

Field Exchange

Emergency Nutrition Network

Special focus on infant and young child feeding in emergencies

- Donated infant formula and diarrhoea in Indonesia
- Legislative battle in the Philippines
- Handling unwanted donations in DPRK

Also

- Milling vouchers in Dafur
- Integrating CMAM in Ethiopia
- Value of local therapeutic milk in Mauritania
- Novel 'Cost of the Diet' method
- Financial speculation and rise in food prices



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Obituary

The ENN was very sad to hear of the recent and premature death of Dr Tom Marchione.

Tom had a long and distinguished career as a nutritionist. Having completed a PhD, he worked at the Caribbean Food and Nutrition Centre in Jamaica, Case Western Reserve University in Ohio and finally at USAID in Washington DC. Tom represented USAID on the UN Standing Committee for Nutrition for many years and was instrumental in securing funding for the ENN in the early years. A passionate advocate for the poor, hungry and malnourished, Tom brought a rare set of skills including anthropology, nutrition and statistical analysis, to his work. He was instrumental in showing how monetised food aid, if given to community nutrition programmes, had a better impact on nutritional status than free handouts of food.

Tom was always supportive of ENN's work and did all within his powers to secure funding for ENN activities. His encouragement and positive attitude to the ENN bred confidence and endeavour within our small organisation. He not only supported the work of Field Exchange, but also ENN infant feeding in emergencies activities and our early research into emergency supplementary feeding programmes.

His warmth and the generosity with which he gave of his time were traits that many of us found enviable. He was always accessible professionally and as a friend.

Tom made a significant difference and the world is a poorer place for his loss. We will miss him.

Jeremy Shoham and Marie McGrath

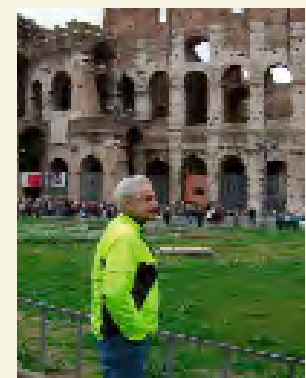
A recently published article by Tom – A Time to Rethink the Global Food Regime – has been reprinted in this issue of Field Exchange (p25).



Tom with Liberian vice-president, Joseph Boakai, a graduate of the College of West Africa, the high school where Tom taught as a Peace Corps Volunteer



Tom with his wife, Janna Marchione, this summer



A little 'sight-seeing' around the SCN meeting in Rome in 2007

From the Editor

Issue 34 of Field Exchange has a special focus on infant and young child feeding in emergencies (IFE) and is dedicated to the memory of Tom Marchione.

Leading the IFE 'show' is an extended field article from the UNICEF team in Indonesia, sharing their IFE experiences in the aftermath of the earthquake in 2006. On reading the piece you may well get that 'deja-vu' feeling – mass arrival and untargeted distribution of infant formula, milk powder, and commercial baby foods to mothers and children. Monitoring was almost non-existent. Coordination proved a big challenge despite the cluster mechanism being in place – infant and young child feeding falling between cluster 'camps' until finally being integrated into the Reproductive Health Cluster. We have described similar experiences many times in Field Exchange, including my own in FYR Macedonia in 1999. But this article goes further than any of the others we have featured. First, the team presents evidence that indiscriminate distribution of breastmilk substitutes (BMS) makes babies sick. Eighty per cent of under 2 year olds had received BMS in the previous 24 hours. Less than one-third of the infants (32%) under the age of 6 months old had ever consumed infant formula before the earthquake increasing to 43% during the emergency response. Pre-earthquake diarrhoea prevalence stood at 1% – 7%, increasing to 29%. Furthermore, diarrhoea prevalence in under 2 year olds was double amongst those who received donations of BMS (25.4%) as compared to those who did not (11.5%).

Faced with deteriorating feeding practices and increased morbidity in a population with typically poor feeding practices and now awash with milk powder, the team rose to the challenge. They responded through a combination of high level advocacy, of targeted media materials and developed an innovative system of skilled breastfeeding support to mothers, 'cascading' from trainer to peer-to-peer support. This had an immediate effect – amongst 54 post-earthquake newborns assessed, nearly all initiated breastfeeding within one hour of birth and over 63% were exclusively breastfeeding regardless of access to free BMS. Months later, reported exclusive breastfeeding rates in a surveyed group were still way above pre-emergency levels. The intervention had a knock on effect on national breastfeeding awareness and capacity, and strengthened ongoing national programming.

But why should staff have to intervene to prevent the damaging effect of aid? This type of experience was one of the driving forces behind a regional workshop on IFE held in Bali, Indonesia earlier this year and summarised in this issue. Funded by the UNICEF-led Nutrition Cluster and organised by the ENN/IFE Core Group in collaboration with UNICEF and the MOH Indonesia, the focus was on improving emergency preparedness and the early humanitarian response on IFE. Participants from 16 countries in the region attended. Almost all countries at the workshop had experienced receiving large, unsolicited donations of infant formula and other milk products during emergencies. The experiences of two countries, in particular, gave some valuable insight into the complexities behind handling this aid response, and have been written up as field articles in this issue.

Sawsan Rawas, a Nutrition Specialist with UNICEF DPRK, describes the extensive diplomatic efforts, at national, regional and international level, to avert donations of BMS coming in aid in response to severe flooding in August 2007. Significantly, even when pending donations were identified, there was great difficulty in preventing or diverting them. Staff spent considerable time on advocacy and 'containment'. The author concluded that advocacy and raising awareness were essential in preparedness for these challenges and the experiences from the

Philippines provided some inspiration for how to go about doing this.

The Philippines initiative to prevent donations of BMS, described by Ms Florinda Panlilio, of the Department of Health, Philippines, was prompted by the "fragmented, independent and donor-driven assistance" that arrived for the victims of Typhoon Reming in 2007. Early, widespread, and often unmonitored donations of infant formula and assorted powdered milk were made by non-governmental organisations (NGOs), government agencies, and schools to the disaster sites. One key action taken by the Philippine Disaster Management System to prevent this recurring has been the development of an administrative order on the acceptance of foreign and local donations during emergencies and disasters, prohibiting the acceptance of donated infant formula, breastmilk substitutes, feeding bottles, artificial nipples, and teats. This has been communicated to foreign embassies represented in the Philippines. Both the DPRK's and Philippines' experiences highlight the tensions that can exist between the politics of aid and best practice.

Alluded to earlier, the regional workshop on IFE in Bali was considered a success and an engagement at country level that really marked new territory. Outputs included country action plans, a model regional joint statement on IFE and a pledge for action by the individual participants. However, lack of donor involvement was frustrating - none of the invited regional or international representatives of bilateral donors attended, breaking their previous attendance record of one at an IFE strategy meeting in Oxford in 2006. Lack of donor commitment to addressing undernutrition is the subject of a summarised research paper in this issue of Field Exchange. Here, the authors describe how nutrition in the EC and DFID is everybody's concern but no one's responsibility. Sadly, the ENN only has to scan its participant lists from previous meetings, as well as its Field Exchange distribution list, to confirm these findings. With some notable exceptions, nutrition remains a low priority amongst many major donors.

Some sense of the evolution of collaborative efforts on IFE over the past 8 years or so, is reflected in the interview with IBFAN-GIFA on page 39, one of the founding members of the 'IFE Core Group' in 1998, and a stalwart member ever since. There is always the risk that those who are passionate about a subject are seen as extremist by another – indeed, the area of infant and young child feeding seems to be one particularly fraught with emotive 'baggage'. Critically, what the interview with Lida Lhotska and Rebecca Norton reflects is that breastfeeding protection and support, as one of the cornerstones of IFE, is less an idealogy and more a well-grounded and evidence based strategy in child survival. How to 'make it happen' in emergencies is fundamentally what drives this group.

'Making it happen' on the infant and young child feeding (IYCF) front is certainly picking up pace on the international agenda. As we go to press, a number of large initiatives/meetings to address child undernutrition in high burden areas are taking place, spearheaded by MSF's global malnutrition campaign "Starved for Attention: the neglected crisis of childhood malnutrition". This impetus offers a real opportunity to target attention, resources and innovation to maternal and reproductive health and feeding and care of children 0-2 years of age. However much of the attention currently centres on the scale up of Ready to Use Foods (RUFs) for treatment and prevention of moderate malnutrition, encouraged by the success of their use in community-based management of severe acute malnutrition. Certainly the development of the Ready to Use Therapeutic Foods (RUTF) formulation that allowed high specification take-home rations was a key element of its success, but community mobilisation and engagement is,

many would argue, just as important. Infant feeding may be the mothers' final responsibility, but is a family affair, and community-based approaches to managing malnutrition offer a great 'window of opportunity' to address IYCF early and at ground level.

There is a risk that in our drive to move forward on child undernutrition, we limit ourselves (perhaps unconsciously) to what we as individuals or as agencies consider is 'doable' or that conforms with the 'status quo'. Locating interventions to address child undernutrition in a comprehensive global framework on infant and young child feeding should help – both to establish an individual agency's own capacity and/or to create the right alliances to address infant and young child feeding in a sustainable and sensitive manner. We should take care that in our race to deal with malnutrition and all the talk of 'medicine foods', we do not medicalise infant and young child feeding any more than is necessary. We should not, as one seasoned humanitarian at a recent international meeting on child undernutrition cautioned, let self-interest and ideologies get in the way of making progress. And, perhaps most fundamental of all, we need to re-appreciate the "inherent human value" of food, eloquently described by Tom Marchione in his views piece (p25).

Although this issue has a special focus on IFE, there are many non-IFE related pieces to enjoy. An interesting 'take' on the global food crisis is explored in a field article that considers the role that financial speculation in food commodity markets has played in contributing to increases in food prices. The authors - Noemi Pace, Andrew Seal, and Anthony Costello at CIHD – feel there is "compelling evidence" that speculation in food derivatives has artificially increased demand and has had an adverse effect on global food prices. Predicting the effect of escalating global food prices on the cost of putting food on the table may be one application of a novel tool developed by Save the Children UK and described in an article by Vicky Sibson. The 'Cost of the Diet' software programme is used to determine the affordability of a nutritionally 'ideal' diet, using local foods. Case studies from Bangladesh and Tanzania, found that the cost exceeded the income of the poorest households, and were likely an underestimation. This tool may have valuable application in monitoring and predicting the impact of food price rises on the poorest households. Soaring global food prices has seen agencies rise to the challenge of optimising the use of food as aid and expand the use of cash based interventions. A field article by Hanna Mattinen and Loreto Palmaera of ACF describes a voucher milling scheme piloted amongst the displaced population in Dafur. As well as reducing the sale of the general food ration (to meet the costs of milling) and greater purchase of fresh foods, beneficiaries were able to invest in their children's education and the local economy was boosted through the support of the local millers.

Finally, I'd like to highlight some good news on a number of projects the ENN will be undertaking and on which we look forward to collaborating with you all on. Two research projects deal with emergency SFPs – the first to define and implement minimum reporting standards on SFP, and the second to increase understanding of the role of default and access in programme performance. We will also be piloting an online interactive forum (in essence 'NGOnut revisited') to establish timely technical assistance to field workers – watch our website for details and as ever, contact us with suggestions and feedback, as well as submissions for Field Exchange. Busy times!

Marie McGrath
Sub-editor

Any contributions, ideas or topics for future issues of Field Exchange? Contact the editorial team on email: marie@enonline.net

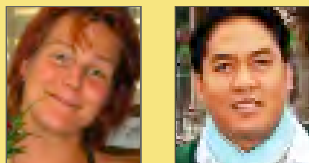


ACF, Darfur, 2008

Voucher distribution in South Darfur

Milling vouchers in Darfur to optimise food aid

By Hanna Mattinen and Loreto Palmaera



Hanna Mattinen has been Food Aid Advisor at the ACF headquarters since 2005, with a focus on food assistance and cash-based interventions. She previously spent several years working on food security programmes in Guinea, Liberia, Chechnya/Ingushetia, Nepal and Indonesia.

Loreto Palmaera is the out-going Food Security Coordinator of ACF in Darfur and incoming ACF Programme Coordinator in Soe, Indonesia. Previously, he worked as programme manager of Food Security in the Philippines, Indonesia and South Darfur, Sudan.

The authors would like to thank Emilie Crozet (ACF Food Security Expert in Darfur) who played a key role in the setting up of the project. Thanks go also to Pierre Mercier and Morris Kolubah (ACF Food Aid Officers in Darfur), Abeshaw Tadesse, Emilie Pasquet and Jean-Francois Berthier (ACF Food Security Officers in Darfur) and their teams, who have run the project and collected and analysed the data used in this article. Thanks also to Mary Traynor for proof reading.

Field Article

Global food aid deliveries reached a record low in 2007. They declined by 15% to 5.9 million tons, the lowest level since 1961¹. Current soaring food prices, competition with biofuels and depleted global cereal stocks have made food a scarce resource, leaving the humanitarian community faced with the challenge of optimising the use of food as aid.

The negative impacts of food aid, when used in an inappropriate manner, have already incited some stakeholders to find innovative and needs-based responses to situations where people face problems of accessing food. These so-called cash-based interventions, which include cash transfers, cash for work programmes and voucher schemes, have already been piloted in various contexts but are yet to be rolled out on a large scale.

This article focuses on a voucher programme implemented by Action Contre la Faim (ACF) in North and South Darfur. The programme provides vouchers to cover milling expenditures for households settled in internally displaced people (IDP) camps and benefiting from general food distributions. It was piloted in 2007, and at the moment, 105,000 people in four different camps and 103 millers are included in this programme.

Context and rationale of the programme

Darfur is a semi-arid region of Sudan, devastated by conflict since 2003. Widespread looting and destruction of assets, displacement and restricted movements have had a significant impact on people's lives and livelihoods (farming, livestock herding, trade and migration)². The region, which was formerly self-sufficient in food except in unusually bad drought years, has become a major recipient of food aid.

Sudan is now the world's third largest recipient of food aid, after the Democratic People's Republic of Korea and Ethiopia³. The World Food Programme (WFP), the largest food aid provider in the country, assists over 3 million people in Greater Darfur during the annual lean season⁴. The recently increased insecurity and the ongoing loss of assets leaves little hope for a decrease in the need in the near future and food aid remains the most appropriate response to cover the basic food needs of the vast majority of IDPs. Several assessments have, however, highlighted that part of the distributed ration is sold or bartered to get access to other basic items and services. An ACF study, for example, showed that on average, almost half of the camp populations use sales of food aid as one of their main sources of income to cover basic expenditures such as fresh food, firewood and milling^{5,6}.

Given the already stretched household budgets, ACF set out to find alternatives to reduce these fixed expenditures and started a pilot project distributing milling vouchers in late 2007⁷. This involved 21,757 households in the camps of Al Salam, Al Sereif and Otash (South Darfur) and in Shangil Tobay and Shadad (North Darfur). It was implemented in South Darfur from September 2007 to February 2008 (ECHO⁸ funded) and in North Darfur from October 2007 to May 2008 (DFID⁹ funded). The programme has currently been extended to January 2009 and October 2009, respectively. The objective of the programme is to support the registered general food distribution (GFD) beneficiaries to cover their milling needs, as

well as to enable IDPs to use their cash income for other purposes (such as fresh foods).

An additional concern inciting ACF to look for alternatives was cost-efficiency: was aid being used efficiently when food transported to Darfur from as far away as the United States¹⁰ was being sold in the markets for a similar price to cereal produced locally? Rough calculations show that the real average cost of a ton of food aid in Sudan is approximately 250 USD, while food aid sorghum is sold on the local markets for only 110 USD¹¹.



ACF, Darfur, 2008

A milling machine in Shadad camp, North Darfur

A baseline study, assessing the feasibility of the programme, found that the majority of households used milling machines. Only very few families resorted to time-consuming traditional milling means. Payment for milling was made mainly in cash, sometimes using short-term, no-interest loans. Bartering was used as a last resort as it is very expensive. The rates vary according to cereal supply and go as high as one unit paid for one unit milled. The baseline also concluded that while most of the population were not previously familiar with voucher schemes, it was easily understood as people conceptualised vouchers as 'money'. A detailed study was undertaken among the millers, to assess the existing milling infrastructure, its capacity to tackle a likely increase in demand and the willingness of the millers to participate in the voucher scheme. A key issue was to study the current milling price and the milling market dynamics, in order to minimise the potential impact of the programme on these.

Design of the programme

Milling vouchers are distributed monthly, in line with the general food distribution. Each

¹ WFP/Interfais (2008): Food Aid Flows. 2007.

² Buchanan-Smith M and Jaspars S (2007). Conflict, camps and coercion: the ongoing livelihoods crisis in Darfur. *Disasters*, 31 (s1):s57-76. Blackwell Publishers, London.

³ WFP/Interfais (2008). Food Aid Flows. 2007.

⁴ www.wfp.org

⁵ The ration is comprised of oil, cereal, leguminous, CSB and sugar. The cereal is in grain form and hence needs to be cleaned and milled prior to consumption.

⁶ Baseline study conducted in the camps of Al Salam (South Darfur) and Shangil Tobay and Shadad (North Darfur) in September and October 2007. Action contre la Faim (2008): Vouchers for milling programme - Impact Analysis. North and South Darfur.

⁷ ACF also runs a programme of fuel efficient stoves to address the issue of firewood expenditure and is considering piloting fresh food vouchers.

