Community-based Therapeutic Care

CTC

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• Treats majority (85%) of severe acute malnutrition at home not in hospitals
• Helps people in their villages rather than them coming to centres
• Works through local people
• Uses locally produced therapeutic products
Aspects of acute malnutrition

1. Economic deprivation
   - Poverty
   - High work loads (esp. Women)

2. Social exclusion
   - Clustered in poorest families
   - Malnourished siblings

3. Re-occurring
   - Chronic vulnerability

4. Individual pathological changes
   - Reductive adaptation
   - Immunosuppression
CLINICAL FOCUS

Coverage, (access & participation)

High costs to target population
- Low coverage
- High default rate

High risk
- Congregation

Individual treatment

High cure rates?

CTC presentation for HPN 26/04/05

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MAXIMISE IMPACT

SOCIAL FOCUS
CTC

Coverage, (access & participation)

Hard choices

CLINICAL FOCUS (TFC)

Individual treatment
CTC contains 4 basic elements

- Social mobilisation / participation
- Supplementary feeding (SFP)
- Outpatient Therapeutic Care (OTP)
- Stabilisation Centres (SC)
  - Inpatient
  - Equivalent to WHO phase 1 TFCs
Classification of malnutrition
Traditional approach (WHO)

- Acute malnutrition
  - Severe malnutrition
    - TFC
  - Moderate malnutrition
    - SFP
The CTC classification of acute malnutrition

1. **Acute malnutrition**
   - With complications
     - Severe
   - Without complications
     - Moderate

**With complications**

- < 80% of median weight for height (≤2z scores),
- or bilateral pitting oedema grade 3
- or MUAC < 110mm

**Anorexia**

- LRTI
- High fever
- Severe dehydration
- Severe anaemia
- Not alert

**Inpatient care**

**WHO/IMCI protocols**

**Without complications**

- < 70% of median weight for height,
  - or bilateral pitting oedema grades 1 or 2,
  - or MUAC < 110mm

**Appetite**

- Clinically well
- Alert

**Outpatient Therapeutic Care**

**OTP protocols**

**Supplementary Feeding**

- 70–80% of median weight for height,
  - and no bilateral pitting oedema
  - or MUAC 110–125mm

- **Appetite**
  - Clinically well
  - Alert
The evolution of a CTC programme

Early stages
- Decentralised
- Supplementary feeding (SFP)
- Mobilisation and participation
- Outpatient Therapeutic (OTP)

Fully evolved
- Food security and other sectoral interventions
- SFP
- OTP
- Local RUTF production
- Mobilisation and participation
- SC
Access and coverage
The population close to the point of treatment

- Early presentation
- Less severe cases
- Few complications
- Easy to treat
Further from point of treatment

Later presentation
More severe cases
More complications
Harder to treat
Far from point of treatment

Late presentation
Severe and complicated cases
Difficult to address
Require intensive treatment
High mortality
High program coverage requires access
Results

11 programmes in Malawi, Ethiopia, N & S Sudan between 2002-2004
Outcome from all patients treated in CTC programs (inpatient & outpatient combined)

<table>
<thead>
<tr>
<th>N</th>
<th>Recovered</th>
<th>Default</th>
<th>Dead</th>
<th>Trans</th>
<th>Non-rec</th>
</tr>
</thead>
<tbody>
<tr>
<td>7,408</td>
<td>77%</td>
<td>11%</td>
<td>4.7%</td>
<td>5.3%</td>
<td>2.1%</td>
</tr>
</tbody>
</table>
Outcomes from CTC 2000 - 2003, (n = 7,408), & TFCs 1992-1998 (n= 11,287) against SPHERE minimum standards

- CTC: 77% recovered, 5% died, 11% default, 7% LTF
- SPHERE: 75% recovered, 10% died, 15% default, 0% LTF
- TFC: 65% recovered, 12% died, 18% default, 5% LTF

Mortality rate 50% lower than centre-based care
<table>
<thead>
<tr>
<th>Program</th>
<th>Partner</th>
<th>Date</th>
<th>Coverage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>N. Sudan</td>
<td>SC-UK/MoH</td>
<td>2001</td>
<td>30–64</td>
</tr>
<tr>
<td>N. Sudan</td>
<td>SC-UK/MoH</td>
<td>2002</td>
<td>&gt; 60</td>
</tr>
<tr>
<td>Malawi</td>
<td>MoH/Concern</td>
<td>2003</td>
<td>73</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>MoH/Concern</td>
<td>2003</td>
<td>78</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>MoH/SC-US</td>
<td>2003</td>
<td>78</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>MoH/Care</td>
<td>2004</td>
<td>56</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>IMC/MoH</td>
<td>2004</td>
<td>61</td>
</tr>
<tr>
<td>Malawi</td>
<td>MoH</td>
<td>2004</td>
<td>73</td>
</tr>
<tr>
<td>S Sudan</td>
<td>Concern</td>
<td>2004</td>
<td>82</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>MoH</td>
<td>2005</td>
<td>77</td>
</tr>
<tr>
<td>Darfur</td>
<td>Concern</td>
<td>2004</td>
<td>75</td>
</tr>
</tbody>
</table>
## TFC coverage in open situations

