RUTF Supply Chain Workshop

Opening Remarks

Laura Rock Kopczak – Zaragoza Logistics Center
Jan Komrska – UNICEF Supply Division
Ready-to-Use-Therapeutic Food

• RUTF is used to treat SAM
• Most commonly it is a peanut-based paste with the following ingredients:
  – Peanuts, vegetable oil, milk powder, sugar
  – Vitamin mineral mix
• Advantages:
  – Allows community-based feeding
  – Babies like it
  – It stores well
• Product variety:
  – Common ingredients
  – Distinct packaging
## Top Countries With Highest RUTF Demand (UNICEF)

<table>
<thead>
<tr>
<th></th>
<th>2011</th>
<th>2010</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ethiopia*</td>
<td>4,779</td>
<td>Niger*</td>
</tr>
<tr>
<td>2</td>
<td>Somalia</td>
<td>4,197</td>
<td>Ethiopia*</td>
</tr>
<tr>
<td>3</td>
<td>Kenya*</td>
<td>2,782</td>
<td>Chad</td>
</tr>
<tr>
<td>4</td>
<td>Niger*</td>
<td>2,385</td>
<td>Sudan South</td>
</tr>
<tr>
<td>5</td>
<td>Pakistan</td>
<td>1,849</td>
<td>Somalia</td>
</tr>
<tr>
<td>6</td>
<td>Nigeria</td>
<td>1,384</td>
<td>Pakistan</td>
</tr>
<tr>
<td>7</td>
<td>DR Congo</td>
<td>1,357</td>
<td>Nigeria</td>
</tr>
<tr>
<td>8</td>
<td>Yemen</td>
<td>1,154</td>
<td>Kenya*</td>
</tr>
<tr>
<td>9</td>
<td>Sudan North</td>
<td>863</td>
<td>DR Congo</td>
</tr>
<tr>
<td>10</td>
<td>Chad</td>
<td>789</td>
<td>Sudan North</td>
</tr>
</tbody>
</table>

Top 10 countries represent 68% (2009) to 79% (2011) RUTF worldwide demand.
The Demand-Supply Network

- Global Humanitarian Organizations
- Global RUTF Suppliers
- In-country Humanitarian Organizations
- Local RUTF Suppliers

RUTF Programs
<table>
<thead>
<tr>
<th>Topics for this Session</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Background</strong></td>
</tr>
</tbody>
</table>
| **Managing Global Supply and Demand**  
Co-leaders: Jan Komrska (UNICEF), Peter Schaller (WFP), and Alice Bruneau (Nutriset) |
| **Matching Supply and Demand at the Country Level**  
Leader: Ann Allen (INSEAD) |
| **Making Local Supply Work: Capacity and Capability**  
Co-Leaders: Andrews Gunda (CHAI), Elaine Collins (Valid Nutrition) and Adeline Lescanne-Gautry (Nutriset/Plumpyfields) |
RUTF – “The Early Years”

- 1997: RUTF invented by Nutriset
- 1999: Community-based feeding protocol created
- 2001-2007: Pilots in Sudan and Niger
A SUPPLY CHAIN ANALYSIS OF READY-TO-USE THERAPEUTIC FOODS FOR THE HORN OF AFRICA: THE NUTRITION ARTICULATION PROJECT

Co-PI’s: Anthony So (Duke) and Jayashankar M. Swaminathan (UNC)

Recommendations

• Preposition buffer stock to reduce lead times
• Diversify the supplier base
• Increase collaboration with funding partners and across agencies
• Improve data quality for assessments of forecasted need
• Improve information flow

This study was commissioned by the United Nations Children’s Fund.
Expansion of Demand for RUTF

UNICEF RUTF Orders - Quantities (MT) and Ordering Countries

- Number of countries ordering RUTF
- Countries supplied

TOTAL

Number of countries ordering RUTF
## Expansion of the Supply Base

<table>
<thead>
<tr>
<th>Location</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
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</thead>
<tbody>
<tr>
<td>Africa</td>
<td></td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>7</td>
<td>9</td>
<td>10</td>
<td>11</td>
</tr>
<tr>
<td>Americas</td>
<td></td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>5</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asia</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Europe</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>11</td>
<td>14</td>
<td>19</td>
<td>21</td>
</tr>
</tbody>
</table>

By March 2012 UNICEF approved **21** RUTF suppliers:

1. Amwili, DR Congo
2. Challenge Dairy Product, USA
3. Compact, Norway
4. Compact, India
5. Diva Nutritional Products, South Africa
6. Edesia, USA
7. Hilina, Ethiopia
8. Insta, Kenya
9. JAM, Mozambique
10. JB/Tanaka, Madagascar
11. Mana Nutritive Aid Products Inc., USA
12. MFK, Haiti
13. Nutriset, France
14. NutriVita Foods Pvt. Ltd, India
15. Power Foods, Tanzania
16. PPB, Malawi
17. PPB, Sierra Leone
18. STA, Niger
19. Tabatchnick Fine Foods, USA
20. Valid Nutrition, Malawi
21. Vitaset, Dominican Republic
Approved suppliers by 2008

Vitaset

Nutriset

Global Supplier

Local Supplier
Approved suppliers by 2012

- Challenge
- Edesia
- Tabatchnick
- Vitaset

Local Supplier

- Nutriset
- Compact
- Nutrivita

Global Supplier

- Insta EPZ
- JB
- Diva

Hub (stock pre-positioning)
How do we measure success?

