staff (team leader), a family motivator (rural & urban based) and a student from NAG. The teams stayed in the same composition for both the Tonkolili District and Freetown survey, with the exception that the Family Motivators only participated in the area that they were based in (rural vs urban Family Motivators). Data were entered using the data entry mask of ‘EpiData Entry’ and data were analyzed using WHO’s Anthro 2005 v2, ‘ENA-EpiInfo for Windows’ (‘SMART software’), and ‘STATA SE v9’.

### 2.2 Key findings of the nutrition surveys

The key results from the analysis of the two surveys are presented in Tables 1a and 1b for Tonkolili District (‘Tonkolili’) and the six urban slums in Freetown (‘Freetown’), respectively.

While the prevalence of acute malnutrition is low with an overall prevalence around 5\% in both areas, the proportion of children who suffer from severe acute malnutrition is very high (2.3\% Tonkolili; 1.8\% in Freetown) and nearly accounts for half of all acutely malnourished
children in rural areas. These latter children are the target group for CMAM activities. Usually, a prevalence of GAM >10% is used to initiate emergency feeding programmes, e.g. CMAM, where in this case this criterion is not given and also the upper confidence levels do not cross this threshold (except for disaggregated data, where the upper limit for urban boys is 12.3%).

More than a third of all children suffer from chronic malnutrition: 36.0% in Tonkolili and 27.7% in Freetown, which are categorised as a ‘serious’ and ‘poor’ status, respectively, according to international criteria. Average dietary diversity scores, which describe the average number of food groups that children consumed during the 24 hours preceding the interview are just above 3 food groups in both Tonkolili and Freetown and half of the children did not consume foods from four or more food groups. As expected, most of all urban households bought their food on the market while in rural areas, slightly more than half of the food consumed was bought and only about 30% produced at household level.

**Table 1a. Nutritional status from the nutrition survey in Tonkolili District.**

<table>
<thead>
<tr>
<th>Age group (months) and n</th>
<th>All (children)</th>
<th>Girls</th>
<th>Boys</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Severe acute malnutrition (WHZ &lt;-3SD) and/or oedema (%), 95% CI</strong></td>
<td>6-59 n=688</td>
<td>2.3 (1.1-3.5)</td>
<td>1.7 (0.2-3.3)</td>
</tr>
<tr>
<td><strong>Global acute malnutrition (WHZ &lt;-2 SD) and/or oedema (%), 95% CI</strong></td>
<td>6-59 n=688</td>
<td>5.7 (3.9-7.5)</td>
<td>5.2 (2.7-7.7)</td>
</tr>
<tr>
<td><strong>Percentage of children with oedema</strong></td>
<td>6-59 n=688</td>
<td>1.2 (8 children)</td>
<td></td>
</tr>
<tr>
<td><strong>Stunting (HAZ &lt;-2 SD) (%), 95% CI</strong></td>
<td>6-59 n=679</td>
<td>36.0 (34.9-42.3)</td>
<td>31.8 (30.2-40.6)</td>
</tr>
<tr>
<td><strong>Underweight (WAZ &lt;-2 SD) (%), 95% CI</strong></td>
<td>6-59 n=693</td>
<td>17.5 (15.6-21.6)</td>
<td>15.5 (12.8-21.0)</td>
</tr>
<tr>
<td><strong>Risk of overweight (WHZ &gt;1 SD)</strong></td>
<td>6-59 n=688</td>
<td>17.2 (14.3-20.0)</td>
<td>16.8 (12.7-20.9)</td>
</tr>
<tr>
<td><strong>Children’s dietary diversity score (mean number of food groups consumed in previous 24 hours)</strong></td>
<td>6-23 (n=253)</td>
<td>3.2</td>
<td></td>
</tr>
<tr>
<td><strong>Percentage children who consumed four or more foods (%)</strong></td>
<td>6-23 (n=253)</td>
<td>51.0</td>
<td></td>
</tr>
<tr>
<td><strong>Crude death rate (95% CI) household, 85 d recall</strong></td>
<td>household, 85 d recall</td>
<td>1.42 (0.76–2.62)</td>
<td></td>
</tr>
<tr>
<td><strong>Underfive death rate (95% CI) 0-59, 85 d recall</strong></td>
<td>0-59, 85 d recall</td>
<td>2.52 (1.36 – 4.65)</td>
<td></td>
</tr>
<tr>
<td><strong>Households who bought most of their food on market on day before interview (%)</strong></td>
<td>households (n=462)</td>
<td>53.2</td>
<td></td>
</tr>
<tr>
<td><strong>Households who produced most of the food consumed on day before interview (%)</strong></td>
<td>households (n=462)</td>
<td>31.6</td>
<td></td>
</tr>
<tr>
<td><strong>Exclusively breastfeeding (%)</strong></td>
<td>0-5 (n=101)</td>
<td>75.2</td>
<td></td>
</tr>
</tbody>
</table>

*Values of anthropometric indicators are based on WHO growth standards.*
Table 1b. Nutritional status from the nutrition survey in six slums of Freetown

<table>
<thead>
<tr>
<th></th>
<th>Age group (months)</th>
<th>All (children)</th>
<th>Girls</th>
<th>Boys</th>
</tr>
</thead>
<tbody>
<tr>
<td>Severe acute malnutrition (WHZ &lt;-3SD) and/or oedema (%)</td>
<td>6-59 (n=726)</td>
<td>1.8 (0.8-2.8)</td>
<td>1.3 (0-2.6)</td>
<td>2.3 (0.6-4.0)</td>
</tr>
<tr>
<td>Global acute malnutrition (WHZ &lt;-2SD) and/or oedema (%)</td>
<td>6-59 (n=726)</td>
<td>7.4 (5.5-9.4)</td>
<td>5.8 (3.3-8.3)</td>
<td>9.2 (6.0-12.3)</td>
</tr>
<tr>
<td>Percentage of children with oedema</td>
<td>6-59 (n=726)</td>
<td>0.7 (5 children)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stunting (HAZ &lt;-2SD) (%)</td>
<td>6-59 (n=719)</td>
<td>27.7 (24.3-31.0)</td>
<td>24.3 (19.9-28.8)</td>
<td>31.4 (26.3-36.5)</td>
</tr>
<tr>
<td>Underweight (WAZ &lt;-2SD) (%)</td>
<td>6-59 (n=732)</td>
<td>15.8 (13.1-18.6)</td>
<td>12.9 (9.4-16.4)</td>
<td>19.0 (14.7-23.2)</td>
</tr>
<tr>
<td>Risk of overweight (WHZ &gt;1SD)</td>
<td>6-59 (n=726)</td>
<td>14.0 (11.5-16.6)</td>
<td>14.1 (10.4-17.7)</td>
<td>14.0 (10.3-17.8)</td>
</tr>
<tr>
<td>Children’s dietary diversity score (mean number of food groups consumed in previous 24 hours)</td>
<td>6-23 (n=337)</td>
<td></td>
<td>3.3</td>
<td></td>
</tr>
<tr>
<td>Percentage children who consumed four or more foods (%)</td>
<td>6-23 (n=337)</td>
<td></td>
<td>49.6</td>
<td></td>
</tr>
<tr>
<td>Crude death rate (95% CI) household, 92 d recall</td>
<td></td>
<td></td>
<td>0.35 (0.18 – 0.67)</td>
<td></td>
</tr>
<tr>
<td>Underfive death rate (95% CI)</td>
<td></td>
<td></td>
<td>0.52 (0.20 – 1.37)</td>
<td></td>
</tr>
<tr>
<td>Households who bought most of their food on market on day before interview (%)</td>
<td></td>
<td></td>
<td>94.9 (n=569)</td>
<td></td>
</tr>
<tr>
<td>Exclusively breastfeeding (%)</td>
<td>0-5 (n=98)</td>
<td></td>
<td>57.1</td>
<td></td>
</tr>
</tbody>
</table>

*Values of anthropometric indicators are based on WHO growth standards.

The reports on the nutrition surveys provide more in-depth information on the results of these two surveys.

2.3 Conceptual frameworks for the causes of malnutrition and food security (urban poor & rural context)

A conceptual framework was prepared together with Allieu and Andrew as well as input from the livelihoods team. The process of designing the first conceptual framework was guided by UNICEF's conceptual framework of the causes of malnutrition (1990) and adjusted to reflect the situation and relations as the team perceived them. The food security part of this first framework proved to be very complex and obviously different in rural and urban areas. Therefore, separate frameworks were created for food security issues in rural and urban areas.