⁸ European Commission's Humanitarian Office

⁹ Department for International Development

¹⁰ 63% of all food aid distributed in Sudan comes as an in-kind donation from the United States, which is the largest single food aid donor for Sudan, followed by the EC which provides funding for 17% of the food aid. WFP/Interfais (2008): Food Aid Flows. 2007.

¹¹ The calculation for food aid includes only the price of food, and excludes costing of transport, storage and handling (LTSH) which can go up to 480 USD/Mt in Sudan for overseas consignments (source: WFP report on EMOP 2007, http://www.wfp.org/operations/current_operations/project_docs/105570.pdf). The market price is sourced from ACF market survey in Nyala and El Fasher in September 2007.



voucher is valid for a month after its distribution and has a face value of milling 2 rubbo (local weight measurement in North Darfur) or 4 malwa (local weight measurement in South Darfur). Both represent 13.5 kg of sorghum, equalling the theoretical monthly cereal ration per person, which can be milled at any participating milling shop. The quantity of commodity covered by the voucher is defined instead of the cost-value of the milling service, in order to be more flexible in case the price needs to be adjusted. The cost-value of the milling service is 2 SDG¹², which equals approximately 1 USD. Large-scale sensitisation and awareness-raising campaigns were organised with the help of traditional leaders and ACF food security community technicians prior to the launch of the project.

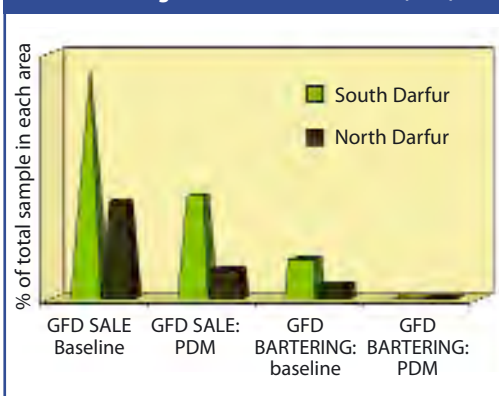
Millers are currently paid in ACF offices in Nyala and in Shangil Tobay 2-3 times per week, due to security risks involved in bringing cash to the IDP camps. This *modus operandi* also ensures open and continuous communication between ACF and the millers. However, with the volatile security situation in Shangil Tobay, the payment period has been erratic. ACF is currently exploring the possibility of paying the millers through the existing banking systems. This option was discarded in the beginning due to weak services and the security risk perceived by the millers in moving between the town and the camp with large amounts of money.

Impact

The programme has shown positive results and been very popular among the beneficiaries and the millers¹³. Overall, 96% of the vouchers were used for their intended purpose (milling and cleaning of cereal), while only 2% was sold or exchanged¹⁴. In the vast majority of cases, vouchers were sold for their real value i.e. 2 SDG.

The first post distribution monitoring (PDM), conducted in November 2007, showed that after two months of operations, the percentage of households selling the GFD cereal decreased significantly with a 55% decrease in South Darfur and a 70% decrease in North Darfur (see Figure 1). The share of households bartering the GFD cereals also plummeted to almost 0% (96% decrease in South Darfur and 89% decrease in North Darfur). The use of cash for milling purposes also dropped (74% decrease in South Darfur and 78% decrease in North Darfur)¹⁵. In terms of economic impact, the vouchers covered approximately 20% of household expenditures. With an average expenditure of 60 SDG per household and per month¹⁶, the vouchers, with a cost-value of 2 SDG per voucher, contributed 12 SDG per month for a family of six members.

Figure 1: Share of households selling or bartering their general food distribution (GFD)



PDM: Post distribution monitoring

The PDM conducted in February 2008 confirmed the significant decrease in the proportion of GFD rations sold or bartered to cover milling costs, although the reduction in overall sales was less drastic than in the first PDM. In February 2007, 9% of the GFD ration was sold and/or bartered to cover the milling cost in South Darfur. One year later, it had dropped to 1%.

On the other hand, about 20% of the cereal ration continues to be sold in both North and South Darfur. It is interesting to note, however, that the use of the income derived from the sales is now used increasingly for the purchase of fresh foods and firewood as well as to cover for health and education related expenses, and that the overall quantities sold by the households have decreased¹⁷.

The monitoring findings were confirmed during an external evaluation in February 2008. The beneficiaries said that they now consume more of their food ration than they did before the voucher programme. Some said that they have increased their number of daily meals from two to three. All said that they still sell some of their food rations but that the amount sold is less than before and the income has been spent on other basic needs rather than milling¹⁸. The evaluation concluded that the voucher programme is relevant and appropriate as it provides a clear response to the economic needs of the displaced people.

The programme has also boosted the local economy by giving local millers more income generation opportunities, and as a consequence the number of millers has increased. The scheme used existing miller networks in order to respect the existing commercial organisation and set the price with them without impacting the going market price.

Constraints

One of the constraints ACF has faced during the implementation of the programme is the unpredictability in the price of fuel. Fuel prices in Darfur increased just before the start of the programme in 2007, leading to a 40-60% increase in milling costs. This was supposed to be temporary (fuel tanker movements were stopped on the road from Khartoum to South Darfur due to insecurity), but how temporary was difficult to evaluate. Eventually, after a month, the price of fuel went back to normal. In June 2008, the same situation was experienced when insecurity escalated, leading to a re-adjustment in the price of the vouchers. ACF paid higher prices to millers, while the beneficiaries' entitlement remained unchanged. As the price of the fuel decreased, the cost-value of the voucher also went back to normal.

Food pipeline problems were experienced at the same time as fuel prices increased, and the GFD cereal ration was halved. ACF could therefore increase the amount paid to millers without decreasing the proportional coverage of the monthly cereal ration and without changing the overall budget of the project - as the cereal ration was halved, it could be completely covered by the milling vouchers even if the price of the milling service had increased. Project budget flexibility, however, remains an issue for vouchers for services or commodities whose prices may fluctuate during the project period.

Another key issue, although not exclusive to vouchers, concerned targeting. Given that the project was set up on a pilot basis, ACF was reluctant to implement a large-scale operation and opted for targeting in some camps, despite the seemingly homogenous socio-economic situation¹⁹. The criteria, which were defined through wealth-ranking with the population, largely resembled social criteria used in other projects around the world and showed no Darfur specificities. During subsequent monitoring, beneficiaries often complained about inaccuracy and lack of logic in the targeting. The external evaluation of the project indicated complex webs of social interaction between people, within which people help each other out when they are in need. It suggested further that it was unlikely that any meaningful and measurable vulnerability indicators, essential for targeting, could be developed for this type of population. ACF stopped targeting and is now covering all GFD beneficiaries in the selected camps. The GFD lists, however, are not always accurate and for example, the PDM from North Darfur indicates that on average, only 70% of the actual household members are covered by the distributions. Relevant actors are currently working on improving the quality of the GFD lists.



Millers review their memorandum of understanding

The verification of the authenticity of the vouchers before the actual payment to the millers has been, as expected, very time consuming, especially when several millers expect their payment at the same time. This control mechanism, however, has been valuable in identifying fake vouchers. In June 2008, fake vouchers were mixed with the authentic vouchers but they were recognised due to the unique design and the security features, including serial number, of the real vouchers.

Other constraints relate to the use of the vouchers by households, but have not overall

¹² Sudanese pound.

¹³ See Action contre la Faim (2008): Post Distribution Monitoring. North and South Darfur. and ACF external evaluation 02/2008.

¹⁴ For more detail, see under 'Constraints'.

¹⁵ Action contre la Faim (2008): Vouchers for milling programme - Impact Analysis. North and South Darfur. Note that because the PDM was implemented at the very beginning of the voucher scheme, households may have exaggerated the positive impact of the vouchers.

¹⁶ This equals approximately 30 USD. Source: ACF Food Security Surveillance Report, South Darfur, Jan 2008.

¹⁷ Action contre la Faim (2008): Post Distribution Monitoring. North and South Darfur. Note that the GFD food ration has not changed between the PDM rounds.

¹⁸ ACF External Evaluation, February 2008

¹⁹ Due to the homogenous situation of the displaced population in the camps, the traditional or pre-displacement wealth ranking indicators have been greatly questioned and each person feels that they are entitled to support. This has been aggravated by political issues involving local leaders who demanded to be included in the process of beneficiary selection and cross-checking, creating potential tensions and/or insecurity.

represented substantial problems. Some beneficiaries found the face value of the voucher (13.5 kg / voucher) too high. They directly negotiated with millers the possibility to mill smaller quantities at one time, leaving a 'credit' with the millers for up-coming visits. Millers did not claim any extra fee for this service. A small minority of the beneficiaries also used the vouchers to buy other items, such as fresh foods. In some cases, local fresh food traders accepted the vouchers as a form of payment and then sought the help of millers to cash the vouchers from ACF. At the moment, only a few isolated cases have occurred, but the situation requires thorough monitoring and follow up.

Conclusion and outstanding questions

This Darfur milling voucher scheme shows an easily duplicable and practical way of coupling traditional food aid with an innovative approach to promote effective use of aid and beneficiary satisfaction. It also demonstrates a successful example of scaling up cash-based interventions. Overall, the vouchers-for-milling programme has given IDPs short-term benefits from the saved income through improved diet (consumption of the GFD ration and purchase of fresh foods) as well as an opportunity to invest in activities that bring long-term benefits, such as education of children. In addition, it has boosted the local economy by giving local millers more income generation opportunities²⁰.

While the vouchers were extremely valuable and useful in addressing the needs of IDPs for milling, it should be noted that IDPs continue to sell a significant, albeit smaller, part of their food ration to cover other essential expenditures. Expanding the scope of the voucher scheme to cover other items, such as fresh foods, could be explored but would require in-depth market analysis. This is of particular importance in areas such as Darfur where years of conflict have severely disrupted traditional market networks. The impact of the current programme on the market has been limited apart from the increased number of millers. As the face-value of the voucher is essentially a service (milling) that requires relatively low skills and initial capital, the service providers could get organised among themselves to ensure adequate supply. In addition, as the milling was linked to monthly food distributions, demand was predictable. Cash transfers could also be considered but may be risky in the current context and would require comprehensive security analysis.

For more information, contact Hanna Mattinen, email: hmattinen@actioncontrelafaim.org and Loreto Palmaera, email: lorspalm@yahoo.com

²⁰ Of note is that the voucher scheme, as the vast majority of humanitarian interventions, is not highly sustainable and it is dependent on external inputs (funding, food aid). Arguably, though, its positive impacts may be longer lived given the implication for the local markets.



A voucher sensitisation meeting in Shangil Tobay camp, North Darfur

5



Women collect bags between air drops near the town of Habilla, West Darfur

WFP/Peter Smerdon, Sudan 2004

Community participation in targeting in South Sudan

Summary of research¹

A recent study, carried out by the Feinstein International Centre and commissioned by the World Food Programme (WFP), set out to investigate the participation of recipient community in the targeting and management of humanitarian food assistance in complex emergencies. The study involved a substantial desk review of existing documentation and three weeks of field work in February and March 2008 in southern Sudan. The purpose of the study was to understand the ways in which participatory or community-based approaches to targeting have been attempted. The study examined community participation through the food aid programme cycle both retrospectively (during the war) and currently.

Targeting has been subject to constraints in Southern Sudan by diversion or taxation of food, limited information systems or analytical capacity, logistics and the speed of donor responses to requests. The impact of targeting is strongly affected by the practice of sharing food aid by recipient communities. Nevertheless, a fair amount of community-based targeting took place during the war through the Chieftaincy system, which proved sufficiently accountable for the most part to ensure that assistance got to the vulnerable people. The main exception to this observation in some cases was internally displaced people, particularly those displaced away from their own traditional leadership. Other mechanisms – relief committees and local administration – did not promote participation so well.

In the post-war era, targeting has become more administrative in nature. However, there is little evidence to show that a more administrative approach has been successful in reducing targeting inclusion or exclusion error. Several examples provide ample evidence to suggest that participatory methods could improve targeting and reduce errors – as well as address some salient protection concerns – where authorities and Chiefs are willing to promote this approach. But for the most part, the actual recipients have little say over targeting criteria, recipient selection, distribution or the monitoring of food assistance.

Much of the process remains opaque to recipients, who are not aware of their entitlements or the process of determining who is entitled. Even where people are aware of entitlements, there is also little post-distribution monitoring, so it is difficult to assess targeting error. The qualitative evidence gathered from an admittedly small sample in this study suggest that targeting error (both inclusion and exclusion) is significant, while there is little agreement over the criteria for targeting some groups and excluding others. With the exception of displacement, there is little understanding on the part of recipient communities of the rationale for these criteria.

Examples were found, however, where greater involvement of the recipients themselves in the targeting of food assistance helped to address all these problems. These examples include both natural disasters (flooding) and conflict (displacement by LRA attacks). Some of them involve traditional leadership, while others are based on the emergence of other leaders from among the ranks of trusted community elders or religious leaders. Virtually all of these examples take into consideration the fact that regardless of the mode of targeting, individuals are going to share food assistance in ways that external agencies do not take into account.

The authors of the study conclude that improved targeting would be promoted by better understanding of culture and context, continuously striving to involve all stakeholders and to improve transparency of procedures. Examples include awareness of various food aid modalities, registration and verification procedures, and exact beneficiary entitlement. Taking an integrated view of targeting that includes consideration of geography and timing and a willingness to promote the participation of recipient community groups is seen as critical to successful targeting.

¹ D. Maxwell and J. Burns (2008). Targeting in Complex Emergencies - Southern Sudan Case Study. Feinstein International Centre, May 2008

Managing severe acute malnutrition in high HIV prevalence areas

Summary of research¹

The challenges of managing severely malnourished HIV-infected children in areas of high HIV prevalence are examined in a recent article in the *Lancet*. The article starts with the premise that in sub-Saharan Africa, mortality is three times higher in HIV-infected children with severe malnutrition than in non-infected children. The HIV pandemic in sub-Saharan Africa has substantially altered the epidemiology, clinical presentation, pathophysiology, case management and survival of severely malnourished children. Case-fatality rates range from 20-50%, despite the use of WHO guidelines. Furthermore, HIV affects a wide range of children, many of whom are admitted to nutrition rehabilitation units and the metabolic responses in HIV-infected malnourished children are largely unknown.

In sub-Saharan Africa, young HIV-infected severely malnourished infants present with multiple pathology and many have persistent diarrhoea, pneumonia, extensive skin infection and oral thrush. Young children aged 3-6 years are often admitted with persistent diarrhoea and have high case fatality with poor response to treatment. In addition, extremely wasted and stunted young adolescents, previously rarely admitted outside the setting of famine, are now admitted for nutritional recovery and present with chronic HIV-related multi-system disease. In Zambia and Malawi, more than half of patients admitted to many nutrition rehabilitation units are HIV positive, with case-fatality rates of 40% or higher. The percentages of readmissions are also increasing.

Improvements in treatment will depend on improved knowledge of the cause of infection and antimicrobial susceptibilities, pharmacokinetics in malnourished children and complex drug interactions and toxicities (e.g. antiretroviral therapies (ART) and therapies for tuberculosis). There are also currently inadequate data on the optimum regimen for supportive care in the malnourished

child who has adapted to a reduced body mass and organ and system function. (e.g. management of shock). The effects of wide use of co-trimoxazole in HIV-infected populations are not yet certain.

The metabolic and nutrient needs of HIV-infected children need clarification. Appetite is not a useful tool to assess recovery for such cases as persistent anorexia is common. Appropriate diets are also needed for the increasing number of severely malnourished infants under age of 6 months, as unmodified F75 and F100 are unsuitable for them.

The use of F100 or Ready to Use Therapeutic Food (RUTF) is part of standard care for HIV-infected severely malnourished children, but mortality within 4-6 weeks remains high at 38%. Whether it is better to start ART before or after nutritional rehabilitation is unclear. Many children will gain weight with nutrition support alone. When available, CD4-cell count would help to identify those requiring treatment, since up to a quarter of severely malnourished children in food insecure settings will be above the threshold for initiation of ART. Those without WHO stage 3 or 4 HIV disease should be started on co-trimoxazole, but CD4-cell counts do not seem to rise after nutritional rehabilitation and will continue to fall with disease progression. Hence, the need for pharmacokinetic studies during recovery from malnutrition to confirm or establish the correct ART dosing and timing.

The authors of the paper (Blantyre Working Group) recommend that studies be done on the optimum timing and dosing of ART, on the definition of the best therapeutic feeding regimens, and on the better understanding of the basis for treatment of acute and chronic infection and metabolic changes in HIV-infected severely malnourished children.

¹ Heikens G et al (2008). Case management of HIV-infected severely malnourished children: challenges in the area of highest prevalence. Vol 371, April 12, 2008. Available at www.thelancet.com



Severely malnourished children managed in the MSF-run Centre de Récupération Nutritionnelle Intensive (CRENI) in Maradi, Niger

Rebecca Grails, Epicentre/MSF, Niger

Impact of WHO Growth Standards on programme admissions in Niger

Summary of research¹

A recent study by Epicentre and Médecins Sans Frontières (MSF) set out to assess the implications of using the new WHO Child Growth Standards in a nutritional programme in Maradi, Niger. The study aimed to compare the WHO standards with the NCHS reference in terms of response to treatment, and also to assess their respective accuracies at admission (as well as that of Mid Upper Arm Circumference (MUAC)) in predicting risk of death.

Epicentre analysed data from children aged 6-59 months admitted to the MSF programme in Maradi, Niger in 2006. Outcome measures included weight gain, treatment duration, recovery, death, defaulting and need for inpatient care. Both weight-for-height in Z-score (WHZ) and as percentage of the median (WH%) were examined. The receiver operating characteristic (ROC) and area under curve (AUC) were estimated for WHZ, WH% and MUAC to predict the risk of death.