<table>
<thead>
<tr>
<th>Year</th>
<th>Region</th>
<th>Coverage</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996</td>
<td>Guinea</td>
<td>3.4%</td>
<td>(Van Damme 1995)</td>
</tr>
<tr>
<td>2001</td>
<td>N. Sudan</td>
<td>&lt; 20%</td>
<td>(nutritional surveys)</td>
</tr>
<tr>
<td>2002</td>
<td>Malawi (rural)</td>
<td>&lt; 10%</td>
<td>(nutritional surveys)</td>
</tr>
<tr>
<td>2003</td>
<td>Malawi (rural)</td>
<td>15%</td>
<td>(nutritional surveys)</td>
</tr>
<tr>
<td>2003</td>
<td>Malawi (urban)</td>
<td>39%</td>
<td>(nutritional surveys)</td>
</tr>
<tr>
<td>2004</td>
<td>Darfur</td>
<td>&lt; 5%</td>
<td>(nutritional surveys)</td>
</tr>
</tbody>
</table>
Cost of CTC
### Table 19: Tentative division of costs by CTC programme elements

<table>
<thead>
<tr>
<th>History of field programme</th>
<th>established</th>
<th>new</th>
<th>established</th>
</tr>
</thead>
<tbody>
<tr>
<td>Programme duration</td>
<td>3 months</td>
<td>10 months</td>
<td>5 months</td>
</tr>
<tr>
<td>Prevalence of severe malnutrition</td>
<td>4%</td>
<td>1%</td>
<td>0.4%</td>
</tr>
<tr>
<td>OTP numbers</td>
<td>339</td>
<td>1571</td>
<td>519</td>
</tr>
<tr>
<td>SFP numbers</td>
<td>3144</td>
<td>8164</td>
<td>7855</td>
</tr>
<tr>
<td>OTP cost/beneficiary (€)</td>
<td>255</td>
<td>257</td>
<td>301</td>
</tr>
<tr>
<td>SFP cost/beneficiary (€)</td>
<td>96</td>
<td>115</td>
<td>43</td>
</tr>
<tr>
<td>Combined cost/ beneficiary (€)</td>
<td>114</td>
<td>148</td>
<td>60</td>
</tr>
</tbody>
</table>

Ref. The cost of Selective Feeding - Cauldwell, R. & Hallam, A. in Community-based Therapeutic Care (CTC), ENN Special Supplement # 2, Nov 2004
### Table 21: Sensitivity analysis estimating the variation in cost/beneficiary as beneficiary numbers change

<table>
<thead>
<tr>
<th>Country</th>
<th>Actual no. of beneficiaries</th>
<th>+1000 beneficiaries</th>
<th>+2000 beneficiaries</th>
<th>-1000 beneficiaries</th>
<th>-2000 beneficiaries</th>
</tr>
</thead>
<tbody>
<tr>
<td>S Sudan</td>
<td>114</td>
<td>87</td>
<td>60</td>
<td>141</td>
<td>168</td>
</tr>
<tr>
<td>Malawi</td>
<td>148</td>
<td>132</td>
<td>116</td>
<td>164</td>
<td>180</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>60</td>
<td>53</td>
<td>45</td>
<td>67</td>
<td>75</td>
</tr>
</tbody>
</table>

Ref. The cost of Selective Feeding - Cauldwell, R. & Hallam, A. in Community-based Therapeutic Care (CTC), ENN Special Supplement # 2, Nov 2004
Conclusions

- Compelling evidence base that CTC works in emergency contexts
- CTC cost comparable or cheaper than emergency TFCs
- CTC becoming standard selective feeding intervention in emergencies
Future opportunities

- Local RUTF production
- Integration with HBC/PMTCT for PLWHA
- Standard element in primary health care package
Local production of Ready to Use Therapeutic Food (RUTF)

- Simple to produce in country
- Local crops (chickpea, sesame, soya, maize)
- Cheaper
- Stimulates agricultural production
- Cost efficient
CTC & HIV
CTC & home-based care

- Decentralised support provided in homes
- Effective diets & protocols tailored to HIV
- Reduced hospitalisation
- CTC as entry point for VCT
  - Trust
  - Reduces Stigma
- Nutritional support to allow people to access care
  - Ability to get to clinic
  - ARVs not suitable for moribund people
- Nutritional adjunct to ARV
  - Adherence
  - Nutritional support & treatment
A standard element in a Primary Health Care package

- Acute malnutrition has been ignored in $1^\circ$ HC
  - Lack of affordable or practical treatment options

- CTC provides affordable option
  - In Wollo Ethiopia & Dowa Malawi CTC becoming central component in PHC system
    - Coverage remains high
    - Cure rates remain high
    - Fraction of the cost of emergency CTC
Quality and Standards in CTC
Framework for standards and quality

- Code of practice
- CTC technical manual
- Training
- Core group of agencies with credible CTC expertise
- Environment for implementation
  - CTC in international & national guidelines
- Recognition of commitment to quality & standards
  - Donor engagement
Summary

- Public health approach to acute malnutrition
  - Often evolving from emergency response
- Maximise impact via coverage, access and appropriate level of care
- Results of 80,000 moderate and 8,000 severe cases very positive
- High potential for local management
  - Locally made therapeutic foods
- High potential to provide support to PLWHA
- Requires action now to ensure standards and quality