The frameworks and the exercise had the following objectives:

- to establish indicators that should be assessed during the nutrition surveys and guide the design of the questionnaires,
- to guide the design of the food security module of the nutrition survey questionnaire,
- to obtain a better understanding of the food security situation,
- as a whole, to identify the linkages between nutrition and food security that are important to consider during programme design, and
- to aide the later strategic planning process for the health programme sector within Concern Sierra Leone.
They highlighted the following issues:

- insufficient information and poor awareness about nutrition as well as misconceptions or inappropriate local practices and taboos around nutrition
- insufficient health care capacity (facility, staff level)
- poor awareness about good health practices, esp. reproductive health
- high disease burden that contributes to high mortality rates if untreated
- insufficient improved drinking water and adequate hygiene practices
- political, economic and climatic parameters
- Food insecurity was worked out separately for rural and urban areas as these differ in certain aspects. Rural areas are facing challenges related to agricultural practices, production and processing, while challenges in urban areas comprise income poverty, access to food and poor potential for agricultural production.

The frameworks can be found in Figures 1-3 below.

**Figure 1.** Conceptual framework for the causes of malnutrition, based on UNICEF 1990, adjusted for the Sierra Leonean context.
3. Feasibility assessment for engagement in CMAM and scope for wider nutrition programming

This second part of my assignment was to assess whether and how Concern should engage in the Community-based management of severe acute malnutrition (CMAM) activities that were started within all 13 districts in the country.
3.1 Methods for the ‘CMAM feasibility and scope for nutrition’ assessment

A series of in-depth interviews were conducted with various organisations that are involved in the current CMAM activities. These included UNICEF (two meetings), the Food and Nutrition Manager within the Ministry of Health and Sanitation (MOHS) of the Government of Sierra Leone (GOSL) (two meetings), the nutrition focal person for Tonkolili District, IRC, CARE, CRS, a consultant for ACF, WFP, and the EC. Discussions were held with representatives of various agencies at a stakeholders meeting (including CRS, GOAL, UNICEF, Health Unlimited). Due to some repeated misunderstanding of the agencies’ name, the Swiss Sierra Leone Development Fund was not visited. A detailed list of all persons interviewed and their affiliations can be found in Appendix 3.

During the CMAM meetings, the following list of topics was used to guide the discussion with staff from the various organisations or treatment sites:

- Training, management, logistics, reporting, supervision, criteria, referral, performance, coverage, stabilisation centre/ TFC, pilot and scale-up, coordination, SFP, challenges (all of these in detail)
- At OTP/ TFC sites: registration & records, CTC database or similar system to record/ summarise cases, reporting lines & frequency, supervision (who, when last time, interval), how is supply stored/ ordered/ restocked, issues around supply (how long does current supply last etc), who is responsible for store, number of children in programme & capacity, average length of stay, how triage done, how screening/ admissions/ discharge/ referral
- Opinion about good entry point for Concern to engage in CMAM, needs and current gaps where further support would be useful, challenges

A SWOT analysis was done after the visit considering all information from the discussions as well as document review. Recommendations were drawn from taking all learned and reviewed information into consideration.

3.2 Summary of CMAM and key observations

CMAM was started by Unicef and the MOHS in the country at the end of 2007 in four districts, Tonkolili, Bombali, Kenema and Western Area. Initial support to set up the programme in the four original sites and capacity building of personnel of involved PHUs were provided by Valid International and nutrition consultants.

A mid-term evaluation covering the original four districts was conducted in June 2008 by Valid International showing good programme performance (though sometimes no consistent data available), quality of care, good community mobilisation (often also directly through mothers), integration into the PHU system, ownership of the programme, staff knowledge. Challenges highlighted included supply issues (both nutrition products and medical drugs), allocation for funds within the MOHS budget, reporting, recording, and capacity. Some areas had no functional OTP sites due to an interrupted supply chain.

In Tonkolili District, Government support for CMAM activities was found to be very good (support, monitoring, supervision, identifying needs and addressing constraints). The two out of the seven PHU (=OTP sites) that are also included in Concern’s health programme reportedly had a better drug supply than the other five OTP sites in the district. RUTF supply had, however, stopped by the time of the mid-term evaluation in the Tonkolili District. In the Western Area District, there was a slight increase in defaulters (which might mask deaths), supervision, support and workload seemed to be greater challenges. Shortages in equipment

6 A Walsh (Valid International) Mid term evaluation of the community-based management of acute malnutrition (CMAM) in Tonkolili, Bombali, Kenema and Western Area Districts, Sierra Leone, June 2008. (DRAFT)
were observed during the midterm evaluation. Health care staff referred to these earlier shortages during my visit; at that time the problems had been solved except for the provision of plumpy’nut that was again running out.

Soon after the programme was started, services were expanded into the other nine districts to cover all 13 districts of the country. During my visit, this was mentioned to have happened too early. There was no evaluation of the original four sites before the decision for expansion was made (the midterm evaluation was conducted afterwards!) and emphasis seemed to have been on setting up at least one functional TFC site per district while the setup of decentralised OTP sites seemed to have been much neglected.

Besides the MOHS and Unicef, several organisations involved in the CMAM project include CRS and the Swiss Sierra Leone Development Fund and four to five smaller local partners. IRC did not opt to participate in the CMAM project while CARE currently considers starting to use their existing community mobilisation system for screening and referral of children into the OTP. MSF runs a TFC in Bo but has withdrawn from e.g. the one in Tonkolili District (Magburaka). The local organisations seem to be implementing the project at a one chiefdom level only that are convenient for their own programme implementation but are extremely difficult to manage within the overall CMAM project.

Key observations of the programme from the visit to several programme sites as well as the discussions with various organisations are listed below. Many of these are not yet optimally implemented and need to be addressed in a prioritizing manner over the course of the CMAM project.

- **Low ‘density’ of OTP sites** within an area; there are about 5-7 OTP sites within all districts now and 9 operational TFCs within the 13 districts of the country. This results in multiple challenges around adequate referral/ admission into the programme and referral within the programme (OTP to TFC and vice versa). Arising **challenges** include:
  - long distance to OTP/ TFC, therefore issues around transport means, transport fees and time burden for caretakers/ families
  - adequate programme coverage within an area/ district,
  - learning for up-scale (scale-up is already underway)
  - burden on existing high level facilities

- **Therapeutic feeding centres (TFCs) instead of stabilisation centres (SCs),** which is understandable due to the low density of OTP sites. However, there are implications around length of stay, caretaker time and siblings being without caretaker, food supply at TFC, food for caretakers (sometimes a caretaker ration is provided)).

- **Systemic location of the CMAM programme is very promising,** i.e. all services are meant to be **integrated into the existing health care structure,** namely peripheral health units (PHUs)\(^7\) that are available within the country.

- At least one staff member of the four operational sites visited had participated in the earlier **trainings provided** by Valid International and/ or Prof M Golden/ Y Grellety and there seems to be knowledge about the protocol. However, due to severe supplies shortages was difficult to observe adherence to the protocol.

- There was a massive and acute **lack of food supplies,** which partly seemed to have been localized but seems to have been originated by a pipeline break (delayed arrival of ship with food supplies) coupled with inadequate stocks. This resulted in the following:
  - admitted children could not be treated properly in terms of sufficient amounts of RUTF or therapeutic milks, as well as drugs.

\(^7\) Summary term for different level of primary health care facilities.
o children admitted in a TFC that lacked therapeutic foods received very low quality foods, including thin rice porridge, or were given compromised and modified rations. The likely result of this would be that the vicious cycle of malnutrition could not be interrupted.

- There is a risk that with a likely improvement of properly operating screening and referral mechanisms there will be higher case loads at OTP or TFC sites. In that case, with a similar or only marginally better supply situation, there will not be enough RUTF/ F100 or F75 milks for this increased amount of children. The risk then is that this may reflect negatively on the project’s reputation and caretakers with a negative experience, e.g. who were being turned away, may not use the project further or spread the word about it.

- **Involvement of the government/ MOHS** was very good at lower levels though there seem to be some challenges when moving up the hierarchy ladder.

- There seemed to have been **minor equipment supply issues**, including registration/ OTP cards. Some of these seem to be solved, probably also because these shortcomings were highlighted earlier.

- **Supervision** seems to be in place though a lack of and further need for **on-the-spot training and support** was expressed.

- **Transportation** seems to be a challenge for supervision, referral of patients, and even reporting (transport of monitoring reports to Freetown).

- **Reporting** was done at OTP and TFC level into large registration books and special sheets documenting case summaries. While available at PHU and district level, there are challenges to report back to central level when transport to Freetown is necessary to pass on the reports.