Results

In this particular programme, eight times more children would be classified as severely malnourished according to the criterion of WHZ < -3 from the WHO standard, compared with the criterion of WH% < 70% of the median from the NCHS reference. No child included on the basis of the NCHS reference was excluded when using the new WHO standards. Children admitted on the basis of the new WHO standards (WHZ) had shorter treatment durations, greater recovery and less death, less defaulting and less need for inpatient care than those admitted on the basis of the NCHS reference (WH%). Children admitted on the basis of the WHO standards were younger and admitted on higher WHZ scores. However these patterns still prevailed after adjustment for differences in age and sex. AUC values for the WHO standard provided higher accuracy with respect to predicting mortality (WHZ: 0.76 (95% CI, 0.75-0.80) and WH%: 0.77 [0.75-0.80]) than the NCHS references (WHZ: 0.63 (0.60-0.66) and WH%: 0.71 (0.68-0.74)). The relationship between MUAC and mortality risk appeared weaker, with the AUC: 0.63 (0.60-0.67). Analysis stratified by sex and age yielded similar results.

Conclusions

The WHO standards and the Z-score criterion expand programmes to include children who are younger but less severely wasted. Identified at earlier stages, these children had fewer medical complications requiring inpatient care and were more likely to experience favourable discharge outcomes. However, use of the WHO standards results in a considerable increase in the number of children identified as severely malnourished when compared to the NCHS reference, with significant implications for the size of treatment programmes and resources needed. Although increased resources may be needed, they may likely be balanced by the lower duration of stay and needs for inpatient care.

¹ Lapidus. N et al (2008). Introduction of the WHO growth standards: impact on a nutritional programme in Maradi, Niger. MSF Scientific Day Report. 'Research shaping the way we work'. 5th June 2008. <http://www.msf.org.uk/scientificday.event>



An inpatient facility in Malawi

M Kerac, Malawi, 2007

A child tries out some RUTF in a programme in Ethiopia

Effectiveness of Integrated Outpatient Care of Severe Acute Malnutrition in Ethiopia

By Martin Eklund and Tsinuel Girma



fed/babe Diglate/JSC US, Ethiopia

classified as severely malnourished at a younger age. Thus, nearly three times more children aged 6-11 months had a WHZ < -3 when using the WHO standard instead of the NCHS reference.

Discussion

The proportion of children who recovered was well below results obtained in large CMAM programmes (~60-95%) and below SPHERE standards (> 75%). The proportion of defaulters was greater than usually observed in CMAM (~4-37%) and outside of SPHERE standards (< 15%). The fact that only a few children died could reflect low treatment failure. Indeed, the low case-fatality rate compares with the lowest rates observed in CMAM programmes and in studies of the use of Ready to Use Therapeutic Foods (RUTF) and is well below the criteria of success according to SPHERE standards (< 10%). However, many untraced defaulters may have died at home without being registered.

The results for rate of weight gain and length of stay both fulfilled criteria of successful rehabilitation. However, under ideal circumstances, a much greater rate of weight gain could be expected from administering RUTF (15-20 g/kg/d). Sharing of RUTF at home seemed to be a likely cause of diminished rate of weight gain.

From this study, several important issues for successful integration of CMAM were identified. These are related to the five recently identified domains in the CMAM integration framework³:

1. An enabling environment for CMAM

In Jimma, the aim was to build community capacity to implement CMAM with the MoH taking the primary responsibility. Jimma University took the lead in introducing the concept of CMAM to community health managers including heads of health centres. National CMAM guidelines have since been developed. A problem, though, is that CMAM is not included in job descriptions of health professionals. This might affect how CMAM is prioritized at health centre level.

2. Access to CMAM services

Active case-finding did not take place in Jimma as planned, which is why only a few children were referred by community volunteers. Community mobilisation clearly has to be strengthened in order to increase awareness of CMAM services and to provide treatment for more children in need. The health extension programme is a relatively new primary health care concept and is being implemented on a large scale in Ethiopia. Linking this programme with the volunteer service and including screening and referral of severely malnourished children in their job description is crucial.

Ideally, community follow-up of children absent from OTP should take place. This component was not implemented in Jimma. Thus, the defaulter rate was high and it is not clear what happened to these children⁴.

Some of the health centres experienced high staff turnover. When nurses who had been trained in CMAM left, other untrained health professionals had to take over the management of OTP. This affected the quality of care.

3. Access to CMAM supplies

UNICEF provided CMAM supplies, i.e. F75,



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The authors would like to acknowledge the contributions of the health workers at the OTP sites, Jimma Zone health managers, Concern Ethiopia and UNICEF-Ethiopia to the work reflected in this article.

Community-based management of acute malnutrition (CMAM) has been implemented in Ethiopia by various non-governmental organisations (NGOs) in response to emergencies. Programmes have relied on external resources, both human and financial. However, it is recommended that CMAM is integrated into existing health structures in order to assure national ownership and promote sustainability.

In 2004, Jimma University in Ethiopia began the process of piloting a decentralised outpatient treatment programme (OTP) via existing health structures, supported by the Ministry of Health (MoH). The first step to implementation was taken in December 2005. Five health centres within a radius of 50 km from Jimma functioned as OTP sites, with inpatient treatment taking place at Jimma Hospital. The main principle was local capacity building and minimal involvement of external partners.

Despite already proven effectiveness of community based therapeutic care (CTC) in Ethiopia during emergencies, it had not been made clear whether CMAM initiated and run by the MoH was successful in a non-emergency context. Thus, the purpose of this study was to evaluate the effectiveness of CMAM with the main focus placed on outcomes from the OTP. Key variables in the analysis were final treatment outcome, rate of weight gain and length of stay in the OTP. The study also assessed the implications of applying the new growth standard released by the World Health Organisation (WHO) as opposed to the National Centre of Health Statistics (NCHS) growth reference. Finally, the implications of using either Z-scores or percent of the median for CMAM admission were considered.

The study was a prospective cohort study of 324 children aged 6-59 months having received treatment in OTP in one of four¹ health centres in Jimma. Data were recorded on individual OTP cards upon admission and follow-up in OTP from December 2005 to April 2007.

Results

Treatment outcome

The main finding in this study was that more children defaulted (47%) than recovered (45%). Seven per cent of admissions were referred to hospital and the case fatality was only 1%. For recovered children, the median rate of weight gain was ~5-6 g/kg/d and the median length of stay was ~30-45 days.

Growth reference data and expression of nutritional status

The NCHS reference is used throughout Ethiopia along with weight for height percent of the median (WHM) as an admission criterion. If a shift to the WHO standards is accompanied by use of weight for height z score (WHZ) < -3 to admit children to OTP instead of WHM < 70%, a potentially greater proportion of children will be classified with severe acute malnutrition (SAM). On the other hand, fewer children are expected to be admitted to OTP if the current use of WHM < 70% is retained, while the WHO standard is introduced in place of the NCHS reference². This, however, depends on the children's stature. Arguably, the use of Mid Upper Arm Circumference (MUAC) would make the admission procedure much easier. When both WHZ admission criteria and the WHO standards were applied to the study group, as suspected, these phenomena were most extreme, and a 31% increase in children being classified with SAM was observed. It was also clear that more children tended to get

F100, RUTF (Plumpy'nut) and anthropometric equipment, etc. Delivery to health centres was via existing MoH distribution systems. Supply breaks were a problem in some cases.

For sustainability purposes, RUTF needs to be produced locally. Future development of alternative RUTF formulations should ensure that effectiveness is not compromised in order to reduce cost.

4. Quality of CMAM services

Misclassification of nutritional status did occur despite national guidelines and previous training. Nine percent of the children were admitted to OTP without fulfilling any admission criteria. Some children should initially have been admitted to inpatient treatment. These were children with marasmic-kwashiorkor or severe oedema and children with no appetite or who failed the RUTF appetite test.

Upon data collection it became clear that both data quality and quantity from OTP cards was insufficient to run analyses on all variables. Low priority given to data collection and lack of time to carry out CMAM could explain why a lot of data were missing.

5. Competencies for CMAM

A two-day pre-service training course was provided to health workers, nurses and health officers, selected from five health centres. Heads of maternal and child health units were also trained with emphasis on monitoring and evaluation. Concern Ethiopia provided instructors and financed the training, including refresher training, while Jimma University provided technical assistance. Subsequent on-site training was also conducted in which health professionals were observed while they treated children. The on-site training was a good opportunity to correct errors and clarify doubts. Enthusiasm and confidence was witnessed among health professionals during trainings. However, a small post-training assessment of skills and knowledge among health professionals identified major problems in clinical assessment and recording on OTP cards.

Conclusions

The results of this study show an overall successful integration of CMAM into existing health structures. The CMAM model, though, is not yet fully evolved in Jimma and community outreach activities and follow-up of defaulters need to be urgently implemented. Furthermore, there is a need for ongoing support and supervision of health professionals as well as monitoring and evaluation of OTP activities.

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¹ Very few children were admitted in the fifth health centre so admissions from this health centre were not included.

² Seal, A and Kerac, M. Operational implications of using 2006 World Health Organization growth standards in nutrition programmes: secondary data analysis. *BMJ*, doi:10.1136/bmj.39101.664109.AE (published 23 February 2007)

³ Deconinck, Hedwig, Anne Swindale, Frederick Grant and Carlos Navarro-Colorado. Review of Community-based Management of Acute Malnutrition (CMAM) in the Post-emergency Context: Synthesis of Lessons on Integration of CMAM into National Health Systems. Washington, DC: FANTA Project, Academy for Educational Development, 2008.

⁴ Since then, a defaulter traces study has been completed and results are under analysis.

Factors associated with defaulting in MSF ambulatory programme

Summary of meeting abstract¹

Since Médecins Sans Frontières (MSF) changed its treatment approach from centre-based to 'ambulatory' therapeutic feeding programmes (ATFP), a considerable number of programmes have experienced high defaulter rates. In 2006, 15 (68%) of the 22 MSF Holland ambulatory programmes had a defaulter rate of > 15%, three ATFPs (14%) had a defaulter rate of 10-15%, and only four (18%) had a defaulter rate of < 10%. As a result, MSF conducted a study to identify key factors underlying defaulting.

Quantitative and qualitative data on defaulting was collected in programmes in south Sudan, Darfur, Myanmar, Ivory Coast and Ethiopia. Defaulting children were defined as missing a follow-up appointment more than twice. Semi-structured and in-depth interviews were conducted with caretakers of enrolled children in south Sudan and Darfur about personal or community attitudes to ambulatory therapeutic care programmes and barriers to participation. Defaulters were not interviewed due to time, transport and security constraints. Further information was gathered through observations of programmes and from programme reports. Statistical analysis was performed on data from registration books and patient files to examine characteristics of defaulters. This involved analysis of timing of defaulting, gender and distance to programme.

The results demonstrated no significant difference in age, gender or weight for height on admission between cured children and defaulting children. In south Sudan, Darfur and Myanmar, 55%, 44% and 62% of patients defaulted immediately after admission or the first follow-up visit.

Comparison between programmes in South Sudan showed that average length of stay before defaulting was related to the type of care the child received. In-patients averaged 48 days before defaulting, children

who spent the first week in day-care averaged 12 days, and out-patients averaged 6 days. Programme default rates were related to intensity of outreach work; programmes with well-established outreach (Ivory Coast, Darfur and Myanmar) had default rates of <10% while those without outreach (south Sudan and Ethiopia) had default rates >30%.

Distance to ambulatory therapeutic care programmes was not related to defaulting, except for people living very far away (e.g. two days walk away). In Darfur, patients who travelled 8 hours by donkey were twice as likely to default compared to people living relatively nearby ($p=0.001$). Caretakers' appreciation of the programme was high but their understanding of malnutrition, target weight and treatment duration was poor. Community attitudes to ATFP were not a barrier to participation.

Conclusions

Around half the defaulters left the programme soon after joining. This appears to be associated with poor communication with caretakers, unreliability of centre opening hours and food availability. There is a need for a more patient-centred approach to ensure caretakers are informed of the aim of the treatment, exit criteria, expected duration and number of visits, and are motivated to continue follow-up visits. Outreach workers have a vital role to play in this. Programme planners should ensure reliability of programme services, such as standard opening hours, continuous availability of food and the use of standard ATFP patient files to reduce defaulting.

¹ Van der Velden, E and van der Kam, S (2008). Key factors underlying defaulting in MSF ambulatory therapeutic feeding programmes. MSF Scientific Day Report. 'Research shaping the way we work'. 5th June 2008. <http://www.msf.org.uk/scientificday.event>



Children participate in the obligatory 'appetite' taste for RUTF

Why is undernutrition not a higher priority for donors?

Summary of research¹

Recent research by the Institute of Development Studies looks at how two donors prioritise undernutrition – The UK's Department for International Development (DFID) and the European Commission (EC). The study was based upon:

- Public commitments made in speeches and press releases
- Expenditures, based on data from the Development Assistance Committee (DAC)
- Opinions, assessed through interviews with key informants.

The research suggests that while DFID and the EC recognise the importance of undernutrition, they do not see investments in reducing it as fundamental to development.

However, the EC and DFID do spend relatively large amounts on healthcare, water supply and sanitation, social protection and food security. While these interventions can indirectly impact nutritional status, the absence of a nutrition strategy to guide them does not generate confidence.

The authors of the study suggest a number of reasons why commitment by DFID and EU are so lukewarm. These include the fact that as chronic undernutrition is affected by many different sectors, it is no-one's responsibility – a classic failure of collective action. As a result, there are few champions promoting nutrition within the EC or DFID. Another reason given is that the current focus on achieving good governance does not easily support the allocation of resources to nutrition. A third posited reason is that the way in which DFID and EC report on their progress means there are few incentives to prioritise nutrition. For example, DFID measures poverty using statistics about the number of people living on less than one dollar a day. Finally, DFID and the EC are not engaging with the international agencies responsible for nutrition while these agencies are too dependent on the donors to sufficiently challenge them, and so rely on the donors to proactively engage.

The authors suggest a number of ways in which DFID and the EC could do more on nutrition. These include:

- Highlighting the importance of nutrition for achieving the Millennium Development Goals, not only those on poverty and child mortality, but also on education, gender equality, maternal health and communicable diseases.
- Appointing a champion to promote nutrition in all departments and build stronger links with and support for other agencies, particularly the Standing Committee on Nutrition (SCN) – the only UN agency devoted to combating undernutrition.
- Using nutrition indicators to report on progress towards reducing poverty.
- Conducting a nutrition audit of their spending in areas which have a potential nutrition impact – for example, investigating whether investments in social protection, agriculture and water are as 'nutrition friendly' as they could be.

Finally, the nutrition community needs stronger leadership to challenge DFID and the EC more effectively. They need resources to conduct independent nutrition audits, and to find better ways to link nutrition to existing donor priorities.

¹ Sumner, A, Lindstrom, J and Haddad, L (2008). Why is undernutrition not a higher priority for donors? Id21, issue 3, produced by Institute of Development Studies.

RUTF use in adults in Kenya

Summary of meeting abstract¹

In 2007 in Nyanza Province in Kenya, Médecins Sans Frontières (MSF) enrolled HIV positive adults from a large Ministry of Health (MOH) /MSF HIV programme into a nutritional programme. The purpose of this was to study the acceptability of peanut-based Ready to Use Therapeutic Food (RUTF) to HIV+ adults and any issues that arise from its distribution and consumption.

A total of 56 patients and eight MoH/MSF staff were involved in the study. The patients were all taking anti-retroviral therapy (ART), had a Body Mass Index (BMI) < 17 and/or Mid Upper Arm Circumference (MUAC) <185 and/ or oedema. They received four sachets of a peanut-based RUTF² daily (energy equivalent 2,000 kcals/day). The research team used qualitative methods such as key informant interviews, focus groups and direct unobtrusive observations.

Results

The patients comprised 60% females, 85% were over 30 years of age and 32% were widowed. At the time of the study, 72% were receiving RUTF. Of these patients, 45% came to the clinic with a carer and 83% came on public transport (average journey time was two hours). The main physical barrier for adherence was distance to the HIV clinic. Due to the weight of the product and patient frailty, those without a carer could only take a two-week supply. Most of the patients only came back after a month (to coincide with their next appointment to collect the antiretroviral drugs) and so reduced the prescribed intake per day to make the available amount last. The patients were enthusiastic about their weight gain and the possibility of returning to daily activities. They reported, however, that they felt stigmatised for consuming RUTF, more so than for HIV drugs.

Half of the patients said they could not comply with the full prescription due to the taste of the product, dietary boredom and clinical conditions associated with HIV (oesophageal thrush, lack of appetite, nausea and vomiting). Sharing the RUTF ration with other household members was common, mainly due to poverty and household food insecurity. Patients were observed mixing RUTF with other foods, both to facilitate its consumption (in the case of thrush) and to break dietary boredom. This included mixing the RUTF with highly micronutrient-fortified porridges provided after discharge. Also, multi-micronutrients tablets were commonly provided without advice on the correct amount and duration (contra-indicated in the MSF nutrition protocol). In those patients who did comply with the full prescription of RUTF, these practices posed a risk of exceeding the safe upper

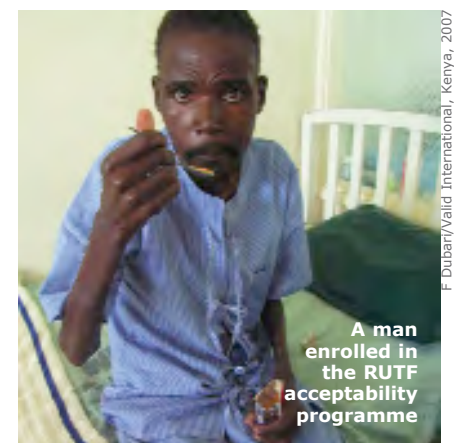
limits of micronutrient consumption. The medical staff did not receive training on the nutrition therapy and expressed a lack of understanding about the effectiveness of the treatment. They did not counsel the patients on why, when or how to take the RUTF. Staff also had difficulties in estimating height in the patients observed in this study, due to symptoms associated with severe malnutrition such as flexor contractions and scoliosis, which led to inaccuracies in BMI and RUTF doses.