• Product is available timely – no need to postpone delivery dates
• Funds spent on shipping RUTF by AIR

![Graph showing RUTF Volumes and AIR Shipment Costs]

![Graph showing RUTF Sea and Air Freight Costs]
Managing Global Supply and Demand
Co-leaders: Jan Komrska (UNICEF)
Peter Schaller (WFP),
and Alice Bruneau (Nutriset)
UNICEF approved suppliers - 2012

Global Supplier

Local Supplier

Hub (stock pre-positioning)

- Challenge
- Tabatchnick
- Edesia
- Nutriset
- Vitaset
- Compact
- Nutrivita
- Insta EPZ
- JB
- Diva
# UNICEF Global and Local Suppliers

<table>
<thead>
<tr>
<th>Global suppliers</th>
<th>Local suppliers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Nutriset (France)</td>
<td>1. STA (Niger)</td>
</tr>
<tr>
<td>2. Vitaset (Dominican Republic)</td>
<td>2. Hilina (Ethiopia)</td>
</tr>
<tr>
<td>3. Diva Nutritional Products (South Africa)</td>
<td>3. Project Peanut Butter (Malawi)</td>
</tr>
<tr>
<td>4. Insta EPZ (Kenya)</td>
<td>4. Valid Nutrition (Malawi)</td>
</tr>
<tr>
<td>5. Challenge Dairy (United States)*</td>
<td>5. Amwili (DR Congo)</td>
</tr>
<tr>
<td>6. Tabatchnick Fine Foods (United States)</td>
<td>6. JAM (Mozambique)</td>
</tr>
<tr>
<td>7. Compact (India)</td>
<td>7. Power Foods (Tanzania)</td>
</tr>
<tr>
<td>8. Compact (Norway)</td>
<td></td>
</tr>
<tr>
<td>9. Edesia (United States)</td>
<td></td>
</tr>
<tr>
<td>10. Nutrivita (India)</td>
<td></td>
</tr>
<tr>
<td>11. JB/Tanjaka Foods (Madagascar)**</td>
<td></td>
</tr>
<tr>
<td>12. Mana Nutritive Aid Products (United States)</td>
<td></td>
</tr>
</tbody>
</table>
Matching Supply and Demand at the Country Level
Leader: Ann Allen (INSEAD)
European Supply Center Set up
MSF Coordination & Project Locations
supported all, or in part, by a Nairobi supply hub (as of 2010)
Making Local Supply Work: Capacity and Capability

Co-Leaders: Andrews Gunda (CHAI), Elaine Collins (Valid Nutrition) and Adeline Lescanne-Gautier (Nutriset/PlumpyFields)
Nutriset and the PlumpyField model

What is PlumpyField?
With the goal to share its know-how and technology with local manufacturers, Nutriset has developed since 2005, the PlumpyField® Network, a network of 12 entrepreneurs producing and distributing Plumpy’nut® and other RUF products.

Partnership model

- A continuous accompaniment of a dedicated team
- Research and Development
- Capitalization on production, quality, procurement experiences within the network:
  - Projects and cost mutualization within the network
  - Capitalization on the sourcing:
  - Empowerment of local manufacturers
- Foster a spirit of cooperation
Social impact first review:
• 400 persons are employed and trained locally with a salary 23% higher than in their former company
• Each entrepreneur is sustainable after 6 to 24 months of activity
• The development of agricultural sectors via the local procurement of raw materials: peanuts (800 tons), sugar (970 tons) and oils (870 tons)
• Transfer of technical skills: in agro-industry, analytical laboratories.
• Development of expertise: all the industries are meeting the international standards and have been successfully audited
• Valid Nutrition (VN) produce in Malawi and will soon start production in Ethiopia. VN's ready-to-use foods are currently supplied to a variety of international humanitarian agencies, local NGOs and national governments.

• VN use locally available ingredients wherever possible, which, together with employment from our production, helps to stimulate the local economy.

• Due to the generous funding received from Irish Aid, VN are currently well advanced in developing a range of new (and lower cost) RUF recipes made from locally available, affordable crops.
1. Market engagement

• Global demand forecasting
• Share market intelligence with developers and suppliers
• Supplier and pipeline mapping
• Specific advice to suppliers on product specifications, best practices in distribution and evaluations and registrations
2. **In-country engagement**

- Advocacy and education
- Decision support and analysis for new product adoption
- Facilitating evaluation and pilots
- Operational planning: network design, training and QA plans
- Development of supply chain management tools
- Resource mobilization
- Negotiation on price, service and maintenance
Local Supply

Local Inputs: Peanuts, vegetable oil, sugar

Imported Inputs: Milk powder, vitamin mineral mix

Packaging

Foreign Exchange

$ € Working capital

Urgent!

Funding Releases

Customer Orders

Production and Delivery
More Information

– Article by Jan Komrska for Field Exchange
– NutART Report:
– Financial Times Article:
  • http://www.ft.com/cms/s/0/edb873a2-d6ef-11df-aaab-00144feabdc0.html#axzz17S57QbYU
– Teaching Case & Note
  • UNICEF Plumpy’Nut Supply Chain
– Articles on
  • Innovating Aid in Humanitarian Operations
    – By Laura Rock Kopczak and Jayashankar M. Swaminathan
  • Impact of Funding Flows in Humanitarian Inventory Management
    – By Karthik Natarajan and Jayashankar M. Swaminathan