- Related to the reporting, there was an lack of reporting and knowledge about standard programme **performance indicators**, including percentages/ numbers for admission, cure, defaulting, death related indicators, as well as programme coverage. While the information seems to be generated at the OTP or TFC sites, collated information about these standard indicators could not be observed.

- A **CMAM working group** was active during the earlier stages of the programme but was not functional at the time of my visit. The importance to revive this group has been voiced by various agencies during the discussions I had. There also is a nutrition working group active within the country, which seem to have two subgroups, one for IMAM (to provide a continuum of care) and one for IYCF. It was not fully clear whether the IMAM sub-working group was the same as the CMAM working group. Concern does not participate in any of these groups. Groups that Concern currently participates in include the Health INGO Forum and the Health Development Partners Meeting that the GOSL invites to.

### 3.3 Scope for engaging in wider nutrition

**Chronic child malnutrition** is a key challenge within the non-emergency context of Sierra Leone. This is caused by food insecurity through a prolonged lack of an adequate diet and by usually frequent recurring illnesses during childhood.

**Dietary diversity** is fairly low with only half of all children consuming a diet that has four or more food groups on a day. While no focus groups have been conducted so far to explore relationships and causes in further detail, it can be speculated that the reasons for the poor diet are as follows, based on observations and discussions in the country:

- The nutrition surveys showed that in rural areas on the day before the interview, slightly more than half of all households (53.2%) bought their foods predominantly on the market, which was more than the those who predominantly consumed food from their own
production (31.6%). In urban areas, almost all households (94.9%) bought their food items on the day before the interview during both nutrition surveys. Therefore, half of the rural and almost all of the urban households in our operational area are dependent on favourable food prices.

- Even in case sufficient vegetables, fruits or animal source foods are available on markets, families are often too poor to access them and buy an adequately balanced diet. Vegetables and fruits prices are extremely high, especially after the increase in food prices in 2008 and are beyond the means of the people Concern is working with.

- In rural areas, conditions for agricultural production would theoretically allow the production of a wider variety of vegetables and fruits for household consumption. Most of the production, however, seems to be sold on markets for Freetown, priority is given to products that fetch higher prices over nutrition content and little is reserved for consumption among household members.

- Access to and availability of animal source foods is very low.

- There are not many fruit trees in the areas that we visited.

- Food preparation habits tend towards lower diverse diets: not many fresh vegetables or fruits seem to be included in the diet, i.e. the usually consumed sauces do not contain a large quantity of vegetables and for those that are added the cooking process is likely to destroy the nutrients that are not heat resistant.

- Food preferences for imported rather than local foods and terms of trade that seem to support export rather than consumption of higher quality foods.

- In urban areas, snacking of highly refined breads, sweets or soft drinks was frequently observed. These are assumed to be low priced in comparison to higher quality foods but besides mere energy do not have any nutritional value. With satisfied energy requirements, higher quality diets have been replaced by these. This may also be interpreted in relation to rising food prices.

There is great potential for improve infant and young child feeding practices\(^8\) within both urban and rural areas. While most of the children are breastfed at some stage, initiation of breastfeeding, duration of exclusive breastfeeding and initiation of complementary feeding could be improved. Unicef is eager to address sub-optimal IYCF practices within the country.

Besides the extremely high levels of maternal mortality in the country, maternal nutrition during pregnancy and lactation does not seem to be as prioritized as it could be. Maternal anemia is highly prevalent in the country\(^9\) and has to be routinely addressed to improve maternal survival. Sub-optimal maternal nutritional status is also likely to contribute to low birth weight in children, and high maternal mortality rates reduce child survival also because there is no mother to take care of the child.

### 3.4 Strength, weaknesses, opportunities and threats analysis

A SWOT analysis (internal strengths and weaknesses, external opportunities and threats) was conducted for two scenarios: 1. involvement in CMAM, 2. addressing chronic malnutrition, including food insecurity. The different elements for the two scenarios are presented below.

Please note that the SWOT analysis was done after gathering all information in country and that there was no discussion about in-country about the SWOT analysis in this specific format; various elements, however, were discussed in the in-country.

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\(^8\) This includes include exclusive breastfeeding (initiation, during), timely introduction of high quality complementary foods while supporting, promoting and sustaining breastfeeding well into the 2\(^{nd}\) year of life.

**SWOT scenario 1**: “What are the strengths, weaknesses, opportunities and threats for Concern to get involved in the CMAM project?”

**STRENGTHS:**
- health and country team eager to get more into nutrition activities
- implementing CMAM will greatly contribute to saving lives given the high prevalence of SAM and oedema cases
- Concern is already working with several health facilities in potential areas
- expanding the scope of the health sector project
- Concern’s global expertise via the country team to strengthen the national project
- raising Concern’s visibility in terms of nutrition at national level
- good linkages with other agencies through the Health INGO Forum and Health Development Partners meetings, some of who are also involved in the CMAM project

**WEAKNESSES:**
- currently no adequate technical capacity in the country team for nutrition to support Unicef and others in their efforts to improve child malnutrition within the country (need to recruit)
- no earlier/ recent involvement in nutrition networks etc. in country
- addressing relatively small numbers (acute vs chronic malnutrition)
- insecure funding situation within Concern

**OPPORTUNITIES:**
- need for CMAM in both of Concern’s working areas (high prevalence of SAM >2%)
- national protocol\(^{10}\) by MOHS for CMAM is already available
- CMAM project already on-going and considerable number of health staff trained
- at national level, need to improve the quality and technical capacity, which should trickle down to implementing organisations
- Unicef is pushing Concern to get engaged, very open and willing to work with us
- no complete area coverage within the country at this stage
- Concern has good relations with MOHS, Unicef and other agencies
- WFP has a wide network for their SFP project (presence)

**THREATS:**
- leaving out stunting (i.e. chronic malnutrition), which is a huge problem in the same areas and some of the children
- potential continued interruptions in the external supply of RUTF, therapeutic milks and other equipment
- challenges with MOHS staff, especially at PHU level: motivation/ incentives, capacity, availability
- dependent on functional health system and sufficient use by communities to address a high disease burden, especially within this non-emergency context
- currently insecure funding environment
- insufficient coverage of WFP’s SFP project within areas they are operating in
- transport issues cannot be solved sufficiently for referral

**SWOT scenario 2**: “What are the strengths, weaknesses, opportunities and threats for Concern to address chronic malnutrition, also linked to food security?”

\(^{10}\) MOHS (2007) Protocol for the management of severe acute malnutrition in Sierra Leone. MOHS & UNICEF, Freetown, Sierra Leone
STRENGTHS:
- addressing a highly prevalent nutrition problem in the country
- will ensure longer-term nutritional well-being and increase chances for better child development
- can contribute to preventing children becoming severe acutely malnourished
- good expertise and on-going projects in food security
- expanding the scope of the health sector project
- going beyond Concern’s core nutrition area at global level (i.e. CTC/ CMAM)
- high potential for innovation
- high potential for cross-sectoral/ more holistic programming

WEAKNESSES:
- severe acute cases still need a place/ programme to be referred for treatment according to protocol
- currently no adequate technical capacity in the country team for nutrition to support Unicef and others in their efforts to improve child malnutrition within the country (need to recruit)
- no earlier/ recent involvement in nutrition networks etc. in country
- need for coordination of activities between health & FIM sector likely, which might pose some challenges if not fully supported
- insecure funding situation within Concern

OPPORTUNITIES:
- chronic malnutrition is a large problem in the country (high prevalence of stunting)
- Unicef has made IYCF one of its priorities
- there are national guidelines\(^\text{11}\) for IYCF for the country that provide the framework for IYCF related activities
- EC as donor of PUCAF project voiced great interest in seeing nutrition problems being addressed
- an innovative approach to improve IYCF is to be tried out in the Sierra Leone

THREATS:
- dependent on operational health system and good uptake of services by communities to address high disease burden
- currently insecure funding environment

3.5 Analysis of selected agencies operating in the sector

This is a brief overview of the activities of the various agencies that are involved in CMAM or are planning to do so.