Conclusions

This study suggests that an improved approach to treating malnourished HIV+ adults living in resource-poor settings is needed. This approach must take into consideration the differences that exist between the traditional outpatient programme designed for children and the challenging reality of malnourished adults, including the need for a novel RUTF specifically designed for malnourished adults with HIV.

¹ Dibari F, Le Galle, I Ouattara A, Bahwere P, Seal A (2008). A qualitative investigation of Plumpy'nut consumption in adults enrolled in an MoH/MSF programme in Kenya. Report on MSF Scientific Day. 'Research shaping the way we work'. 5th June 2008. <http://www.msf.org.uk/scientificday.event>

² Plumpy'nut, Nutriset, France.



F. Dibari/MSF International, Kenya, 2007

Algorithms for converting NCHS references

Summary of published research¹

One of the challenges thrown up by the development and introduction of the new WHO growth standards is that surveys using the new growth references cannot be compared with earlier surveys using the NCHS derived references. In order to obtain comparable data over time, earlier surveys would need to be reanalysed using the new WHO standards, however, reanalysis is impossible for older surveys since the raw data are not available. A recently published paper provides algorithms for converting estimates of child malnutrition based on the NCHS reference into estimates based on the WHO standards.

Sixty-eight surveys from the WHO Global Database on Child Growth and Malnutrition were analysed using the WHO standards to derive estimates of underweight, stunting, wasting and overweight. The prevalences based on the NCHS reference were taken directly from the database. National/regional estimates, with a minimum sample size of 400 children, were used to develop the algorithms. For each indicator, a simple linear regression model was fitted, using the logit of WHO and NCHS estimates as, respectively, dependent and independent variables. The resulting algorithms were validated using a different set of surveys, on the basis of which the point estimate and 95% confidence interval of the predicted WHO prevalence were compared to the observed prevalence.

In total, 271 data points were used to develop the algorithms. The correlation coefficients were all greater than 0.90, indicating that most of the variability of the dependent variable is explained by the fitted model. The average difference between the predicted WHO estimate and the observed value was < 0.5% for stunting, wasting and overweight. For underweight, the mean difference was 0.8%. The proportion of the 95% confidence interval of the predicted estimate containing the observed prevalence was above 90% for all four indicators.

The authors conclude that in order to obtain comparable data concerning child malnutrition, individual survey data should be analysed using the WHO standards. When the raw data are not available, the algorithms developed in the study provide a highly accurate tool for converting existing NCHS estimates into WHO estimates.

¹ Yang, H and de Onis, M (2008). Algorithms for converting estimates of child malnutrition based on the NCHS reference into estimates based on the WHO Child Growth Standards. *BMC pediatrics*, pp 1-6. <http://www.biomedcentral.com/1471-2431/18/19>



A family in an IDP camp in DRC

WFP/Marcus Prior, DRC, 2008

Towards better documentation of mortality in crises

Summary of research¹

A recently published article identifies the two main functions of mortality data in crises as the support of relief operations and evidence-building for advocacy/documentation. The authors then attempt to summarise how mortality within crisis-affected populations is documented at present, present their perceptions of the barriers to better mortality measurement and suggest ways by which these barriers might be overcome. Key issues raised in the article include the following:

The adoption of comprehensive mortality surveillance globally appears very limited. Although surveillance takes place in refugee camps (up to 8 million worldwide), there are 25 million internally displaced people (IDPs) and many more living in crisis conditions who are not under surveillance. Retrospective surveys are often employed but suffer a variety of methodological weaknesses, e.g. analysis and reporting may take weeks, results reflect past mortality, confidence intervals often overlap emergency thresholds and since cluster sampling is almost always used, estimates for different sub-regions within the surveyed area cannot be generated unless stratification is built into the sampling design a priori. There is, however, much work taking place to strengthen surveys, e.g. use of high-resolution satellites, expanding roll of telecommunications, etc.

Different players are involved in collecting mortality data, e.g. United Nations (UN) agencies, non-governmental organisations (NGOs) and local governments. However, there is a lack of coordination and efforts are piecemeal. Local governments often lack technical capacity or are not interested in documenting impact of conflicts that they are parties to, while the UN system's track record of documenting mortality and International Humanitarian Law (IHL) violations is poor. NGOs and human rights organisations and academics have partly filled the data collection void but have variable technical expertise, are often characterised in the press or by parties to the conflict as being biased and agenda driven, and can easily be barred from working by host governments.

Other issues relate to the political sensitivities of mortality data and the difficulties of collecting data in situations of conflict and insecurity.

The authors argue for the establishment of a technical, apolitical body dedicated to timely, systematic collection of valid mortality data, especially in the least funded and publicised crises. Such a body could independently evaluate mortality study protocols and reports, promote best practice methods and train a cadre of researchers to be deployed to emergency crises. It could also constitute a resource for relief

agencies and improve the quality of press coverage and discussion around ongoing crises. The fledgling Health and Nutrition Tracking Service, currently hosted by the World Health Organisation (WHO), proposed to coordinate some of the above tasks. However, if housed within a UN agency or government, its effectiveness might be hindered by negotiations between UN headquarters, the UN country office and the host government. The independence of such a body is critical and could be fostered through a number of measures, e.g. non-earmarked, long term funding by a very broad spectrum of donors with preference for politically neutral ones, ability to pursue projects without consulting donors, involvement of experts based on technical merit alone, etc.

The authors list a number of key future actions for better mortality documentation in crisis:

- Define best practices and develop simple tools for emergency mortality surveillance implementation and analysis.
- Promote and implement prospective surveillance systems as soon as possible after the onset of the crisis.
- Enhance communications among researchers, policy makers, the media and civil society to widen understanding of the strengths and limitations of various sources of mortality information in crises.
- Train a cadre of junior field researchers in emergency surveillance and survey methods, including NGO and UN staff, academics, and local government scientists.
- Compare various approaches to mortality estimation, and, if necessary do studies to establish the relative validity of various methods (including sampling and questionnaire design).
- Explore new methods for remote data collection (including remote surveys and satellite data analysis) and mortality prediction (including mathematical modelling).
- Establish a global process for evaluating the performance of donors by monitoring key indicators of population health in their funded projects, including mortality.
- Establish an independent body in charge of collecting mortality data on a systematic basis, especially in under-publicised and under-funded crises.
- Establish an independent expert panel (possibly housed within the above body) to arbitrate disputes about study validity, review study protocols and reports, and define best practices for mortality data collection in crises.

¹ Checchi, F and Roberts, L (2008). Documenting mortality in crises: what keeps us from doing better? *PLoS Medicine*. July 2008, volume 5, issue 7, p1-8. Open-access article available at <http://medicine.plosjournals.org>

Effect of body shape on weight-for-height and MUAC in Ethiopia

Summary of research¹



In November 2005, a survey undertaken in rural areas of Belete Weyne district of Somalia by Save the Children UK (SC UK) found that standard Weight for Height Z-scores (WHZ) and Mid Upper Arm Circumference (MUAC) based case-definitions returned different estimates of the prevalence of acute malnutrition in pastoralist and agro-pastoralist livelihood zones. However, they produced similar estimates of the prevalence of global acute malnutrition in the riverine-agrarian livelihood zone. A small study undertaken to investigate this finding determined that children from the pastoralist and agro-pastoral livelihood zones tended to have longer limbs and lower sitting to standing height ratios than children from the riverine-agrarian livelihood zone.

In May 2006, the Emergency Nutrition Co-ordinating Unit of the Government of Ethiopia, funded by UNICEF with personnel and logistics support provided by SC UK and Concern Worldwide, initiated a study to investigate the relationship between WHZ and body-shape and the relationship between MUAC and body-shape in different populations.

Six cross-sectional nutritional anthropometry surveys were undertaken. The combined survey datasets formed the study sample. Data sources were grouped according to the livelihood zone from which data originated. Case definitions of acute malnutrition using WHZ calculated using both the NCHS and WHO reference populations and MUAC uncorrected for age or height were used. The sitting to standing height ratio was used as an index of body shape. The association between body shape and different case definitions of acute malnutrition were investigated using standard statistical techniques.

WHZ and MUAC case-definitions yielded similar estimates of the prevalence of acute malnutrition in agrarian children but different estimates of the prevalence of acute malnutrition in pastoralist children. These populations also exhibited different sitting to standing height ratios. Sitting to standing height ratio was an important predictor of weight-for-height. Sitting to standing height ratio was a poor predictor of MUAC.

The authors found that WHZ and WHZ case-status in children are associated with body shape and may overestimate the prevalence of acute malnutrition in some populations. Their conclusion is that consideration should be given to whether WHZ should be replaced by MUAC for the purposes of estimating the prevalence of acute malnutrition.

For further information, contact Mark Myatt via website: www.brixtonhealth.co

¹ Myatt, M et al. In press. The effect of body shape on weight-for-height and mid upper arm circumference based case-definitions of acute malnutrition in Ethiopian children. Accepted for publication in 'The Annals of Human Biology', due out in early 2009.

Operational study on SAM management in high HIV prevalence area

Summary of published research¹

In a hospital-based HIV prevalence study in Southern Malawi, 40% of the malnourished children tested HIV positive and HIV infection contributed to over 40% of all paediatric deaths. Nutrition Rehabilitation Unit (NRU) mortality was 28% and the inpatient case fatality rate for children with kwashiorkor was 30.5%. Difficulties in accessing food and medication supplies and in staff training and motivation were identified as factors undermining recovery.

In the same hospital, NRU research using peanut-based ready to use therapeutic food (RUTF) had demonstrated good weight gains and cure rates of 86% and 75% for HIV-negative and HIV-positive children respectively. However, these encouraging results were recorded in children recruited after stabilisation and did not address the ongoing high inpatient mortality.

The Malawi Ministry of Health and Population shared concerns about the continuing poor outcomes and agreed that a new treatment approach be evaluated. A study was therefore set up to assess the clinical outcomes, primarily recovery and case fatality rates, of a novel combined approach to treatment of severe acute malnutrition (SAM) using:

- an initial inpatient stabilisation phase, based on World Health Organisation (WHO) guidelines
- a subsequent outpatient recovery phase using a locally produced RUTF.

The study employed an operational prospective cohort study implemented in a referral hospital in southern Malawi between May 2003 and May 2004. Patient outcomes were compared with international standards and with audits carried out during the year preceding the study.

The study found that inpatient mortality was 18% compared to 29% the previous year. Programme recovery rate was 58.1% compared to 45% the previous year. The

overall programme mortality rate was 25.7%. Of the total known HIV seropositive children, 49.5% died.

The outpatient treatment protocols used in this study differed from traditional community management of acute malnutrition (CMAM) protocols, in that treatment was centralised and all cases of SAM were initially admitted as inpatients. This placed high demands on families accessing care and may be a factor that contributed to delayed presentation (a total of 53.1% of inpatient deaths occurred within 4 days of admission, suggesting that children were very sick on admission). Allowing families to access care in their local clinic could reduce their opportunity costs, encourage earlier presentation and thereby reduce the proportion who present with medical complications. A pilot site that provided outpatient care from one rural clinic during this study was welcomed by carers and showed low default and high cure rates. A decentralised CMAM intervention in a high HIV prevalence area would need to ensure access to HIV and other diagnostic testing and clinical treatment facilities using well-defined referral criteria.

In conclusion, the inpatient mortality and cure rates improved compared to pre-study data but the overall mortality rate did not meet international standards. Additional interventions will be needed if these standards are to be achieved. This will require a combination of interventions including linkages to HIV support, testing and treatment services, decentralised outpatient treatment with RUTF for all children with uncomplicated SAM and provision of timely and specialised paediatric inpatient care for children with severe concurrent infections. The value of these additional interventions will need further assessment.

¹ Sadler, K et al (2008). Improving the management of severe acute malnutrition in an area of high HIV prevalence. *Journal of Tropical Pediatrics Advance Access* published May 1st 2008, pp 1-6





Cooking F75 using flour

'Local' versus industrially produced therapeutic milks in managing severe malnutrition

By A Ould Sidi Mohamed, M. Diagana, Federica Riccardi, Abimbola Lagunju, Jean-Pierre Papart and Rebecca Norton.



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M Diagana is a paediatrician, responsible for the nutritional unit located in the paediatric ward of the National Hospital.



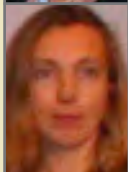
Federica Riccardi is the Fondation Tdh delegate in Mauritania.



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For the past eight years, Fondation Terre des hommes (Fondation Tdh) have been working in Mauritania, opening a nutritional unit for managing acute malnutrition in 2000. Since 2007, this unit has been fully integrated into the paediatric ward of the Nouakchott National Hospital where children with severe acute malnutrition are managed, with ongoing support from Fondation Tdh. Six to seven years ago, Fondation Tdh operated community centres for case management of malnutrition. However, poor coordination with primary health care (PHC) centres meant that outcomes were often poor. In the past year, Fondation Tdh has focused efforts on strengthening the national nutrition unit and integrating it into the national paediatric facility.

Fondation Tdh has been involved in nutrition projects around the world for many years and has always advocated for a developmental approach to the treatment of severe malnutrition by using local resources. As well as encouraging sustainability, such an approach empowers individuals and communities and strengthens existing government structures, such as Nouakchott National Hospital. In order to strengthen the development of a sustainable strategy for the treatment of severe malnutrition in Mauritania, a study was conducted by Fondation Tdh in 2007/08, to investigate the therapeutic effectiveness of F75 and F100 prepared with ingredients that can largely be locally sourced ('local') versus the industrially produced ('industrial') version. Specifically, the objective of this study was to help the paediatric ward develop a position and policy on the use of therapeutic industrially produced preparations increasingly being promoted by various international agencies.

Patient profile in the National Nutrition Unit

Between January 2006 and December 2007, the nutrition unit admitted 487 children (293 boys and 194 girls). The majority of these children were aged between 6 months and 2 years (76.1%), the group at highest risk of malnutrition. Only 2.5% of the children were younger than 6 months and 21.4% were aged between 2 and 5 years. During the same period, the recovery rate in the nutrition unit improved significantly from 55.6% to 65.7% ($p=0.013$), while mortality rate decreased from 30.2% to 21.1% ($p=0.030$). All the children admitted to the nutritional unit in 2006-2007 were complicated cases of severe malnutri-

tion. Children had generally lost appetite, 13.3% had oedema and the majority had associated medical complications (Table 1). At admission, cases without oedema were very severely wasted, with a mean weight for height z score (WHZ)¹ of -4.8 in 2006 and -4.7 in 2007. These all point to children presenting in the latter stages of severe acute malnutrition.

Pooled data for 2006 and 2007 (Table 2) show that mortality rates were particularly high for infants under 6 months of age, although these only comprised a small number of the overall case load and consequently it is not possible to draw conclusions. Data for the same period (Tables 3, 4 and 5) also showed that deaths in the total group did not just occur in the first few days following admission, but well into treatment. While the death rate still remains high, a significant reduction has been achieved in overall mortality compared to the peaks of 30% in 2006, through improvement in the quality of care.

Study Method

Between September 2007 and February 2008, 122 children with severe acute malnutrition admitted to the Specialised Nutrition Unit participated in the randomised study. The trial tested two different therapeutic protocols:

- 'Local' therapeutic milk: F75 and F100 therapeutic milks prepared with dried milk powder, flour (for F75), sugar, oil, water and a mineral complex rich in potassium² (protocol A)
- 'Industrial' therapeutic milk: Pre-packaged F75 and F100 requiring reconstitution with water only³ (protocol B).

Children were alternately allocated to one of the two arms of the study on arrival in the unit.

The 'local' F75 and F100 preparations in protocol A were all based on products that may be sourced in the vicinity, with the exception of the mineral complex (C.M.V Therapeutic) sourced from Nutriset, France. In Mauritania, the milk powder was provided by Fondation Tdh, which was received as a donation from the Swiss government. Protocol B utilised products produced in France.

Preparation of 'local' therapeutic milk is slightly more complicated and the nurses needed

¹ A Weight for height z score of less than -3 SD is used as admission criteria.