\* Unicef
Unicef has been the lead besides the MOHS in running the CMAM project. As I understood, they initiated the programme in 2007, had brought in consultants as well as Valid International for training. They organised the supplies and were involved in monitoring and supervision in all of the areas as well as at central/ national level. The Nutrition Manager at Unicef had changed since the inception of the project and the new one who arrived in June seems to be extremely dedicated, open to innovation, thinking big, determined to make a

\(^\text{11}\) Division of Food and Nutrition (MOHS) in collaboration with WHO and HKI (2005) Guidelines for infant and young child feeding in Sierra Leone, with emphasis on infants of HIV positive women.
MOHS, Freetown, Sierra Leone
difference during his three years in the country and he already started to address some of the current gaps of the programme. He would be very supportive of Concern getting involved in CMAM (or potentially other nutrition activities). Unicef is responsible for the RUTF supply and there were huge deficits and breaks in the supply chain, both visible during my visit and earlier during the midterm evaluation by Valid International. While the earlier RUTF shortage was due to the large demand during the emergency in the horn of Africa, there current shortage was due to a delay in the freight ship for about two to three months. At the time of my visit, shortages in F100 and F75 therapeutic milks were also reported at some sights or by some agencies I had discussions with.

Unicef are fully aware of the supply shortages, both the nutrition products as well as the medical drugs, and they also know about well performing and less well performing programme sites/PHUs. There are some issues about salaries and some challenges around the attitude of some people to try keep longer term in-patient management of SAM alive at TFCs instead of phasing over to more short-term treatment at SCs, which results in fewer incentives for some health care staff. Further challenges include the harmonisation of OTP and SFP sites so that children discharged from the OTP can easily be admitted to the SFP without disruption of the continuum of care.

Unicef is further trying to start a rural programme of blanket nutributter distribution and an urban programme distributing Bennimix, a locally produced sesame seed-based nutrition product, to prevent malnutrition in young children and have an impact on stunting (chronic malnutrition).

**CRS**

CRS' CMAM activities are integrated into a larger food security project that they are working with in partnership with CARE, Africare and WorldVision. They implement the project within an MCH component within the larger food security project in selected chiefdoms of two districts, Koinadugu and Kailaan Districts. The project covers the curative part of addressing malnutrition while other approaches are used prevention of malnutrition (incl. PD/H). Their programme screening data reveal about 10% of children suffering from SAM when using MUAC; this needs to be looked at carefully because it is much higher than any national values etc and there is likely some sort of selection bias in data as the data may not be representative of the overall population but biased towards a malnourished population pre-selected before actual screening took place; SAM values therefore might be lower in reality. CRS directly implements the current project, which is an exception to CRS' usual approach of implementing through partners.

They seem to be doing an organised and structured job with close monitoring of field level activities, regular and tight supervision of staff in the field and they recognise and address challenges that arise within the context. Referral of children with medical complications seems to be a challenge: there is no TFC or SC in the area and the only possibility is in that area is to refer children to the district hospital in Koinadugu District or the MSF TFC in Bo; CRS, however, cannot provide for any transport fees for the referred patients but caretaker usually still go with their referred sick children due to the additional food rations that MSF provides to caretakers and siblings at the TFC. They do have some form of electronic data storage system though it does not resemble the typical CMAM data base. Coverage has not yet been assessed but they assume that their monthly GMP sessions are attended by 80% of the children in the area. There is no SFP linked to the activities and children are discharged on MUAC.

**CARE Sierra Leone**

Care also implements parts of the larger food security project alongside with CRS, Africare and WorldVision. They have child survival activities in selected chiefdoms of Koinadugu and Tonkolili District but they currently do not have any CMAM activities. About the work in
Tonkolili, the Health & HIV Coordinator mentioned the great potential of now working with a new DMO in the district. Care themselves had two consultants in the country who were helping them about their new project planning, which was very much about programming within the so-called window of opportunity, i.e. targeting pregnant (& lactating mothers) throughout pregnancy and children up to the age of two years in order to prevent children from deteriorating in their nutritional status during early stages of their development. Programme activities are related to IYCF, responsive feeding, dietary diversification, cooking practices, etc.

CARE is considering training and using the community mobiliser network within their current project areas to start screening children for severe acute malnutrition and refer them into OTP sites. While this is a great idea and probably fairly easy to implement, there may be problems when there are no OTP sites in the area actually or they are so far away that people would not be able to reach there without transport support. Also, the subsequent increase in the caseload at facility level needs to be considered before major screening activities will be started in order to not overload the system as this might lead to reduced quality of care and loss of trust into the project among the communities.

**WFP**

WFP have three nutritionists who are involved in their SFP programmes. The SFP covers pregnant & lactating women and usually malnourished children below the age of five years while in some areas WFP started to concentrate on children aged 6-23m. They currently cover 385 PHUs and are soon to start in the Freetown area where they have not been operational so far. The project is contributing to the on-going CMAM project and they coordinated their beneficiaries planning according to expected discharges from the OTP sites so that there is an easy transition into the SFP component. While not mentioned by WFP, Unicef was critical of the current process and mentioned that only a fixed number of children via a waiting list have been able to enter the programme because of resource limitations.

This obviously may result in disruption of the treatment and is in direct contrast to what WFP outlined. In Tonkolili District, WFP currently covers 35 PHU sites with their SFP activities. This is seven times higher than the number of PHUs the CMAM project targets; the SFP activities at PHU sites may also contribute to attracting a larger population to the health facilities. Further relevant activities include deworming activities that they claim covers half of all children below the age of five years; food security activities around food production; and BCC. WFP emphasized their M&E activities and processes during our meeting; there are specially dedicated M&E staff who monitor their activities and Ms Jyoti mentioned that she was actively emphasizing the importance of monitoring in meetings with the Government and other agencies.

**MSF**

MSF Belgium is still present in the country and is currently running a TFC in Bo. They are gradually reducing their presence in the country, e.g. MSF Holland who established the TFC in Magburaka during the emergency recently left the country. MSF/B are providing food for caregivers and siblings at the TFC in Bo. I had not had a chance to talk to them in detail and I was unable to obtain the evaluation report of the Magburaka TFC before MSF/H left.

**Valid International**

Valid had been instrumental in the setup phase of the project in 2007 as described briefly above and outlined in further detail in the setup report of the CMAM programme\(^\text{12}\); they also conducted the midterm evaluation in June 2008\(^2\). They also seem to be playing a role in a

planned coverage survey and end evaluation of the CMAM pilot phase districts together with the MOHS.

❖ Ministry of Health and Sanitation

The MOHS at district level has assigned nutrition focal points that are responsible for the nutrition activities within the district. They report to the DMO, and their responsibilities seem to include timely distribution of supplies to the PHU/CAMAM sites; on-site monitoring and supervision on a weekly schedule; monitoring and supervision of food supplies and ordering of new nutrition supplies and equipment from Unicef; on a monthly basis, collating reports from the various sites within their district and overall reporting to the MOHS and Unicef in Freetown via the DMO. Mr Okalla in Tonkolili District stressed the challenges around transportation that make his job extremely difficult.

He has coordinated his visits to the different PHU sites according to a schedule that Concern staff have in going around the area so that he is able to get a lift and transport for supplies. Obviously this is not a good and sustainable solution and is also not practical should he want to do any surprise monitoring/supervision visits to sites etc. Another challenge is the payment of health care workers: often they do not receive a salary and if so it may be inappropriately low. This then triggers health care workers to use alternative income sources that may also be in the grey area or against policies.

At national level, the Food & Nutrition Programme Manager as long-term experience in nutrition within the country. The MOHS, especially through her position, was involved in the planning and setup of the CMAM project and is involved in all stages of the project, which is integrated into the MOHS PHU system. The MOHS will be involved in the end evaluation and coverage survey of the four districts where the CAMAM pilot activities were started. Challenges seem to be around infrequent reporting from the fields, staff shortage and capacity, transportation issues. Ms Scott was aware of various supply shortages, informed about well and less well performing sites and saw gaps of the programme in transport capacity for referral, steady provision of supplies, among others. While recognising the issue of TFC within the CMAM programme instead of SC this is a somewhat lower priority for her to address as she would first like to establish SCs in districts without a TFC before transitioning the TFCs into SCs.

❖ Agencies in general

During my discussions with varies agencies I was sometimes a little puzzled about the technical background in CMAM and nutrition programming because of some fairly basic issues that seemed to be unclear. I.e. project performance or coverage pretty much throughout all meetings was not seen as something to be based on programme statistics from CMAM database-like information (performance, i.e. percentage of children who were cured, who defaulted or died) and in terms of admitted children in the programme per overall children that are suffering from SAM (coverage). These standard terms were understood only after some explanation. Furthermore, the need for sufficient OTP sites to actually refer to and available capacity to care for increased numbers of children from intensified screening was somewhat not fully recognised by an organisation that wanted to get involved in CMAM and to strengthen the community mobilisation part of the project.

If there is no OTP, an increase in screening and referral activities may actually harm the project because it could have a negative impact on the reputation of the project among the communities. (For a list of OTP site please refer to Appendix 4.) Another recurring issue was that it was virtually impossible to find out about the real objectives of the pilot project that was started in November 2007. Even though the CMAM programme had already moved beyond the pilot phase it was somewhat puzzling to see that there was some lack in clarity why the initial pilot was implemented and what the objectives were.
With these, at least perceived, **gaps in technical awareness and knowledge** among the key implementing agencies or those who were interested to take on CMAM in the futures, there is an urgent need to ensure sound technical awareness and understanding among key implementing and managing staff at all levels within agencies already implementing CMAM or planning to do so. This is echoed by Unicef’s ‘wish’ to have effective and efficient programme implementation. It would obviously include Concern because we currently do not have solid CMAM knowledge or capacity at country level and thus would run a very similar risk of implementing the approach without properly understanding it. Therefore, if we get involved we should do so at a technically sound and competent level only that will ensure best programme delivery at high standards.

### 3.6 Staffing and staff capacity

The current Concern health team does not have any specialised nutrition capacity, which is vital if the country office decides to take up nutrition programming. This would at least mean recruitment for (a) national nutrition position(s), while depending on the scale and type of activities there is a likely need for an international nutrition position in addition to the national counterpart given the low number of nutritionists within the country. A final decision has to carefully consider the nature of the new health sector programme and project needs therein.

One health team member has already shown keen interest in being training further in nutrition, which is very good as current capacities of the programme are built through this. She has already gathered information on suitable short-term training courses for nutrition. However, even with such training there will not be sufficient capacity within the current team for running a nutrition project or providing higher level technical support to the MOHS or Unicef for implementing the CMAM project.

Linkages to staff from other sectors, especially the FIM sector, will have to be made should nutrition activities be included that are aimed at addressing food insecurity as one of the underlying factors of malnutrition.

The HSU within SAL is able, to a reasonable extent, to technically support the country health team remotely through desk support (email, skype etc) and directly during country visits.

### 4. Options and recommendations for implementation and the new sector programme

Most of the recommendations have been discussed in principle with the country team during the visit; during the stakeholder presentation various ideas were presented in form of identified needs though no implication was made that these would all be taken up by Concern in Sierra Leone.

#### 4.1 Option and recommendations to engage in nutrition related activities

The following two sections lay out what nutrition related activities would be an option for the Concern Sierra Leone team to include in the new programme strategy. I tried to present these as options so that the team could make a decision based on the information presented. They may be considered in combination or separately.

#### 4.1.1. Options and recommendations for engagement in CMAM project

In terms of engaging in the Sierra Leone CMAM project, the following **parameters** need to be considered in addition to the information summarised in section 2:

*Concern Worldwide*
- does not really want to engage in direct implementation
- has no current nutrition capacities within the health team
- is currently implementing health programmes but no nutrition programme
- is currently working in five chiefdoms in Tonkolili District and in six slums in Freetown
- seems to have good working relations with the government, especially at district/ local level

**Unicef**
- is in need of reliable partners who are willing to implement CMAM in a larger area with full coverage going well beyond convenient, usually covered areas, i.e. efficient and effective implementation of CMAM within a whole district instead of several chiefdoms
- these partners would ideally provide technical support to the PHUs without establishing a parallel structure
- Support would be needed at all level and especially at district level but also coordination with other partners so that a continuum of care can be guaranteed
- needs a technically sound partner with strong commitment
- would like to see national level engagement too

**CMAM requirements in general**
- despite a very undeveloped health system, the integration of CMAM into the national health system should be one of the ultimate goals
- standard or above standard project performance must be aimed at, i.e. programme coverage, proportions of children cured/ defaulting/ dying within/ exceeding standard performance parameters
- programme coverage (admitted children/ SAM children) should be ensured according to Sphere standards. d
- sufficient decentralisation across the whole area so that reaching OTP sites is possible within a day’s (return trip) for any potential beneficiaries; innovative transport mechanisms should be sought if distances between villages and inpatient (SC/ TFC) are still too large; this will also improve the ability of the programme to follow the triage system that is key for a successful CMAM programme.
- good community mobilisation so that screening process is functional; adequate capacities and supplies at the OTP and in-patient facilities so that triage is possible and adequate treatment can be provide
- links to a strong SFP must be guaranteed so that children discharged from the OTP are able to enter an SFP for continued nutrition support. There should be no time lag been the discharge point of time and admission to the SFP as this would increase the risk of the child relapsing.
- good monitoring, supervision, subsequent support and reporting needs to be emphasised to be able to identify gaps, to address them adequately and to know about the project performance.

Considering these, there seem to be two main options for Concern to engage in CMAM

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<tr>
<td>1.</td>
<td>The <strong>one model district</strong> approach to implement/ support implementation of CMAM in one (max two) areas with the aim of achieving good programme performance within a fairly confined area and documentation of setup for improved learning for other districts, and/ or</td>
</tr>
<tr>
<td>2.</td>
<td><strong>National level support</strong> of the CMAM project to strengthen the quality of the overall national programme.</td>
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1. During the visit, the **one model district** (or two districts) for setting up CMAM as discussed with both the country team and Unicef in more detail and also mentioned
during the stakeholder presentation as a possible model for Concern to engage in CMAM. This was envisioned as follows:

- **Implementation** of CMAM in one or max two districts. While Concern seems to prefer Tonkolili District, Unicef voiced their preference for Concern to engage in the Western Area due to existing problems in the distribution and management, etc.
- Implementation should be in **partnership** with either existing local NGOs and/or the MOHS. This should also include strengthening of involvement by the Government at multiple levels.
- this is also related to promoting the **integration of CMAM into the existing District health system**, which is important within this non-emergency situation and important for the sustainability of the overall project.
- sufficient **decentralisation of OTP** sites should be emphasised according to the national protocol and stabilisation centres should gradually replace any TFCs so that there are fewer long-term in-patients in the programme and more children treated through the outpatient facilities, which is one of the key advantages of the CMAM approach. This will help with the following:
  - reduce the workload of existing inpatient facilities
  - ensure better triage
  - ease transportation needs for participating families
  - ensure good referral between OTP and SC/TFC sites.
- **In-depth discussions with WFP** to synchronise efforts, targeting and outreach, also because of their high area/PHU site coverage within Tonkolili District that by far exceeds that of the current CMAM project. Outreach to these sites will provide valuable lessons for improving decentralisation within the current CMAM system.
- **Documentation** of the process and all the lessons learned along the process would be beneficial for other districts. Due to the very quick expansion of the CMAM project into all districts in the country, there seems to be a certain lack of programme quality as well as coverage. Many areas will possibly need substantial further support to achieve adequate decentralisation and site coverage to reduce the burden on the existing TFCs, ease transport problems and improve programme coverage in terms of SAM children admitted. Such documentation should include (but not be restricted to) the following:
  - support of the government at both national, district, chiefdom/PHU level,
  - decentralisation of existing service facilities and increased ‘density’ of facilities throughout an area,
  - capacity building of health care staff,
  - community mobilisation and screening
  - referral and triage at community, PHU/OTP and TFC/SC level,
  - supply chain and management (including stores): timing and continued provision of RUTF, medical drugs and other equipments,
  - monitoring and supervision: on-going monitoring, adequate registration process,
  - reporting: timely, mechanism to ensure that reports are reaching higher level departments in time, including Freetown MOHS and Unicef,
  - once sufficient OTP density and capacity is achieved, replacement of TFCs to transition to stabilisation centres with reduced lengths of stay.

This documentation should then be used and shared among other agencies as a guiding tool to replicate any upscale and intensifying of CMAM activities in other districts that have not done so earlier.

- **Strengthening of regular flow of food supplies** to all OTP and TFC/SC sites. This is obviously essential for project implementation but also for maintaining a high reputation about the project among communities. This should involve regular communication with
Unicef about estimated supply needs so that Unicef can consider this well ahead in their planning and shortages be avoided.

Local/ regional production should be supported in any way, however this is viewed more secondary and should be addressed once the whole system is working to high standards.

- **Reporting**: this should take place at multiple levels, possibly and ultimately through a regular health information system or be integrated into any governmental reporting. Analysis with a fast turn-around time and adequate subsequent actions should follow the reporting. The project should aim at establishing an electronic CMAM data base if possible, which would increase clarity about performance and beneficiary numbers greatly. Innovative methods may be tried out for this to work.

- The ‘one district’ model project should be properly monitored and evaluated by itself. A coverage survey should be conducted so that evidence is generated rather than anecdotal information or assumptions about coverage be made.