² CMV Therapeutic, sourced from Nutriset, France

³ Produced by Nutriset, France

Table 1: Associated pathologies at admission

Pathology	2006	2007	Significance
Fever	66 (28.0%)	78 (31.1%)	$p = 0.452$
Hypothermia	18 (7.6%)	11 (4.4%)	$p = 0.130$
Vomiting	49 (20.8%)	114 (45.4%)	$p < 0.001$
Diarrhoea	166 (70.3%)	177 (70.5%)	$p = 0.996$
Dehydration	154 (65.3%)	130 (51.8%)	$p = 0.003$
Stomatitis	52 (22.0%)	59 (23.5%)	$p = 0.699$
Anaemia	167 (70.8%)	132 (52.6%)	$p < 0.001$
Dermatitis	25 (10.6%)	19 (7.6%)	$p = 0.245$
Urinary infection	12 (5.1%)	13 (5.2%)	$p = 0.962$
Tuberculosis	14 (5.9%)	5 (2.0%)	$p = 0.025$
Otitis	4 (1.7%)	6 (2.4%)	$p = 0.589$
Dysentery	24 (10.2%)	25 (10.0%)	$p = 0.939$
HIV	12 (5.1%)	9 (3.6%)	$p = 0.416$
Malaria	10 (4.2%)	8 (3.2%)	$p = 0.539$
Pneumonia	18 (7.6%)	18 (7.2%)	$p = 0.848$
Meningitis	0 (0.0%)	0 (0.0%)	n/a

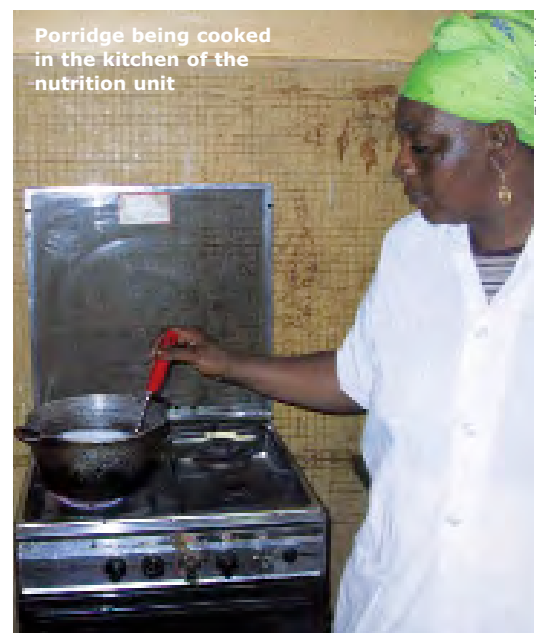


Table 2: Pooled data for mortality of admissions to the Specialised Nutrition Unit (2006/07)

Sex		Age			Total
		< 6 months	6 - 23 months	24 - 60 months	
Boys	Survivors	4	171	46	221
		57.1%	77.0%	73.0%	75.7%
	Died	3	51	17	71
		42.9%	23.0%	27.0%	24.3%
	Total	7	222	63	292
		100.0%	100.0%	100.0%	100.0%
Girls	Survivors	2	109	32	143
		40.0%	73.6%	78.0%	73.7%
	Died	3	39	9	51
		60.0%	26.4%	22.0%	26.3%
	Total	5	148	41	194
		100.0%	100.0%	100.0%	100.0%

Table 3: Time of death (days) from admission (day 0), for boys and girls

Days before death		Sex		Total
		Boys	Girls	
0-2 days		24	19	43
		33.3%	37.3%	35.0%
	3-7 days	26	19	45
		36.1%	37.3%	36.6%
> 7 days		22	13	35
		30.6%	25.5%	28.5%
Total		72	51	123
		100.0%	100.0%	100.0%

P=0.841

Table 4: Time of death (days) from admission (day 0), 2006 versus 2007

Days before death		Year		Total
		2006	2007	
0-2 days		23	20	43
		32.9%	37.7%	35.0%
3-7 days		26	19	45
		37.1%	35.8%	36.6%
> 7 days		21	14	35
		30.0%	26.4%	28.5%
Total		70	53	123
		100.0%	100.0%	100.0%

P=0.837

Table 5: Time of death (days) from admission by (day 0), age-group (2006/2007)

Days before death		Age			Total
		< 6 months	6 - 23 months	24 - 60 months	
0-2 days		2	33	7	42
		33.3%	36.7%	26.9%	34.4%
3-7 days		4	36	5	45
		66.7%	40.0%	19.2%	36.9%
> 7 days		0	21	14	35
		0.0%	23.3%	53.8%	28.7%
Total		6	90	26	12
		100.0%	100.0%	100.0%	100.0%

P=0.012

Table 6: Costs for 'local' versus 'industrial' therapeutic milks (excluding transport costs)

Cost of 'local' therapeutic milk	Cost of 'industrial' therapeutic milk	
	Excluding milk powder cost*	Including milk powder cost*
F100 prepared with skimmed milk	0.31 euro/litre	0.60 euro/litre
F100 prepared with full cream milk	0.17 euro/litre	0.72 euro/litre
F75 prepared with skimmed milk	0.19 euro/litre	0.28 euro/litre
F75 prepared with full cream milk	0.15 euro/litre	0.33 euro/litre

* In Mauritania, Fondation Tdh uses donated milk powder from the Swiss government to prepared 'local' RUTF
 ** A cost for milk powder is included here based on the Swiss official price for dried milk.

Table 7: Consumption of 'local' therapeutic milk versus 'industrial' F100 in Phase 2

	Consumption of F100		
	<80% prescribed amount % (n)	>80% prescribed amount % (n)	Total % (n)
'Local' therapeutic milk	13.7% (7)	86.3% (44)	100% (51)
'Industrial' therapeutic milk	46.3% (25)	53.7% (29)	100% (54)
Total	30.5% (32)	69.5% (73)	100% (105)

to spend some time in the kitchen, while the 'industrial' therapeutic milk simply required mixing powder with measured water. Both preparations need to be refrigerated and used on the day that they are made up. The local ingredients needed for 'local' therapeutic milk are cheaper, with the exception of local F100 made using full cream milk (see Table 6), and their availability is more reliable. Cost and availability were important considerations and motivations for implementing the study.

Results

Of a total sample of 122 children, 60 received protocol A ('local' therapeutic milk) and 62 received protocol B ('industrial' therapeutic milk). The two groups were comparable in terms of age, sex, clinical symptoms and associated pathologies on admission.

The trial found no statistically significant difference (p=0.702) between the two prescribed protocols in terms of recovery, mortality and defaulting. Furthermore, it was observed that the consumption of 'local' F100 in phase II was better - 86.3% of the prescribed quantity compared to 53.7% of the industrially produced product (Table 7). This difference in acceptability was significant (p<0.001) with the higher consumption level probably explaining (without reaching a level of any statistical significance) the fact that children on Protocol A had a shorter period of hospitalisation (by 24 hours on average) when compared with Protocol B children. Throughout 2007, the overall mean length of stay for children who recovered was 13 days.

On discharge, there was no significant difference in the average weight of the children between the two protocols (protocol A or B) (p=0.896). This applied to both the mean weight-height z score (p=0.665) and average weight gain (p=0.721).

Conclusions and discussion

Industrially prepared F75 and F100 formulas did not demonstrate any advantage over locally produced formulas with added mineral-vitamin complex, in the management and outcome of acute severe malnutrition. In addition, the 'local' F100 seemed better accepted by the children. The paediatric ward is still in the process of reviewing whether to use 'local' versus 'industrial' therapeutic products.

In 2009, Fondation Tdh plans to implement community activities and support PHC

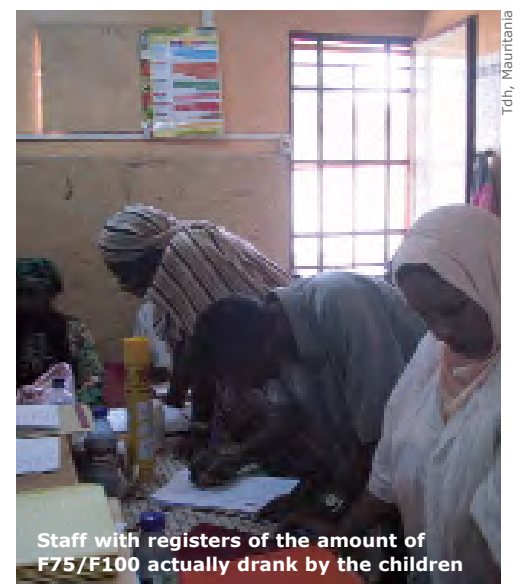
centres in the administrative wards of Nouakchott where there is endemic severe wasting. It is hoped that this will facilitate earlier treatment of malnutrition (in the community) and lead to a reduction of cases presenting with severe complications at the special nutrition unit in the paediatric ward of Nouakchott Hospital.

Fondation Tdh has strong reasons, stemming from our understanding of sustainable development and human rights approach, to argue for maintaining the use of locally made therapeutic milk with added micronutrients (CMV). Not only do locally sourced formulations reduce the dependency on imported ready-formulated products and are therefore more sustainable, but they also ensure that kitchens are maintained in the hospitals. Kitchens are important for social interaction between caregivers and hospital staff. They are also essential for teaching caregivers practical skills to support optimal infant and young child nutrition, for example the preparation of porridges used in phase 2 of treatment of acute severe malnutrition. With complete dependency on industrially produced products, kitchens will disappear and staff will no longer have the skills and experience for carefully preparing locally made versions. With such short sighted strategy, malnourished children also risk being the victims of any breakdown in the supply chain of imported products.

Using local skills and products for the treatment of severe acute malnutrition as much as possible empowers local communities and offers them sustainable solutions, rather than creating a dependency on external, medical 'technical fixes'. Moreover, in the era when concerns over the ecological future of the planet must no longer be overlooked, locally produced milk offers a practice that is generating far less waste in the form of packaging.

An approach firmly embedded in broader understanding of sustainable development and human rights is important in the face of a changing world in which technology is too often portrayed as the 'one fits all' solution to all the problems. Fondation Tdh would very much welcome a debate about these key issues.

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Measuring height during the ACF survey

Impact of community mobilisation activities in Uganda

By David Doledec, ACF-USA



A qualified nurse, David Doledec joined Action Contre la Faim in 2002, working in Democratic Republic of Congo, Sudan, Liberia and Uganda before joining the ACF-USA headquarters team as a Nutrition Advisor in 2007.

The author would like to acknowledge the ACF-USA teams in both Kampala and Lira offices, the village leaders, community health workers, traditional birth attendants and other community members who assisted the teams in their home communities, and the individual families who participated in the survey. The author also acknowledges the work of the consultant, Dr Mark Myatt, who adapted the methodology used in this survey.

In July 2006, ACF-USA implemented an out-patient programme for the treatment of severely malnourished children in the main internally displaced people (IDP) camps of the districts of Lira and Apac, Northern Uganda. ACF-USA nutritional centres were already present in the IDP camps where they also served the resident communities. The beneficiaries admitted at that time were 90% IDPs and 10% from the resident population.

Assessing coverage

In January 2007, ACF-USA enlisted the assistance of a consultant to assess the programme and in particular, to measure its coverage and identify weaknesses. An adaptation of the Centric Systematic Area Sampling (CSAS) methodology was developed to suit the context of the IDP camps and a coverage survey was carried out¹. The survey teams were comprised of ACF-USA local staff, who were mostly IDPs residing in the camps and who had had previously been recruited and trained by ACF USA. The surveys, which took place during a two week period in January 2007, were conducted in the main camps where the nutritional centres were located, followed by further surveys in nearby camps (one centre area was defined as a quadrat).

The results showed that the programme coverage was low^{2,3}:

- Point coverage: 25.8% (95% CI = 15.0%, 39.7%)
- Period coverage: 50.5% (95% CI = 39.3%, 61.9%)

Several of the main contributing factors and programme weaknesses were identified through the survey including:

- Significant interface problems between supplementary and therapeutic programmes – Many severe cases were being treated in the Supplementary Feeding Centres (SFC).
- Poor and inadequate communication with caretakers at time of referral and in the centres – On several occasions, the caretakers reported that the centre staff were either rude

or set out to shame them. Others reported that they had been referred to a centre but were not given a clear date for attending the centres or told where to go for treatment.

- Discrepancies between the referral and admission criteria – This led to high rates of rejection. The admission criteria in the SFCs were MUAC < 120 mm and WHM < 80%⁴, while criteria for referral used by home visitors was MUAC < 125 mm. Several referred children were rejected from centres due to these inconsistencies.

Identification of these problems resulted in a complete re-organisation of the programme. Supplementary feeding and outpatient therapeutic programme (OTPs) centres were integrated into a single unit with teams combined into one. Trainings were provided for all staff members and a community mobilisation campaign was started in March 2007, following Valid International guidelines⁵.

Monitoring progress

In order to monitor programme performance as well as the progress and impact of the community mobilisation activities, a second coverage survey, using the traditional CSAS methodology, was conducted in January 2008. However, the situation in the main IDP camps of the districts had changed since the previous coverage survey leading to substantial population changes. In early 2007, a massive return process began in the districts of Lira, Apac and Oyam. Between March and November 2007, 99.5% of the 466,103 IDP's were reported to have left the camps to return to their areas of origin⁶. Such massive population movements were likely to result in a significant impact on the programme and its coverage.

Following the 2008 survey, the coverage rates were found to be:

- Point Coverage: 37.8% (95% CI = 23.8% – 53.5%)
- Period Coverage: 54.1% (95% CI = 40.8% – 66.9%)

The survey highlighted three main reasons for severe cases of malnutrition not being enrolled in the programme. These were a lack of awareness about malnutrition and the programme, a lack of time for caretakers to attend the distribution centres, and too lengthy a distance to reach the closest centre. Problems that were identified during the 2007 survey appeared to be less of an issue. In addition, the fact that coverage rates had improved in a context where they could easily have worsened (as the population was much more spread out), was seen as encouraging with regard to the efforts that had been made to improve the program. Community mobilisation was still ongoing and seemed to show a positive impact. However, the second coverage survey threw up more questions than answers. As the surveyed communities had faced such a dramatic change with the returnee process, it was not possible to consider the measured coverage rate as an indicator of the effectiveness of the community mobilisation activities.

Evaluating effectiveness of mobilisation

Community mobilisation activities were conducted with the aim of developing a comprehensive detection and referral network at the community level. In addition, through regular meetings in all communities, it aimed to improve people's awareness of malnutrition, its prevention and the treatment programme. In order to evaluate the effectiveness of the community mobilisation activities, the team collected several indicators:

a) The referral system

Figure 1 highlights clearly that the level of referral from the community increased significantly throughout the year. Community mobilisation activities had an impact on both referrals from the community volunteers trained by the nutrition team and on self-referrals. 'Other' data mainly represents referrals through nutrition surveys and screenings conducted by the team in non-catchment areas.

b) Attendance

Admission trends is another set of information to consider in conjunction with data on referrals. As shown in Figure 2, monthly attendance in the programme increased significantly in 2007 compared with 2006. As a result of this increase, the team increased the number of centres from 5 to 10, as well as opening a therapeutic feeding centre (stabilisation centre) in the area.

c) Prevailing malnutrition rates

An analysis of attendance in the TFP requires knowledge of the changing rates of acute malnutrition in the population. As can be seen in Tables 1 and 2, the rates of acute malnutrition, though steady in the Apac and Oyam districts, had increased slightly in Lira district since 2005⁷.

d) Other factors

It is also necessary to consider important factors or events that may impact attendance and referral indicators, as well as community mobilisation itself. If massive population movements occur in areas where community mobilisation

¹ All survey reports are available on ACF-USA website, <http://www.actionagainsthunger.org> under Resources

² SPHERE standards recommend 70% coverage in IDP / refugee camps settings

³ CI: Confidence Interval

⁴ MUAC: Middle Upper Arm Circumference, WHM: Weight for Height % of the median

⁵ Community-based Therapeutic Care Manual. Valid International. Available at <http://www.validinternational.org>

⁶ IASC working Group report, November 2007

⁷ Results expressed using the NCHS reference tables (1977).

activities have already been implemented, it is likely that the same mobilisation process will need to be conducted again. Several communities in Northern Uganda increased dramatically in size during the return process. The team therefore had to go back to these communities to train more community volunteers in community mobilisation.

Conclusions

There is now a wide range of evidence showing the positive impact of community mobilisation on the treatment of acute malnutrition. It improves programme coverage, acceptance and sustainability. However, measuring the actual outcomes of community mobilisation requires an analysis of the whole programme, as coverage surveys alone cannot fulfil this objective, especially in complex and rapidly evolving contexts. A comprehensive understanding of a programme is therefore only possible through analysis of a wide range of available information, including malnutrition rates, coverage rates, referrals to nutritional centres, attendance, and context analysis.

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Figure 1: Referral System in ACF-USA TFP, Apac/Oyam/Lira districts, 2007

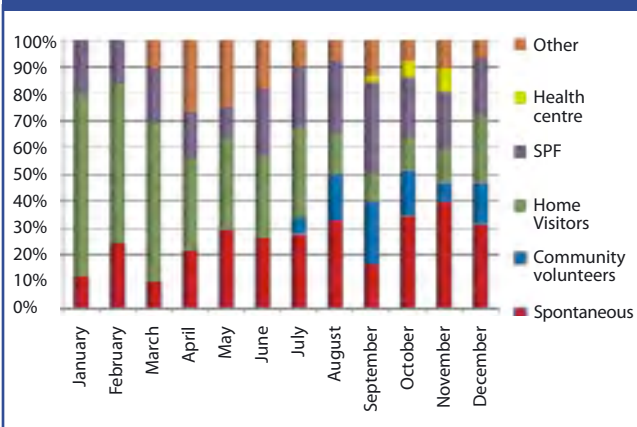


Figure 2: Monthly admissions in the ACF-USA OTP and TFC, Apac/Oyam/Lira districts, 2006 - 2007

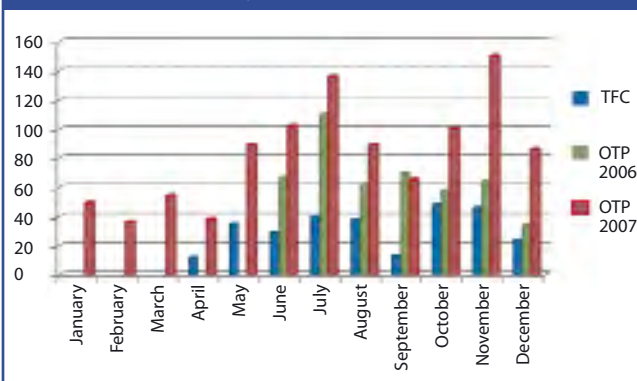


Table 1: Results of nutrition surveys in Lira district

LIRA DISTRICT	February 2005 (n=965)	May 2006 (n=921)	April 2007 (n=651)
Global Acute Malnutrition (W/H <-2 Z-scores and/or oedema)	1.90% (0.9% - 3.7%)	5.90% (3.9% - 8.6%)	7.10% (4.5% - 9.7%)
Severe Acute Malnutrition (W/H <-3 Z-scores and/or oedema)	0.60% (0.1% - 2.0%)	0.70% (0.1% - 2.1%)	0.80% (0.1% - 1.4%)

Table 2: Results of nutrition surveys in Apac and Oyam districts

APAC / OYAM DISTRICTS	February 2005 (n=956)	April 2006 (n=900)	April 2007 (n=669)
Global Acute Malnutrition (W/H <-2 Z-scores and/or oedema)	4.40% (2.8% - 6.8%)	4.70% (2.9% - 7.2%)	4.60% (3.0% - 6.3%)
Severe Acute Malnutrition (W/H <-3 Z-scores and/or oedema)	1.40% (0.5% - 3.0%)	0.80% (0.2% - 2.3%)	0.90% (0.0% - 1.9%)

International Workshop on Integration of CMAM



The International Workshop on the Integration of Community-Based Management of Acute Malnutrition (CMAM), held between 28th and 30th of April 2008, was the third in a series of workshops on CMAM over the past five years. The workshop was convened by FANTA (Food and Nutrition Technical Assistance) at the request of USAID. Due to the growing demand for implementation and integration of CMAM in many countries, the overall goal of this workshop was to "share experiences and identify the main challenges to integration and scale up of CMAM at country level."

The workshop was successful in providing a clear idea of where and how CMAM is being implemented, as well as in raising a number of issues regarding the scale up of CMAM and its integration with national programmes. Key findings from the workshop were as follows:

Integration of CMAM and the process through which it is achieved is context specific and can occur to various degrees and through different means. Community based management of severe acute malnutrition (SAM) services can be integrated into all or some routine health services, or throughout the health system as part of the health service delivery strategy or essential health care package mandated by the Ministry of Health (MOH). There are also contexts where integration will not be appropriate and services will run in parallel to the MOH. This does not, however, preclude CMAM services from falling under the technical leadership of the MOH.

MOH leadership is always essential for successful integration. Other key elements necessary for successful integration have been identified and elaborated upon through the development of an **integration framework**. This framework – which summarises key elements for CMAM and encompasses the enabling environment, access to services and supplies, and quality of services and competencies - can be used to assess capacities, available resources and gaps that need to be addressed to facilitate successful integration of CMAM.

Capacities need to be strengthened at most levels of a health system to achieve successful integration and scale up of CMAM within that system. Lack of qualified health care providers creates heavy workloads within existing health systems. Integration of CMAM within these health systems will serve to exacerbate these work loads and strain existing health systems, as the acquisition of new skills and adoption of new procedures will be necessary.

Simplicity is a key factor in integration, sustainability and scale-up. There is a need for simple protocols and monitoring and evaluation (M&E) tools to facilitate implementation, quality assurance and

capacity strengthening. Despite the need for further research on the role of Mid Upper Arm Circumference (MUAC) as an indicator for monitoring and discharge, its use as an indicator for admission is a viable way for sustainability of services because of its simplicity and compatibility with easy and early case finding and referral in the community.

Low production and transportation costs for Ready to Use Therapeutic Foods (RUTFs) and Ready to Use Supplementary Foods (RUSFs) are essential for successful integration of CMAM. Achieving low costs will require increasing the economies of scale. This, in turn, is reliant on increasing demand for CMAM and programmes to address Moderate Acute Malnutrition (MAM) through supplementary feeding. Given the need for capacity strengthening to integrate CMAM successfully, a delicate **balance must be maintained between matching supply of, and demand for, CMAM services.**

There are numerous outstanding questions and gaps in the knowledge regarding scale up and integration. These include broad questions like whether existing Sphere Standards are applicable to large-scale CMAM programming, what models exist for financing scale up and integration, and what are the long-term outcomes of programmes which have been scaled up and integrated within existing systems. More specific questions include explanations for disparities in outcomes between HIV-positive patients in outpatient therapy versus hospitals, and the role of proportional weight gain as a criterion for discharge from programmes.

Open and frequent sharing of information is critical. Sharing information and experiences in real time – between implementers in the field, as well as between implementers and more experienced practitioners or scientific experts – is critically important. There may be a variety of mechanisms for achieving this, including the establishment of an interactive electronic forum where field staff can post experiences and queries, and where those with appropriate experience and expertise can provide support and advice.

A copy of the proceedings of the workshop, prepared by the ENN, is included with this issue of Field Exchange and is also available online at www.enonline.net or from Tula Michaelides, FANTA, email: tmichaelides@aed.org

Latest version of NutVal available

The latest version of the NutVal 2006 spreadsheet application for planning and monitoring the nutritional content of general food aid rations is now available. The programme is an Excel Spreadsheet (Version 2) and was released in August 2008. The programme was developed by WFP with input from University College London and with financial support from WFP, UNHCR, UCL Futures, and the IASC Global Nutrition Cluster.

This tool can be used to design rations and see the contribution of a ration (and food aid commodities) to meeting the major nutrient needs for the whole population or by age (e.g. under fives) or physiological status (e.g. pregnant and lactating women). The following requirements are included: energy, protein, fat,

calcium, iron, vitamin A, Thiamine, riboflavin, niacin and Vitamin C. Foods commonly found in food aid baskets are included in the database of 145 foods.

Food commodity pricing was included in earlier versions of NutVal. However, due to the recent sharp increases in food prices and continuing market volatility, it was considered no longer possible to provide a meaningful guide price for planning purposes. A correction on the energy requirement calculation for lactation has also been included in Version 2.

The Spreadsheet tool may be downloaded from <http://www.nutval.net/>

Email comments or suggestions for improving the tool to: support@nutval.net



Updated Nutrition Society Information Sheets

The Nutrition Society Interim Professional Body for Nutrition has updated its Information Sheets 1-4. These are particularly for nutritionists in low-income countries. Sheet 1 lists low-cost print/hard copy newsletters and journals, Sheet 2 lists sources of low cost print materials, Sheet 3 includes sources of CD-ROMs and Sheet 4 details email/website access to discussion forums, news and publications.

The sheets are available online, from www.nutritionssociety.org click [Nutrition Profession] and then [Developing practice] or access via the direct link <http://www.nutritionssociety.org/index.php?q=node/42>.

Please send additions and corrections for these sheets to email: professional@nutsoc.org.uk or annpatriciaburgess@yahoo.co.uk

FANTA Guide to monitoring and evaluation of nutrition assessment, education and counselling of people living with HIV



The Food and Nutrition Technical Assistance (FANTA) Project has recently released 'A Guide to Monitoring and Evaluation of Nutrition Assessment, Education and Counseling of People Living With HIV'. The guide provides guidance and tools to support programmes in monitoring and evaluating (M&E) nutrition interventions for people living with HIV. It is designed for use by programme managers, M&E officers and other programme and government health system staff who are responsible for designing and implementing M&E systems. The guide can be used to select indicators, set targets, plan data collection and tabulation processes and interpret and use the information obtained.

Support for this guide was provided by USAID/East Africa and USAID's Bureau for Global Health, Office of Health, Infectious Disease and Nutrition. The guide can be downloaded from FANTA's website at www.fantaproject.org

New MUAC Community Website

A free and open site for the dissemination and discussion of issues related to the use of *mid-upper arm circumference* (MUAC) has been recently set up. Topics will include (but are not restricted to) case definitions, surveys, and patient monitoring.

To join, you will need to provide a user name and valid email address.

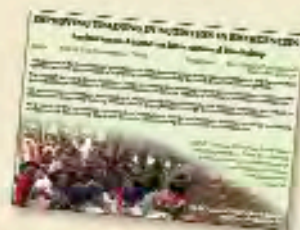
Anyone can view the stories and comments on the site and view/download files attached to stories. Authenticated users can create and edit their own stories, upload and attach files or delete their own stories. Users can also comment on their own and other's stories.



Visit the MUAC Community Website at: <http://tng.brixtonhealth.com/>

Workshop on Improving Training in Nutrition in Emergencies

A workshop on 'Improving Training in Nutrition in Emergencies' will be held on 6th and 7th November 2008 in Nairobi, Kenya.



The workshop is an initiative of the Global Nutrition Cluster, an umbrella group of humanitarian agencies led by UNICEF. The Nutrition Cluster has identified the need for better capacity to respond to nutritional issues within countries affected by emergencies, as well as the importance of developing effective and sustainable emergency nutrition training courses.

For the first time, universities, training institutions and humanitarian agencies will be brought together to discuss how to improve training and capacity in emergency nutrition. Workshop participants will also be introduced to the new Harmonised Training Package (HTP). Developed by the Nutrition Cluster, the HTP consists of 21 modules covering all aspects of nutrition in emergencies¹.

The workshop has the following objectives:

- To establish a network of southern and northern universities and training institutions providing training in nutrition in emergencies.
- To identify options for disseminating the HTP by integrating within established short courses, diplomas and master's programmes, as well as wider nutrition and health courses.
- To identify opportunities for the academic accreditation of nutrition in emergency training courses.
- To explore approaches for better integrating academic training courses with field and on-the-job training and other types of sustainable training initiatives, through partnerships with government ministries and civil society groups, as well as operational humanitarian agencies.
- To create awareness of the HTP, disseminate materials, and start the process of developing a database of potential trainers.

The expected outputs from the workshop will be an agreement on the key elements of a proposal for funding with the following sections:

- Practical steps for the creation and maintenance of mutual linkages between the network institutions and sharing of skills, teaching resources and personnel.
- Memorandum of understanding for the network and roles and responsibilities.
- Identified number of institutions that will use the harmonised training package materials in priority countries and regions where integration with operational agency programmes is feasible.
- Indicative costs for the dissemination of the HTP over five years.
- A draft budget.

Around 40 participants are expected to attend the workshop which is being arranged by NutritionWorks, a partnership of international nutritionists based in London, and the Centre for International Health and Development, University College London.

For more information, contact: Carmel Dolan, email: Cmadolan@aol.com

¹ Visit the Nutrition Cluster website to access all 21 modules, <http://www.humanitarianreform.org>

Valid International's new Social Research Unit (SRU)

As part of its efforts to broaden the range of services offered to the humanitarian and development community, Valid International has officially launched the new Social Research Unit (SRU). The SRU was created with one aim in mind: to provide reliable qualitative data to help humanitarian programmes make informed operational decisions. The unit brings together sociologists, anthropologists and linguists with extensive experience working in humanitarian programmes around the world (including Algeria, Burundi, Chad, Democratic Republic of Congo, Djibouti, Ethiopia, Ghana, Indonesia, Kenya, Malawi, Mozambique, Niger, Sierra Leone, Sudan, Uganda and Zambia)

The SRU is looking to expand and strengthen existing partnerships with international non-governmental organisations (INGOs), governmental institutions, United Nations (UN) agencies operational research bodies in the fields of Health and Nutrition, Education, Water and Sanitation, and Food Security.

In particular, the SRU is committed to assisting partners in exploring the socio-cultural dimensions of humanitarian programming and the contextual factors influencing programme performance. The SRU offers various support packages, in areas such as:

- Health seeking behaviour and programme uptake
- Local perceptions of illnesses and traditional paths to treatment
- Participatory, beneficiary-focused assessments of humanitarian interventions
- Social networks and support structures
- Social policy and planning
- Stigma and socio-cultural responses to HIV/AIDS
- Socio-political mapping – including key community figures and structures
- Traditional birthing, feeding and child rearing practices
- Health and Nutrition Education

For more information about the services offered by the Social Research Unit please contact Saul Guerrero, email: saul@validinternational.org



Meeting on approaches to address moderate malnutrition in emergencies

The Emergency Nutrition Network (ENN) and Save the Children UK (SC UK) recently held a meeting on approaches to address moderate malnutrition in emergencies (29th-30th May 2008). This followed a study undertaken in 2006-7 reviewing the effectiveness of supplementary feeding programmes (SFPs) in emergencies¹. The study highlighted a number of weaknesses of current emergency SFPs and made recommendations for improved supplementary feeding programming, including exploration of alternative approaches to address moderate malnutrition. This led to the preparation of three draft research protocols and one project proposal (Box 1) prepared by Dr Carlos Navarro-Colorado, independent consultant, on behalf of ENN and SC UK. This work and post-meeting revisions were funded by USAID's Office for Disaster Assistance (OFDA). The participants at the meeting represented academic, non-governmental organisations (NGOs), United Nations (UN) agencies and donor constituencies.

The specific objectives of the meeting were to:

- Finalise research protocols by resolving outstanding questions and reach agreement on protocols.
- Gain expressions of interest to support the research by technical experts, implementing agencies and donors.
- Identify potential project sites for research and where there are gaps.
- Consider implementation issues, e.g. resources, pre-planned versus opportunistic, ethics, institutional coordination, etc.
- Reach agreement on minimum reporting guidelines and a proposal to implement guidelines across agencies.

Day one of the two day workshop began with a recap of the SFP review and an introduction to the rationales for the proposed protocols. The protocols were presented alongside outstanding methodological questions. Working groups were convened to discuss the research protocols and address questions. Working groups then fed back to plenary session.

The second day began with a plenary session, aimed at resolving outstanding questions and

clarifying minimum reporting guidelines and the related proposal. Interest amongst agencies in using a minimum reporting template and submitting data to a central repository was gauged. Plenary participants were then asked to pledge interest and commitment to participating in one or more of the research studies. Working groups then reconvened to address research implementation questions and issues: agency involvement, locations for studies, resourcing, ethics, and institutional coordination. This was followed by a plenary session to discuss working group findings. The day concluded with a presentation from the participating donors on their areas of work where relevant to the meeting and potential interest in supporting the research.

Main outcomes of the meeting

There was a high level of support for a research programme to strengthen approaches to address moderate acute malnutrition in emergencies.

A number of specific recommendations for modification to individual research protocols and the minimum reporting proposal were made.

Agencies (international NGOs, UN and donors) and individual academics pledged interest and support for one or more of the studies/proposals.

Ways forward

The three research protocols and the minimum reporting proposal are being refined based on input from the meeting, scheduled for completion by the end September 2008. The Minimum Reporting Standards proposal and a proposal to fund the defaulting project (Protocol 3) were prioritised and have subsequently secured funding from OFDA for implementation from 31 September 2008 (see news piece this issue, p18).

For further information and minutes of the meeting, please contact: Frances Mason, SC UK, email: F.Mason@savethechildren.org.uk or Jeremy Shoham, ENN, email: jshoham@easynet.co.uk

¹ A Retrospective Study of Emergency Supplementary Feeding Programmes. Dr Carlos Navarro-Colorado. June 2007 Save the Children UK, Emergency Nutrition Network. Available at www.enonline.net

Box 1: Summary of Draft Research Protocols/Proposals

Protocol One: Comparison of the cost-effectiveness of three different approaches to addressing moderate malnutrition at population level in emergencies versus the standard response of a general food distribution (GFD) in combination with targeted SFPs using fortified corn soya blend (CSB) (control group). The three comparative approaches are:

Approach one: Comparison with an expanded general ration of approximately 2400 kcals per capita per day with additional calories provided by fortified CSB (ideally located in multi-camp settings).

Approach two: Comparison with a cash distribution of equivalent value to the GFD and SFP (located within resident populations).

Approach three: Comparison with a targeted and blanket distribution of a Ready to Use Food (RUF) (multi-nutrient spread) – ideally conducted in two different regions or countries, one with low and one with high baseline levels of global acute malnutrition (GAM).

Protocol Two: Comparison of the efficacy of treating moderate acute malnutrition with three different food rations in order to determine the relative merits of a selection of different products e.g. Supplementary plumpy and SP-450, compared to a control group receiving CSB-oil-sugar.

Protocol Three: To improve understanding of the phenomenon of default in centre-based SFPs. This is with a view to improving designs that accommodate constraints faced by potential beneficiaries to programme participation in a variety of emergency settings.

Minimum Reporting Standards Project Proposal: Development of a set of minimum reporting standards for SFPs, including:

- the consideration of the development of software to allow easy implementation of these reporting standards, and
- formation of a consortium of agencies which will implement the new reporting format and submit data to a central repository for further analysis.

Valid Nutrition and Insta Products announce collaboration in East Africa

Valid Nutrition (VN) and Insta Products EPZ Limited (Insta) have entered into a collaboration in East Africa covering the provision of Ready to Use Foods (RUF) within the region. Valid Nutrition is a not-for-profit company, registered as an Irish charity, whose goal is to provide appropriate foods for the treatment and prevention of malnutrition to all who need them. Insta is a well established manufacturer of flour based nutritional products for emergency feeding programmes throughout East Africa, working closely with UNICEF, USAID, WFP and other major humanitarian agencies. Insta's plant is based in Nairobi within the duty free zone.