- **Capacities of OTP and TFC/ SC sites** should be planned carefully considering the potential number of children that need to be admitted when screening at community level has been optimised.

- Provision of other equipment, including OTP & ration cards

2. **National level support**

- If the country team decides to engage in CMAM, national level support should be among the activities regardless whether we are implementing the project in any area or not. I would assume though that is it easier to provide good national level support if the team also has implementation experience (direct or through partners).

- Concern Sierra Leone should intensify the relationship and discussions around nutrition with Unicef in the country who have taken on the lead role in both CMAM as well as IYCF.

- Concern should participate in the nutrition-related working groups that are going on in the country (nutrition (IMAM, IYCF), CMAM). If the CMAM or IMAM group will not be active any longer, revival of these or any other group that is able to take on coordinating function should be established. Any such group should serve as a sharing platform, a forum to plan and coordinate among partners, to discuss and try to address any problems and shortcomings and to monitor project performance over time. It should bring all partners involved in the CMAM project together, i.e. the MOHS (various levels), Unicef, implementing & advisory agencies.

- Technical competency: the Concern team should ensure that implementation or participation in the CMAM project occurs with very good understanding of the approach among key staff so that we are able to work towards high quality programme performance. Related to this, refresher trainings, close monitoring, supervision and on-the-spot training are likely to be needed at regular intervals so that health personnel provide treatment and care to children correctly and according to protocol. Obviously, supply shortages will need to be resolved as otherwise health care staff will not be able to provide the correct treatment.

- Scale-up and intensifying activities within any districts should be carefully planned at all levels. This must be promoted when providing any national level guidance so that the roll-out will be optimal.

- Advocacy for regular payment of health care staff.

- Therefore, the Concern country team should discuss these options to see what would be the best suitable option given the needs and context within the areas/ districts and our programme.

- Following a decision, and if positive, Concern should have in-depth discuss with Unicef option for the best way forward. Potentially this might be a proposal submitted to Unicef – either within a usual call for proposals or a tailored proposal around the engagement and collaboration in the CMAM project.
4.1.2. Options and recommendations for addressing food and nutrition security

Specific components to improve **nutrition security should be integrated into on-going food security projects** if possible and/or they should directly be built into new ones. This potentially means for programmes to consider in more detail:

- the earlier developed conceptual frameworks
- increased focus on (production of/) availability of foods for own consumption with high nutritional quality, e.g. animal source foods (eggs, meat, organs, milk), diversity of vegetables and fruits. This could be achieved through improving access to food in areas with sufficient supply/production of foods or through increasing availability of foods in areas without sufficient supply/production. Sufficient production seems to be the largest issue in rural areas, while in urban areas it means a lack of access to affordable, good quality foods when people have to rely on money to buy foods instead of producing them at their homestead.
- improvement of dietary diversity, especially emphasizing increasing consumption of animal source foods and promotion of a well-balanced diet
- exploring options within the community to increase production of vegetables, fruits and certain animal source foods and consumption of self-produced foods at household level when ‘usually’ most of these high quality foods are sold to markets for Freetown
- activities to improve food preparation (nutrient preserving cooking practices), guidance on choice of foods, food storage & safety
- addressing/considering potentially unequal intra-household food distribution
- focus on optimal infant and young child feeding practices and nutrition during pregnancy and through lactation:
  - optimal breastfeeding practices (within first hour, exclusively for first six months, continued until child is at least two years old, increased fluids and breast milk during diarrheal episodes and sickness)
  - active and attentive feeding practices as soon as weaning foods are introduced
  - linkages to micronutrient supplementation to pregnant and lactating women (iron/folic acid supplementation, postpartum vitamin A supplementation)
  - linkages to national deworming programme (pregnant and lactating women, children above 12 months of age) and advocacy for sufficient coverage of lower serviced areas if apparent
  - focus on young children, e.g. 0-23 months of age
  - Unicef is placing emphasis on the improvement of IYCF practices. It would be a good option to support their efforts.
- nutrition education/awareness sessions, including the above mentioned cooking demonstrations etc. but it should also include a good understanding of food barriers, taboos etc that would need to be addressed in a culturally appropriate way if the practices are harmful.
- support of other efforts by Unicef, e.g. blanket feeding/distribution of nutributter, Bennimix (not fortified!) or other nutrition products or approaches such as the Baby’s restaurants for fortified porridge supported by GAIN, or piloting new ideas that are used to prevent children aged 6-23m to become malnourished (incl stunting), if possible, within our project area districts.

The problem of the **double burden of malnutrition** (co-existing under- and overnutrition) cannot be ignored in the urban areas. This is a phenomenon that is more and more seen in urban, including poor, areas in general. The problem is especially grave in populations among children who are stunted and also adults who suffered from malnutrition during their childhood and who now have enough resources to afford a diet with more than sufficient energy. Even though the percentage of children who were overweight was still relatively low in the nutrition surveys, this is a problem that more
and more and more emerges in poor urban areas, especially if chronic malnutrition persists for generations.

- Any urban nutrition projects therefore, should, at a minimum, modify any BCC strategy accordingly, which could be an effective though very low cost measure. Potential messages could emphasize
  - a balanced diet (which is valid for both under- and overnutrition), e.g. increasing the amount of vegetables, fruits and animal source foods to be consumed on a regular basis.
  - the kinds of foods that have no nutritional benefit and that should be avoided if possible, including soft drinks or other drinks that contain excessive amounts of sugar (e.g. coke, Fanta, Sprite, fruit nectars etc.), sweets, foods with excessive fat contents.
  - awareness about how to best use scarce household income – based on observations, it seems that a lot of money might be spent on sweets and unhealthy snacks. This money could better be spent on e.g. some fresh fruits.
  - Note that activities like this would be best done together with community-based vendors or shops where people usually buy the foods or sweets and soft drinks so that they might adjust their stock accordingly to support any efforts. This is likely to be a huge challenge, which however might be overcome by raising awareness about the consequences of overnutrition.

- Health team (and with support from FIM team): update of the conceptual frameworks on malnutrition and food insecurity that were generated during the visit with those that were generated during the planning of the urban food security project where there are overlapping areas. Afterwards, regular revision of the framework to ensure that they are always up to date to inform about the overall picture and environment of food and nutrition security activities. Finally, using them to identify helpful pointers on issues that should be prioritized/ addressed.

- If nutrition is taken up within the next health strategy, Concern should be represented within the on-going working groups related to nutrition, i.e. CMAM and nutrition (IMAM and IYCF) working groups. The revival of the former may be necessary to initiate if deemed useful by agencies involved in CMAM.

- Interventions in urban but also rural areas should always analyse the potential need for water, sanitation and hygiene activities as these are often closely related to the disease burden, which has an impact on nutritional status.

- Last but not least, all health & nutrition services should primarily targeted at the poor and especially extremely poor people. Naturally, there may be overlap with less poor population groups but efforts should be concentrating on inclusion of the (extreme) poor. For improved planning around this, the EPAF (Extreme Poverty Analysis Framework) that SAL is currently developing may be of help.

4.2 Staffing and staff capacity

- Adequate staff capacity in terms of nutrition programming is needed as pointed out above, which the country team currently lacks because there have not been any nutrition activities going. Depending on the scale and type of the programme it is likely that an international nutritionist is needed because of the low number of nutritionists in the country. The international nutritionist who would then work with a national counterpart(s).

- There needs to be a budget for this when a recruitment decision is made.

- Halima Massaquoi of the health team has already showed interest. She should be supported in for (short-term) training in nutrition as discussed; this could potentially lead to the national counterpart position if an international recruitment will be take place. On the other hand, further national options should be explored, too.
- To keep costs low over a longer period of time it might be sufficient to limit the international position to the initial 2 years of the project (assuming a 3-5 year project duration). This, however, again depends entirely on nature of the project and the availability of local capacity and potential for capacity building.
- Engagement of an HSU Nutrition Advisor for conceptualisation and planning is vital, especially with the current clear gap in staff nutrition capacity; however, our time may sometimes be limited due to other commitments or the current economic situation may not allow support to the extent necessary so advance planning is helpful.
- Furthermore, adequate staff capacity in monitoring and evaluation is needed to in order to track progress and ultimately measure impact. This is especially important because nutrition would be a new area for Concern to engage in so that good monitoring is necessary to identify shortcomings on a regular basis and be able to quickly resolve them.