Under the collaboration announced in June 2008, Insta will manufacture under licence and distribute VN's branded range of RUF recipes within East

Africa. A plant will be established in Nairobi alongside Insta's existing operations to service the Kenyan market; it is expected that the plant will be operational by the end of 2008. Operations in other countries within East Africa will be jointly developed either through exports, the establishment of new factories, or collaborations with other third party food manufacturers.

As part of the collaboration, Insta and VN will also undertake joint research into the development of cheaper products, as well as new products specifically for use in treating and preventing under-nutrition.

For more information, contact: Derek Staveley, CEO Valid Nutrition. Email: derek@validnutrition.org
Tel. +353 (0) 86 3800665 Fax: +353 (0) 1 4811794
Website: www.validnutrition.org

Food Security Concepts and Frameworks: new e-learning course



An e-learning course 'Food Security Concepts and Frameworks' is now available, part of a series of food security e-learning courses developed by the EC-FAO Food Security Information for Action Programme.

The e-learning course introduces the concepts and tools used in food security analysis. It also provides practical guidelines on using conceptual frameworks for

analysing food security. Resources for trainers include powerpoint slides, learners' and trainers' notes, and classroom exercises, which can be adapted by institutions to suit their own training needs.

The target audiences are:

- Mid-level managers, technical staff, field personnel who are involved in the collection, management, analysis, and reporting of food security information.
- Planners, policy formulators and programme managers who are involved in monitoring progress in poverty reduction, and meeting food security goals and targets.

The course is available in English, free of charge on-line and on CD-Rom. A French version of the course is forthcoming.

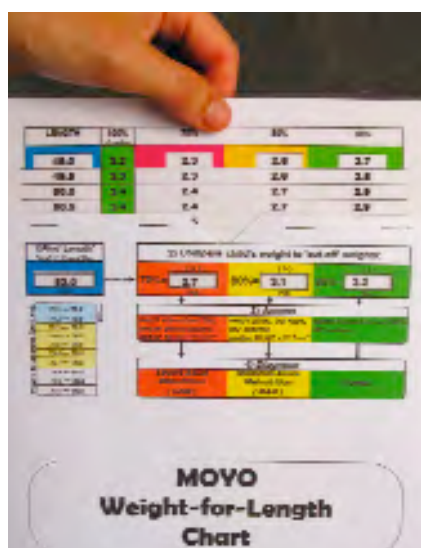
The course is available at http://www.foodsec.org/DL/dlintro_en.asp

To download the resources for trainers, go to: http://www.foodsec.org/tr_res_08.htm

Demystifying Z-scores: feedback needed on a new weight-for-height slide chart

Many readers of Field Exchange will have first hand experience of how challenging field anthropometry can be. To help with accurate, quick, easy assessment of weight-for-height, clinicians working in the MOYO Nutrition Rehabilitation Unit (NRU), College of Medicine, Malawi have developed a new low-cost slide chart (see picture). This provides step-by-step guidance for classifying a child's nutritional status and referring appropriately. Z-scores need no longer be a mystery for field staff! Inserts are available for both NCHS and the new WHO Growth Standards. Full details are due to be published early 2009 in the TROPICAL DOCTOR journal. In the meantime, the components to make the slide chart are available free to download on <http://www.ucl.ac.uk/cihd/research/nutrition/tools>. Plans are also moving forward for a low-cost printed version of the chart.

To ensure that the final printed version of the chart best meets your needs, please send comments and feedback to Marko Kerac, UCL Centre for International Health & Development, email: marko.kerac@gmail.com



ENN secures funding for 'NGOnut revisited'

The ENN has just secured 1 year of funding from USAID/OFDA to create an online interactive forum to provide quick access to technical advice for emergency nutrition staff.

The ENN was approached by a number of people to provide a forum that allows field staff working in the emergency nutrition sector to have rapid access to technical advice and guidance. The demise of NGOnut and NutritionNet (earlier initiatives) could be traced to a combination of institutional and technical challenges, rather than failures of demand. Arguably, the need for such a mechanism has probably increased over time, with more and more non-governmental organisations and civil based organisations working in the emergency sector and the increasing complexity of emergencies and response. While headquarters (HQ) personnel endeavour to provide such support, there may be a variety of reasons why ability to provide 'technical back-stopping' within agencies is compromised, e.g. there is a limit to the technical know-how that agencies may have available in-house. Consequently, many international and national field staff, working in isolated environments (both geographically and technically), are faced with critical technical decisions for which they need immediate support. Furthermore, as technical knowledge in the sector is continuously developing and evolving, it is vital that the most up to date information and guidance (much of which will not be in the literature or most recent guidelines) is made available to field and HQ staff as rapidly as possible.

The interactive forum will be hosted on the ENN website, coordinated by ENN and moderated by a number of technical experts in specific subject areas, identified through the ENN's contacts and network. The site will also be linked to other related interactive fora, e.g. International Task Force on Malnutrition (ITFM)¹, to encourage interaction between different users on cross-cutting issues/themes.

It is envisaged that the forum will be modelled on the previous email-based support, 'NGOnut', coupled with the visibility of a simple online platform to display questions and answers, host comments and discussion and invite feedback. The overriding aim will be timely responses to 'urgent' field questions to inform programming.

The forum will be established over the next three months, with a view to launching at the beginning of 2009.

For more information, watch for new postings on the ENN website or email: marie@ennonline.net

¹ An online forum in development by the IMTF to provide support to organisations and individuals at different levels, to support implementation of the guidelines on acute malnutrition (both inpatient and community-based).

ENN secures funding for SFP Research Projects

The ENN has just received a grant from USAID's Office of U.S. Foreign Disaster Assistance (OFDA) to carry out two projects related to emergency supplementary feeding programmes (SFPs). Both projects emanate from specific recommendations made following the review of 82 emergency SFP data sets conducted by Save the Children UK (SC UK) and ENN in 2006¹, which were to:

- define and implement minimum reporting standards on SFP, and
- increase understanding of the role of default and access in programme performance.

Minimum Reporting Project

The Minimum Reporting Project will develop and implement a standardised Minimum Reporting Package on SFPs. It is hoped that this will help:

- provide a reliable way of monitoring and evaluating the performance of SFPs using approved and standard definitions.
- help identify problems and where programmes need to be adapted.
- facilitate supervision of programmes for managers, officials at agency and country level and donors.
- provide a resource for evaluating the impact on efficacy of a change in protocol, or other change in the intervention context (e.g. a new influx of refugees, a change in season, etc.).
- the implementation of a common set of accepted reporting standards, that will be key to enhancing accountability of programming to both donors and beneficiary populations.

The Minimum Reporting Package will involve development of three main tools:

- A set of guidelines and data collection templates
- Supporting manuals and training materials
- A database application for data entry, analysis and reporting based on the guidelines, and employing user-friendly software developed for this purpose.

An inter-agency central data repository will be created, where nutrition programme data can be stored and accessed, to enable programme comparison, strengthening of institutional memory, lessons learning and to inform research. The central repository will have a dedicated person to receive, clean and provide data that is readily accessible. It will produce regular programme performance reports and ad hoc analysis on demand from participating agencies.

Stages of implementation

Draft minimum reporting guidelines have already been prepared and presented at the ENN/SC UK workshop in May 2008. A small number of modifications have been made based on comments received at the workshop. A critical mass of organisations has

endorsed the Minimum Reporting Package and is willing to implement it in their respective field operations (World Vision, Save the Children UK, NICS, FANTA, IRC, WFP, Nutrition Cluster, UNHCR, Concern Worldwide and Valid International). Subsequent stages are as follows:

- Development of final guidelines and report templates among agencies endorsing the Minimum Reporting Package
- Translation into a software tool by I.T. experts
- Field piloting of the reporting package and guidelines
- Developing final version of guidelines and software tool
- Training and dissemination of the package
- Rollout to other agencies
- Formalising agreements between endorsing agencies and the ENN on data ownership and sharing.

Defaulter and Access Study

The Defaulter and Access Study aims to improve the design of programmes addressed to reducing moderate and severe acute malnutrition, by adapting them to the constraints faced by potential beneficiaries in a variety of emergency settings.

The objectives of the study are:

- To describe the baseline and nutritional characteristics of beneficiaries likely to default from nutrition programmes.
- To understand the determinants of defaulting from nutrition programmes in variety of emergency settings.
- To compare the determinants of defaulting between different emergency settings.
- To translate observations into strategy and policy recommendations to adapt nutrition programming in emergencies.
- To develop field tools to understand defaulting in particular settings and respond with appropriate programme adaptations.

The subjects of this study are children between 6 to 59 months admitted to SFPs. This study intends to capture:

- Frequency and baseline characteristics of patients who default (socio-demographic, nutrition status, evolution under treatment).
- Unexpected events that trigger defaulting through change in family priorities (i.e. determinants that can only be collected post-hoc – once the event has happened).
- Reasons for non-attendance of malnourished children to SFP (i.e. malnourished children who never enrol in an SFP).

The causes of defaulting from SFPs are considered to be context-specific and due to seasonal factors.

Therefore several independent studies will be implemented, to allow description of the causes of defaulting in specific contexts.

Four sites will be selected, each study taking place over a complete agricultural season. Settings to be included are a refugee camp, a long term intervention (protracted emergency) in a secure setting, a recent crisis in a volatile setting with insecurity, and a centre where displaced and resident populations attend. Selection of sites will aim to include programmes from Africa and Asia, as well as a mixture of programmes with high and low defaulting rates.

Stages of implementation

The study will involve a number of stages. The preliminary phase will include developing hypotheses of the main causes of defaulting and non-attendance in different contexts and questionnaires based on these hypotheses for data collection in the quantitative phase of the study. This will be followed by qualitative data collection in two pilot settings and development of questionnaires to identify potential causes of defaulting and non-attendance and inform questionnaire design. Two questionnaires will be developed based on this information:

- The Baseline Questionnaire, for obtaining baseline information on the family.
- The Unexpected Events Questionnaire, a (shorter) questionnaire to identify unexpected events that may be related to defaulting.

The next stage will be the prospective data collection phase in each study site and subsequent analysis. The study will involve case control of those children who do not default, as well as follow up of those who do not attend the programme.

The analysis will first be undertaken for each independent study site. This will involve analysis of different categories of defaulting groups as follows: early defaulting (first two weeks), defaulting after weight gain, and defaulting after weight loss or no-weight gain. Secondary analysis will involve non-statistical comparisons of the results obtained in each study site, with the aim of identifying context specific results and those which are common to all programmes.

Additional analysis will be conducted in countries where a change in programme characteristics (protocols, strategy or external events) may have affected the likelihood of defaulting or its causes. This will be carried out as a 'before-after' comparison of time series data, with defaulting as the event of interest. This will be treated as opportunistic research.

For further details, contact Jeremy Shoham, email: jshoham@easynet.co.uk.

¹ Field Exchange Issue 31.

Reprint of 'Protein-energy malnutrition' by J.C. Waterlow

First published in 1992, but unobtainable for some years, 'Protein-energy malnutrition' has been reprinted, supplemented by 22 pages of updated new material including growth references, exclusive breastfeeding, HIV/AIDS, and malnutrition and mental development. Detailed discussion of treatment is supported by an analysis of the nature of severe and fatal cases. An account of how the existence of malnutrition is characterised in the community by impaired growth, frequent infections and retardation of mental development leads to an analysis of strategy and methods for prevention. Originally targeted at doctors and health workers in developing countries, the revision expands the potential readership to include public health officials, aid agencies and medical advisors.



The book is available from book stores or direct from the publishers at a cost of £35 GBP (including postage): Smith-Gordon, Media House, Burrell Road, St Ives, Huntingdon, Cambs PE27 3LE, UK. Tel: +44 (0)845 6444186 Fax: +44(0)1480 466053 Email: cvenditti@smith-gordon-publishing.com

For students and health professionals in the field, it is available for a reduced price of £10 GBP (including postage) from the publishers or from TALC, PO Box 49, St Albans, Herts, AL1 5TX, UK. Tel: +44 (0)1727 853869 Fax: +44(0)1727 846852 Email: info@talcul.org Website (can be ordered online): www.talcul.org

A woman cooking at home in Tanzania



Heather Kindness, Tanzania, 2007

'Cost of the Diet' – novel approach to estimate affordability of a nutritious diet

By Abigail Perry, Save the Children UK

Abigail Perry currently works for Save the Children UK as a nutrition adviser based in London, providing technical support for Asia and Africa programmes. Previously she has worked on a range of nutrition programmes and research projects in Darfur, South Sudan, Pakistan, Zambia and the UK.

The author would like to acknowledge the invaluable contributions from Andre Briend, who provided extensive advice and support, and Remy Stevens who gave a significant amount of his time pro bono to develop the programme software. The Cost of the Diet project would not have been possible without Arabella Duffield, Claire Chastre, Heather Kindness, Sonya LeJeune, Anna Taylor and the Save the Children teams in Bangladesh, Tanzania, Ethiopia and Myanmar.



A child eating at home

This article provides an overview of a novel method developed by Save the Children UK to calculate the cost of an ideal diet, with results from two case studies and a discussion of the limitations to the approach and intended next steps for its development.

Save the Children UK (SC UK) has developed a method known as the 'Cost of the Diet' (CoD) that can calculate the minimum amount of money a family has to spend to meet their macro- and micronutrient requirements using locally available foods. This approach came out of SC UK research, which showed that nutrition education programmes that aim to improve complementary feeding practices in children have had a limited impact because of the economic constraints facing many households in developing countries¹. The initial objective for developing this method was to better illustrate the extent of the gap between household income and expenditure, in order to advocate for more appropriate programmes and strategies to reduce child under-nutrition.

Defining the role of cash transfers

Over the last several years, there have been a number of large-scale cash transfer programmes in both Latin America and Africa that have shown positive impacts on feeding practices and nutritional status of children. The donor community has also expressed an interest in wider use of social protection, particularly as a way to achieve Millennium Development Goal (MDG) 1². The recent Lancet series on Maternal and Child Undernutrition emphasised that improvement of complementary feeding among food-insecure populations is best achieved by combining nutrition counselling, food supplements and cash transfers as part of a social protection package³.

However, there is a distinct lack of tools to help decide what components should go into a social protection package and how large a cash transfer would need to be, to achieve specific nutritional objectives. To make informed decisions when designing a nutrition-focused social protection package, we need to know what foods are available and how much it would actually cost to buy the foods a family needs to meet requirements. The CoD method was developed to do exactly this. As far as SC UK is aware, this is the first tool that can:

- Calculate the minimum cost of a diet for an individual child and the whole family.
- Take into account seasonal variations in price and availability.
- Provide region-specific data on cost and availability.

¹ Duffield, A. et al. 2003. Thin on the Ground. Save the Children UK.

² MDG 1: Eradicate extreme poverty and hunger.

³ Bhutta, Z.A. et al. 2008. What works? Interventions for maternal and child undernutrition and survival. *Lancet*, 371(9610):417-40. See summary of Lancet series in Field Exchange 33.

⁴ Requirements for micronutrients to be met include calcium, zinc, magnesium, iron, vitamin A, vitamins B1, B2, B6, B12, niacin, pantothenic acid, folic acid, and vitamin C.

⁵ WHO 1998. Complementary Feeding of Young Children: A Review of Current Scientific Knowledge. WHO, Geneva.

⁶ One child aged 12-23 months, 1 child aged 3-4 years, 1 child aged 7-8 years, 1 male aged 30-59 years (50kg, vigorously active), 1 female aged 30-59 years (45kg, vigorously active, lactating).

A number of CoD assessments have been carried out so far and results from two of the pilot studies in Bangladesh and Tanzania are presented here.

The 'Cost of the Diet' programme

The main component of the CoD is a computer programme designed by SC UK that uses linear programming (LP) to calculate lowest cost nutritionally-appropriate diets. The principle of LP is that one can solve a problem (in this case the minimum cost of a diet) whilst fulfilling a range of constraints (e.g. nutrient requirements). The programme builds on work done by the World Health Organisation (WHO), which used LP to put together diets to meet nutritional requirements of children under 2 years of age (<http://www.nutrisurvey.de/lp/lp.htm>).

The lowest-cost diet is calculated using locally available foods according to the following constraints:

- It must meet (but not exceed) energy requirements of each individual family member.
- It must meet protein, fat and micronutrient requirements for each individual family member⁴.
- It must not include more than the predetermined allowance for particular food groups.
- For children aged 6-23 months, it must include a fixed amount of breastmilk.

Energy, macro- and micronutrient requirements for individuals are based on WHO recommendations and the nutritional composition of foods is derived from a Food and Agricultural Organisation (FAO) database built into the programme. Maximum allowances for particular food groups were agreed through consultation with experts at University College London, WHO and the University of California, Davis (Table 1). These thresholds have been incorporated to help ensure that the diets are relatively realistic. However, they are not internationally agreed and further work is needed to see whether they can be standardised across countries. The volume of breastmilk that has to be included in the diet for children aged 6-23 months is based on average intakes and is age specific (6-8 months, 674ml; 9-11 months, 616ml; 12-23 months, 549ml)⁵.

Although the size and composition of a family should be based on what is typical for the region of interest, in this case a standard household was used⁶.