4.3 Recommendations in relation to Health & Nutrition strategic planning
- Health team: follow-up about the final Sierra Leone DHS report (e.g. with UNICEF or USAID). Preliminary results of the SL-DHS have been shared in-country, so it would be good to try to obtain a copy of these if the final DHS report has not been finalised at the time of the sector planning. It is not yet available on the DHS website () as of 18th March, 2009. When available, please also share a copy with HSU focal persons (Michelle Kouletio, Gudrun).
- Health team: findings from the SL-DHS, the EU Rapid Food and Nutrition Assessment, and the midterm evaluation of the CMAM project might be useful to consider during the health and nutrition programme strategy planning. Depending on timing, the end evaluation and coverage survey of the CMAM initial districts may be available as well.
- Health team & HSU: community-based management: also based on our experience in Rwanda, we may want to consider CBM as a potential approach within the new health programme strategy – if this is technically suitable for what we are planning to do. Further information about this should be gathered, however, before a definite decision is made.
- Health team: use of the updated conceptual frameworks (see 4.2 for update)
- Health & country team: need to decide on the location where the activities should be implemented, i.e. whether continuation of our current working areas or whether expansion to whole district is possible. This obviously is important for the way that we would get engaged in CMAM if so.
- Concern should explore options & opportunities how to engage on a regular basis in the national ‘Mami en pikin welbodi’ week that UNICEF organised for the week of 22nd November. This seems to be a good opportunity to participate, learn from others, share findings and promote our work and health or nutrition schemes on an annual basis.

4.4 Other recommendations
- Focus group discussions (FGDs) need to be conducted as early as possible; results or transcriptions should be shared so that they could be included in an updated version of this trip report. Mayor topics for the FGDs have been discussed with the teams following the visit and there were plans to conduct the FGDs.
- Regular communication via email and skype with the HSU health & nutrition focal points as necessary for further steps and future nutrition programme planning if nutrition is taken on board
- Any personal staff criticism should preferably be provided in private and in a positive and supportive way.
- Even though the importance to have a stakeholder’s debriefing was recognised, I felt that the turn-up for the meeting was fairly scarce but that the announcement at the same time had perhaps raised too high expectations (as discussed in-country) due to the fact that no results of the surveys were available at that stage. Furthermore, even while it was probably a strategic move to show that Concern SL is thinking about engaging in
malnutrition, the current lack of technical nutrition staff to follow up in country and attend meetings needs to be understood. So while trying to maintain or even increase our visibility we should also be committed to high quality programming.
List of Appendices

Appendix 1. TOR for visit
Appendix 2. Weekly schedule for training and data collection in Tonkolili District and six slums of Freetown
Appendix 3. List of people met during the visit
Appendix 4. List of OTP sites in Sierra Leone
Appendix 1. TOR for visit

The TOR is in a picture format pasted in its latest format so that comments that were given prior to departure from Dublin are readable without format change.

Terms of Reference

SAL Nutrition Adviser’s visit to Concern Worldwide, Sierra Leone

1.0. Introduction
In 2002 Sierra Leone emerged from a protracted civil war and decades of misrule. Civil war intensified the decline in social indicators rendering it one of the poorest countries in the world with a HDI ranking of 177. Poverty is endemic and severe with 70.2% of the population living below the national poverty line. Life expectancy is a mere 41 years and the adult literacy rate is 35.1%. Spending on health and education is among the lowest in the world. Infant mortality (170/1000) and maternal mortality rates (1,800/100,000) are the highest worldwide; nearly a third of all infants never live to see the age of five. (UNDP, 2006). The poor health indicators are partly due to the country’s extremely weak health system, which is characterised by lack of skilled health staff, inadequate finance, poor infrastructure, limited access in rural areas, limited availability and affordability of drugs, and socio-cultural and economic barriers to access and utilization of health services. The high cost of medical services is also a significant barrier for the community to access primary health care.

In 2007, the second post-war elections were concluded peacefully and a new government took over the charges. The overall situation continues to improve, however, many challenges remain. There are encouraging economic prospects with inflation now under control after remaining above double digits for most of 2007, greater macro economic stability and a GDP growth rate of a robust 7%, sustained by agricultural and mining production as well buoyant construction and service sectors. However, with a HDI ranking of 177, economic reforms have fallen short of alleviating widespread poverty despite some overall improvements.

2.0. Concern in Sierra Leone
Concern has been operational in Sierra Leone since 1996 with the focus upon emergency shelter, primary healthcare (including WATSAN) targeting IDP, refugee and returned centres. Since 2000 the emphasis has been away from emergency interventions to rehabilitation with an initial education projects providing teaching/learning materials to schools in Eastern Freetown. With security returning to the Provincial sites by 2002 Concern began its long term development interventions in Tonkolili district with a field office based at Magburaka.

Concern has shifted its approach in the past 4 - 5 years from a series of activities (2002-2005); to a series of three year projects (2006-2008); and now to a program approach (2009-). This has been guided by our strategic planning process phase I (GSP 2005-2007) and phase II (GSP 2006-2010). This has now resulted in the development of 5-year long (2006-2010), country sector programs for Education and Livelihoods (all interventions currently limited to Tonkolili District); and Health (Tonkolili District and Freetown urban slums). Concern is currently operational in 323 villages in rural Tonkolili district (education, health and livelihoods) and 6 slums in urban Freetown, Western Area District (only health programme). We have 108 national staff and 8 expatriate staff.

3.0. Sierra Leone Nutrition Situation
The country nutrition situation requires review considering the varying data available. The level of malnutrition in Sierra Leone is said to be improving. The Vulnerability Assessment and Mapping (VAM) survey (2005) supported by WFP and Multi Indicator Cluster Survey supported by UNICEF (Micds 2005) indicated that the malnutrition levels are high. In the

Comment [GSL]: Here seems to be some data available about malnutrition, and a careful secondary information analysis should be conducted, perhaps with supplementation from PNUD, to clarify if these information gaps exist before conducting a survey.
VAM underweight prevalence (weight for age) was 29.5% while in the MICS it was 31%. Wasting prevalence (weight for height) in the VAM was 15.1% while in the MICS it was 9%. Stunting prevalence (height for age) in the VAM was 40% while in the MICS it was also 40%.

The 2007 Ministry of Health Survey using the most recent growth standards from WHO (Anthrop 2005), indicated that underweight decreased from 31% in 2005 to 17.6% in 2007 (weightage <-2 SD). The percentage of children who suffer from severe underweight (<-3 SD) also decreased (from 8.5 – 7.2%), but the decrease was not significant. Comparing results from MICS 3 with the results from the 2007 survey using the previous, Centres for Disease Control/WHO 1978 growth standard also indicate that malnutrition levels have decreased. However, the decrease is less dramatic, from 30.6 to 24.3 (MOH March 2007). However, unlike chronic malnutrition and underweight, acute malnutrition seems to have increased slightly over the past two years, from 8.9% to 12% by ANTHRO standards and from 8.9% to 9.7% by EPI INFO (An Epidemiological software for data analysis) standards. These increases seem to be highest in Torkoi, Kenema and Western Urban Districts using ANTHRO standards with rates above emergency levels (15%). When other standards are used, other three districts including the aforementioned have acute malnutrition levels above 10% (Ministry of Health Rapid Nutrition status Assessment 2007). Although there are some secondary data available on malnutrition, the reliability and authenticity of these data need to be checked. The health information management systems in the country are very weak.

4.0 Country Response

In 2007, the Ministry of Health with support from UNICEF started piloting of the Community based Therapeutic Care (CTC). CTC affords the advantage of managing severe acute malnutrition in local communities and homes therefore increasing uptake and minimising hospitalisation, a major barrier to the treatment of malnutrition. UNICEF contracted the services of internationally renowned consultants (Prof. Michael Golden and Dr. Yvonne Grettley) to train national staff in the management of severe acute malnutrition both in health facility and community. UNICEF in collaboration with the Ministry of Health has also developed national protocols for the management of severe acute malnutrition (SAM). A country strategic plan on CTC is yet to be developed.

Ahead of implementation of CTC in Sierra Leone, UNICEF contracted the services of Valid International to support the national nutrition programme with setting up of CTC sites in 4 Districts. The programme has since been expanded and presently implemented in 5 Peripheral Health Units in each of 10 out of 13 Districts in the Country. UNICEF also provides basic drugs, and the therapeutic food.

Few challenges include the capacity of the districts to provide effective monitoring and supervision of the CTC sites in the districts which is why it is limited to just 5 sites per district within 10 miles radius from the District Town.

This initial programme run by the Ministry of Health and Sanitation with support from UNICEF will run for one year with strong possibility for extension. UNICEF has approached several International Non Governmental Organisations including Concern to present proposals for CTC implementation. Concern has been cautious to engage until a proper nutrition assessment is conducted in the areas targeted by Concern to get a better picture of malnutrition. Concern Sierra Leone also seeks an expert advice to lead and direct in an engagement in broader nutrition and determine what value could be added. CRS is one of the international agencies which have come on board is assisting and supporting the Ministry of Health and UNICEF in the set up of CTC in two districts.

5.0 Specific Objective

Toll for PBEI Nutrition Advisor's visit to Concern Sierra Leone/29 August 2008/Manoj
6.0. Specific Tasks

1. An in-depth briefing with the CO and ACOF at the beginning and end of the visit.
2. Develop a framework and design including methodologies and time line for nutrition assessment in the targeted districts – Tonkolili and Sierra Leone Area.
3. Conduct relevant trainings for the programme staff on nutrition assessment.
4. Support to analyse the data and draft the assessment report.
6. Meet with UNICEF, WFP, CRS who will provide invaluable information on the country situation, and their organizations position on CTC and will invariably be potential implementing partners in a CTC programme.
7. Meet with Ministry of Health personnel to gain their insights and strategic thinking.
8. Review National Protocols for intervention and assistance in assessing resource requirements, supplies and staffing.
9. Discuss with Country Programme Team, the synergies of CTC with other sectoral programmes of Concern in Sierra Leone.
10. Conduct a workshop for Concern staff to discuss key findings, pros and cons for Concern involvement in CTC in Sierra Leone within the local context and provide recommendations for the Country programme.
11. A workshop for Concern staff to discuss key findings, pros and cons for Concern involvement in CTC in Sierra Leone within the local context and provide recommendations for the Country programme.

7.0. Time Frame

Four weeks preferably from mid September 08 to mid October 08. Detailed itinerary will be sent on the approval of the terms of reference contained in the circular.

8.0. Expected Output

1. A nutrition assessment is conducted and a report is produced highlighting the key findings.
2. Relevant staff are trained in nutrition assessment.
3. The Adviser is expected to produce another report outlining:
   1. The viability/feasibility (for Concern) of engaging in CTC including opportunities and challenges.
   2. Assess and determine scope and levels of engagement in CTC at community, District or National levels.
   3. If necessary, give guidance on developing a pilot project proposal to potential implementing partners (drawing on Concern’s previous experience).
   4. Outline the human resource needs as well as other key elements of engaging in a pilot phase considering the levels of engagement.

9.0. Management of the Consultancy

The Adviser will report to the Country Director or his/her designate. In this case, it would be Assistant Country Director Programme. Concern health staff will accompany the adviser in all visits and meetings.

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**Page 3: [1] Comment [GS7]**

Gudrun Stallkamp 13/08/2008 17:15:00

Not sure if this is intentional. How is the actual survey envisioned to be conducted? Will you need any input from this area as well? Ie supervisory role etc. or do we have sufficiently experienced staff who will be able to help with this? Also, the number of people we'd have available for this, will determine whether we'd be able to conduct the surveys simultaneously or whether we have to use the same teams in both locations (which will prolong the time spent on doing the surveys).

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**Page 3: [2] Comment [GS8]**

Gudrun Stallkamp 13/08/2008 17:15:00

I would rather have this like this as I don't want to just analyze the data but relevant staff in doing this.

Also, based on my experience with survey reporting, I think it's ok to have a preliminary summary report out by the end of the assignment. In addition, I feel that strong commitment is needed by relevant staff/country office to finalise the nutrition survey reports. I'd be happy to assist this process later on from Dublin as well.

What do you think? Comments?

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**Page 3: [3] Comment [GS10]**

Gudrun Stallkamp 13/08/2008 17:15:00

Perhaps we should most importantly discuss within the health team whether any integration of CMAM is possible within our existing health programme. This should be discussed early on.

Also, this should be based on facts and not be pressured by UNICEF or the MOH (comment Lymoda).

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**Page 3: [4] Comment [GS12]**

Gudrun Stallkamp 13/08/2008 17:18:00

as mentioned above, think that a full report is unrealistic to produce within the duration of this assignment but a preliminary report with key findings could be done. Further commitment is necessary to finalise the report after the visit, potentially by the country office with ongoing support via email.
### Appendix 2. Weekly schedule for training and data collection in Tonkolili District and six slums of Freetown

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<tr>
<td>1.00 pm: Start of training</td>
<td>8.30 am – 4.30pm: Training for nutrition survey</td>
<td>8.30 am – 4.30pm: Training for nutrition surveys</td>
<td>8.30 am – 12.00 pm: Training for nutrition surveys</td>
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<td>Tonkolili data collection</td>
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### Appendix 3. List of people met during the visit and main purpose of meeting

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<thead>
<tr>
<th>Name</th>
<th>Position, affiliation, contact</th>
<th>Topic</th>
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<tr>
<td>Bondoi Kamara</td>
<td>HIV focal point, Magburaka Hospital, Tonkolili District</td>
<td>CMAM feasibility</td>
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<tr>
<td>Dr Dudley Pratt</td>
<td>Physician, Magburaka Hospital</td>
<td>CMAM feasibility</td>
</tr>
<tr>
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<td>Food Security Project Officer, European Commission, <a href="mailto:georges.dehoux@ec.europa.eu">georges.dehoux@ec.europa.eu</a>, +232.76.996676</td>
<td>Food security aspects</td>
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<tr>
<td>Dr Heidi Brown</td>
<td>Health Development Coordinators, GOAL Sierra Leone, <a href="mailto:progdevelop@goalsleone.com">progdevelop@goalsleone.com</a>, +232.76.541175</td>
<td>Stakeholder meeting participation</td>
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<tr>
<td>Jyoti Rajkundlia</td>
<td>Senior Programme Officer, WFP, <a href="mailto:jyoti.rajkundlia@wfp.org">jyoti.rajkundlia@wfp.org</a></td>
<td>CMAM feasibility, wider nutrition, food security</td>
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<tr>
<td>Kadiatu Jawara</td>
<td>MCH Aide at OTP site in Mabang, Tonkolili District</td>
<td>CMAM feasibility</td>
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<tr>
<td>Lenette Golding</td>
<td>Communications Advisor for ‘Window of Opportunity’, CARE HQ, <a href="mailto:lgolding@care.org">lgolding@care.org</a></td>
<td>CMAM feasibility, wider nutrition</td>
</tr>
<tr>
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<td>Special Advisor to CARE’s Initiative to IYCF in emergencies, CARE HQ, <a href="mailto:mary@nutritionpolicypractice.org">mary@nutritionpolicypractice.org</a></td>
<td>CMAM feasibility, wider nutrition</td>
</tr>
<tr>
<td>Mr Okalla</td>
<td>Tonkolili District focal person for Nutrition</td>
<td>CMAM feasibility</td>
</tr>
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<td>Sophie Laurence</td>
<td>Consultant, <a href="mailto:acfnutrition.slaurence@gmail.com">acfnutrition.slaurence@gmail.com</a>, +232.76.642882</td>
<td>CMAM feasibility, wider nutrition</td>
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<tr>
<td>Stefano Fedele</td>
<td>Nutrition Manager, UNICEF, <a href="mailto:sfedele@unicef.org">sfedele@unicef.org</a>, +232.76.912422</td>
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<tr>
<td>Sue Clarke</td>
<td>Health coordinator, IRC, <a href="mailto:sue.clarke@theirc.org">sue.clarke@theirc.org</a></td>
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<tr>
<td>Suzanne van Hulle</td>
<td>Health Program Manager, Catholic Relief Services (CRS)/ Sierra Leone, <a href="mailto:svanhulle@sl.waro.crs.org">svanhulle@sl.waro.crs.org</a>, +232.76.610604</td>
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<td>Sylvetta Scott</td>
<td>Food and Nutrition Programme Manager, MOHS/ GOSL</td>
<td>CMAM feasibility, Government point of view on nutrition and nutrition activities</td>
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<tr>
<td>Yuki Suehiro</td>
<td>Health &amp; HIV/AIDS Coordinator, CARE International in Sierra Leone, <a href="mailto:ysuehiro@sl.care.org">ysuehiro@sl.care.org</a>; +232.76.698214</td>
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<td><strong>Concern staff from the livelihoods team</strong></td>
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<td>Dennis Yankson</td>
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<tr>
<td>Tayo Alabi</td>
<td>Livelihoods Coordinator, Concern SL</td>
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Appendix 4. List of OTP sites in Sierra Leone.
Note that information on the type of the facility was only available for the Northern Region.

<table>
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<th>REGION</th>
<th>DISTRICT</th>
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