Table 1: Maximum percentages of energy requirement for food groups

Food group	Maximum percentage of energy requirement that can come from this group
Staples	100
Dairy	100
Fats	30
Fish	20
Fruit	8
Leafy vegetables	5
Pulses	50
Meat	20
Eggs	20

Table 2: Country seasons

Country	Season 1	Season 2	Season 3	Season 4
Bangladesh ^a	Winter	Summer	Rainy	Lean
	Mid-November to mid-March	Mid-March to mid-June	Mid-June to mid-September	Mid-September to mid-November
Tanzania ^b	Pre-harvest (high price)	Post-harvest (low price)	–	–
	December to April	May to November	–	–

Data collection done between:
^aSeptember and December 2006 (covering the period from April 2005 to March 2006)
^bMarch 2006 and July/August 2006 (covering the period from December 2005 to November 2006).

Pilot studies

Location

In both Bangladesh and Tanzania, CoD studies were implemented in regions that correspond to livelihood zones identified during Household Economy Approach (HEA) assessments⁷. Livelihood zones identified using HEA tend to have reasonable commonalities in terms of sources of food, income, expenditure patterns and access to markets.

Data collection

The number and duration of the seasons in both locations were determined from HEA assessments and discussions with key informants from the community (Table 2). For each season, a comprehensive list of the foods available was compiled together with cost per unit sold. This was done through interviews with community members and local traders. Foods were weighed using Tanita electronic scales. Data were consolidated periodically throughout the process to ensure that information gaps and inconsistencies were identified and filled.

Data entry and analysis

For each location and season, the foods available and price per 100g were entered into the programme. When entering the data, teams were requested to select the equivalent food from the country nearest to the study location from the foods database. The programme was then run to calculate the lowest cost diet that would meet the requirements of the standard household using the foods available. The programme calculates how much it costs to meet daily requirements in a particular season. The average daily cost was calculated as follows:

$$\text{Average daily cost of the diet} = \frac{\sum(D_i \times C_i)}{365}$$

where i = season, 1, 2...n,
 D = number of days,
 C = daily cost of the diet.

For both examples, only the cost of a 'physiological' diet has been calculated; these are diets that meet requirements but that may not be culturally or environmentally feasible. The implications of this are discussed below.

Limitations of the method

Estimating cost

The variability in the cost of the diet depended on the foods selected from the composition database, size/structure of the household and

this way with various adjustments. Costs ranged from 15% less to 25% more than the calculated average daily cost of the diet. This has been used to calculate the error ranges presented in the results.

Estimating affordability

To determine the affordability of a nutritionally adequate diet, costs calculated by the programme were compared with household income data from each study location. For Bangladesh, this was obtained from a survey of all households in a village in the livelihood zone⁸. Income data for Tanzania were taken from HEAs done in 2002/03 and 2004/05^{9,10}.

In both cases, income data were derived from a different time period to the food price data and hence income levels were adjusted according to inflation. For Bangladesh, 2004

the energy requirement limits applied to the food groups. In order to estimate the potential impact of these limitations on the results, the data were re-analysed for the low price season in Tanzania with a number of adjustments, e.g. different household profile, different activity levels, different maximum energy from leafy vegetable sources. Seven diets were costed in

Table 3: Composition of diets for Bangladesh (A) and Tanzania (B)

Bangladesh (A)	Total household of 5 people				Child aged 12 to 23 months			
	Winter (g)	Lean (g)	Summer (g)	Rainy (g)	Winter (g)	Lean (g)	Summer (g)	Rainy (g)
Cereals								
White rice	757	1,450	1,300	1,278	0	72	39	94
Wheat flour	0	0	346	0	0	0	90	0
Taro	4,122	0	0	0	405	0	0	0
Taro-like tuber	0	0	0	1,005	0	0	0	0
Pulses/legumes								
Peanut	0	14	0	0	0	14	0	0
Cowpea	109	885	0	81	109	139	0	81
Meat/fish and animal products								
Fresh water fish	0	296	0	287	0	0	0	0
Duck egg	137	0	0	0	0	0	0	0
Buffalo milk	0	0	1,717	0	0	0	0	0
Cow's milk	130	257	0	310	0	0	0	0
Vegetables								
Bottle gourd	0	0	0	48	0	0	0	48
Jute leaf	1,308	0	0	642	80	0	0	0
Spinach	0	0	1,268	1,401	0	0	0	195
Red amaranth	0	1,321	713	0	0	92	101	0
White radish (roots, leaves)	89	0	0	0	89	0	0	0
Other								
Cane sugar molasses	24	0	0	0	0	0	0	0
Palm oil	0	271	0	0	0	0	0	0
Soybean oil	316	0	178	279	7	0	6	7
Cinnamon	0	15	0	0	0	0	0	0
Breastmilk	549	549	549	549	549	549	549	549

Tanzania (B)	Total household of 5 people		Child aged 12 to 23 months	
	Low price season (g)	High price season (g)	Low price season (g)	High price season (g)
Cereals				
Sorghum, couscous	1,774	1,673	101	0
Cassava flour	0	52	0	52
Pulses/legumes				
Cowpea	0	0	0	0
Peanut	70	628	0	0
Pigeon pea	0	81	0	81
Meat/fish and animal products				
Dried anchovy	66	66	0	0
Vegetables				
Cassava leaf	1,350	121	121	121
Cowpea leaf	0	1,229	0	0
Other				
Grated coconut	411	451	0	40
Sesame seed	358	0	28	0
Breast milk	549	549	549	549

⁷ FEG Consulting and Save the Children UK 2008. The Household Economy Approach: a guide for programme planners and policy-makers. Save the Children UK.

⁸ Seaman, J. et al. 2005. A Study of the Relationship between Household Economy and Nutritional Status in a Village in Kurigram, Bangladesh. Save the Children UK, unpublished report.

⁹ Save the Children 2003. Livelihoods of Lindi Rural District: A Household Economy Assessment in Southern Tanzania. Save the Children UK, unpublished report.

¹⁰ Save the Children 2007. Tackling Extreme Poverty: The Role of Cash Transfers and Complementary Social Protection Measures. Save the Children Tanzania.

income data were adjusted to 2006 prices using published inflation rates from the Central Bank of Bangladesh. Official Government inflation rates for Tanzania were used to adjust the total income estimates to 2006 prices. Diet costs were converted from local currency into US dollars (USD) using historical exchange rates (obtained from <http://www.oanda.com>).

The error range for the HEA income estimates in Tanzania were calculated at 5%. Ranges were not estimated for Bangladesh because individual households were assessed. In the case where the typical household size in a particular wealth group was not 5, income was adjusted to an equivalent 5-person household.

Results

Range of food items available

The number of foods available varied considerably between the two countries, and to a small extent between seasons. In Bangladesh, a minimum of 60 food items were available in the summer season and a maximum of 65 during the winter season. During both seasons in Tanzania, a total of 33 foods were available. The variation by season in Bangladesh was largely related to availability of fruits and vegetables.

Composition of diets

The diets formulated by the programme to meet nutritional requirements of a total household of 5 people, as well as the child aged 12-23 months, are shown in Table 3. The most immediate observation is that these diets include unrealistic quantities of some foods. Although spinach and amaranth are clearly cheap sources of nutrients in Bangladesh, it is unlikely that a household would consume 1-1.5kg of these foods on a daily basis. Similarly, it would be surprising if families were able to procure and consume nearly 2 litres of buffalo milk each day. In Tanzania, there are unrealistic quantities of sesame seeds in the diet (which contribute half the household's requirements for zinc, magnesium and calcium, and a significant proportion of fat). The large quantities of leafy vegetables were included in these diets because they were freely available and hence did not affect cost.

Cost of the diet and seasonal variations

The average daily cost of the diets calculated by the programme is shown in Table 4. As expected, the daily cost of the diet varied in both settings according to the season. In Bangladesh, the maximum daily cost was during the lean season (71 Taka) and the minimum was during the winter season (53 Taka). The cost of the diet in the high price season in Tanzania was 1107 Shillings and in the low price season was 708 Shillings.

Affordability

To estimate affordability we compared annual diet cost with annual income. The annual cost of the diet for a 5 person household in Bangladesh is 22,118 Taka (18,800 – 27,647), which at the time of the assessment was equivalent to 332.5 US dollars per year (282.7 – 415.7). Among the 194 household surveyed, the annual income ranged from less than 1000 to approximately 170,000 Taka. A total of 163 (84%) of these households had an annual income less than the annual cost of the diet; 153 (78.9%) had an income less than the lower limit



of this estimate and 173 (89.2%) an income less than the upper limit of this estimate.

The annual cost of a diet for Tanzania was 318,637 Shillings (270,841–398,296), the equivalent of 263.9 US dollars (224.35–329.92). The average income by wealth group according to the HEA is given in Table 5. It is estimated that over half of the very poor and extremely poor (roughly 25%) have an income that is equal to or less than the annual cost of the diet. None of this wealth group and just over half of the 'poor' (roughly 55% in total) are likely to have an income that exceeds the upper range of the annual cost of the diet.

Although a nutritious diet is crucial for good health and development, families clearly need more than this, and it is necessary to take into account the cost of non-food items when interpreting affordability. Research conducted in Tanzania at the same time as this work estimated the annual cost for items such as fuel, medical costs, clothes, school fees and festival costs to be 56,860 Shillings, resulting in an annual food/non-food essential expenditure of just over 375,000 Shillings. This amount would be unaffordable for roughly 55-60% of households in the region.

Comparison with daily labour rate

In both Bangladesh and Tanzania, the poorest households tend to own little or no land and hence are dependent on paid labour. At the time of the assessments, the average labour rate in Bangladesh was between 50 and 60 Taka/day. As shown in Table 4, this is less than the estimated daily cost of a diet, particularly during the lean season. In Tanzania, the labour rate was typically 750 Shillings/day, which is also less than the average daily cost for a nutritionally appropriate diet.

Discussion

The results of the analyses presented here plainly illustrate that the amount of money required to meet nutritional requirements exceeds the income of the poorest households. In Bangladesh and Tanzania, the poorest make up a significant proportion of the population and in both settings, these households are heavily reliant on purchasing food and on seasonal labour. Our research in Tanzania and Bangladesh has shown that diversity of the diets given to children under 2 years is significantly associated with wealth. Clearly, promotion of appropriate dietary practices for young children will have limited impact in these settings because the most vulnerable families will find it difficult to purchase the necessary foods.

The prevalence of chronic malnutrition among young children living in rural areas of Bangladesh and Tanzania is classified as very high, with some regions reporting >40% stunting. These high levels are not only due to inadequate food, but also the monotonous and nutritionally poor diets that result from limited access to an appropriate range of foods. In Bangladesh in particular, the cost of the diet corresponds to the seasonal fluctuations in acute malnutrition, with the peak in rates seen during the lean season when foods are most expensive. Again, the cost of the diet is not the only contributing factor but it certainly plays a key role.

This CoD work is even more relevant given recent concerns about rising food prices. According to the World Bank, global commodity prices rose by 83% over the last 3 years¹¹. It is difficult to determine the extent to which local food prices have been affected by these global trends. However it is widely felt that the impact will be significant, resulting in an even wider gap between income and the cost of the diet, particularly among the urban poor and the landless rural poor.

Table 4: Average daily cost of the diet by country

Country	Average daily cost (min/max over the year)		
	Total household of 5 people	Child aged 12–23 months	(% of total household cost)
Bangladesh (Taka)	61 (52 – 76)	4 (3 – 5)	(6.6%)
(US dollars)	0.91 (0.77 – 1.14)	0.06 (0.05 – 0.07)	
Tanzania (Shilling)	873 (742 – 1092)	35 (30 – 44)	(4.0%)
(US dollars)	0.72 (0.61 – 0.90)	0.03 (0.02 – 0.04)	

Table 5: Average income by wealth group for Tanzania

Wealth group	Percentage of households	Annual food and cash income for a 5 person household (Shillings)
Better off	8%	1,657,000 (1,574,150 – 1,739,850)
Middle	23%	951,000 (903,450 – 998,550)
Poor	35%	360,000 (342,000 – 378,000)
Extremely and very poor	35%	297,000 (282,150 – 311,850)

¹¹ World Bank 2008. Rising food prices: policy options and World Bank response, p.1 http://siteresources.worldbank.org/NEWS/Resources/risingfoodprices_backgroundnote_apr08.pdf

Failure to respond to treatment in supplementary feeding programmes

By Prof Mike Golden and Yvonne Grellety

As highlighted in the recent large-scale retrospective review of emergency supplementary feeding programmes conducted by the ENN and SC UK, a significant number of children in these programmes fail to respond to treatment. Professor Mike Golden and Yvonne Grellety have developed an algorithm for the management of such cases. This approach has already been inserted into a number of national protocols (Ed).

A child with moderate malnutrition under treatment in a supplementary feeding programme (SFP) who is not responding as expected should not be allowed to remain in the standard programme, being given supplementary food month after month, until the child is eventually discharged as a “non-responder”. This is unacceptable. Children who do not respond should be identified, investigated according to this protocol, and individual discharge determined by clinical or more specialist staff than normally operate a SFP.

Typical criteria for failure to respond to treatment are:

- Failure to reach discharge criteria after 4 months in the programme
- No weight gain after 6 weeks in the programme
- Weight loss over 4 weeks in the programme
- Weight loss exceeding 5% of body weight at any time.

The reasons for failure to respond can be classified as:

- 1) Problems with the application of the protocol
- 2) Nutritional deficiencies that are not being corrected by the diet supplied in the SFP
- 3) Home/social circumstances of the patient
- 4) An underlying physical condition/illness
- 5) Other causes

To address failure to respond, the following step-by-step procedure should be followed (outlined in Figure 1). Each step should be taken one at a time in the sequence shown and not omitting any step (see table 1).

1) Protocol problems

Where a substantial proportion of children fail to respond to treatment, the proper application of the protocol and the training of the staff at field level should be systematically reviewed - if necessary by an external evaluation. Any shortcomings should be rectified.

2) Uncorrected nutritional deficiencies

The diets normally used for supplementary

The findings from Tanzania clearly showed that these items make a significant difference to affordability. Further work is needed to develop this aspect of the method so that we can ensure that our estimates of the proportion of households with a gap between income and expenditure are more accurate and hence more useful when designing interventions.

In a similar vein, it is difficult to estimate the affordability of diets because of the type of income data used. First, HEA data do not translate easily into a format that can be used to accurately estimate what percentage of households can or cannot afford a nutritious diet without making potentially incorrect assumption about the distribution of income within the population. This is not a problem when using IHEA (International Health Economics Association) data because income estimates are obtained from individual households. Hence, we are able to plot the distribution of income in the population and so to better estimate the percentage of households that can or cannot afford the diet. Second, the data used came from HEAs implemented several years earlier and the country-specific inflation rates that were applied to adjust these to the time of the CoD may not be particularly representative of what actually happened to income levels. We would like to do more work to track changes in income, alongside changes in costs of foods and non-food items to better understand the relationship between inflation rates and changes in local incomes. Further thought is also needed as to how best to estimate affordability using the income data collected during HEA assessments.

Conclusions

Despite the current limitations, the CoD has the potential to be an extremely valuable tool. The burgeoning work on cash transfers as a means to reduce under-nutrition has prompted a need to better understand the cost and affordability of diets that ensure good nutritional status of children and families. The CoD is the only tool available that can be used to thoroughly and systematically assess this. Once the programme is set up to design more realistic diets, it will also be possible to identify likely requirements for micronutrient supplements and fortified products and to examine the cost impact of providing these types of interventions. Of particular relevance is the scope for using the CoD to monitor and predict the impact of food price rises on the poorest households. SC UK is currently pursuing this line of research.

For further information, including a full copy of the report, contact: Abigail Perry, email: A.Perry@savethechildren.org.uk

Call for input

Although SC UK has a range of options for developing the method further, we are particularly keen to receive input from people working in this sector about how they might want to use the CoD. Our goal is to make this tool freely available in a format that serves the needs of a range of organisations. If you have any ideas or suggestions about uses for the method, or if you would be interested in testing it in the field, contact Abigail Perry, Nutrition Adviser at Save the Children UK, email: A.Perry@savethechildren.org.uk



A woman cooking at home

It is important to note when interpreting the results presented here, that there are a number of limitations to the method. The first relates to the calculation of cost. As mentioned, the diets designed for the two case studies are not entirely realistic but it is not clear to what extent developing more realistic diets will affect cost. We are confident that the results presented are conservative estimates. To create more realistic diets we will need to add additional constraints. These could either increase or maintain cost, but given the principles of LP, they should not lead to a decrease. We are currently undertaking further research to develop appropriate additional constraints that will help in the design of more realistic diets. This is being done in part by investigating how the diets calculated by the programme compare with real dietary practices, but also by looking at dietary recommendations for young children, pregnant/lactating women and other adults.

One component of the diets that we have not been able to factor in properly is the role of wild foods. Wild foods do form a significant proportion of the diet for population groups in some countries and it is feasible that families could be boosting nutritional intake at no extra cost. Some free foods were included in the analyses and in fact, removing the free green leafy vegetables from the foods available in Tanzania results in a 13% to 32% increase in the cost of the diet. SC UK plan to investigate the role of wild foods in the diets of rural communities but will most likely not systematically include wild foods in CoD analyses because: (i) it is very hard to accurately identify wild plant species and virtually impossible to match these with the limited composition data available for wild foods, (ii) promotion of wild foods as a significant part of diets has implications for sustainability, and (iii) not all families have access or the capacity to collect large quantities of wild foods and hence cost estimates could be misleading. We will, however, continue to include foods that are widely available at no cost but will apply limits to ensure that excessive amounts of these foods are not included in the diets calculated by the programme.

Another major limitation of the method relates to the estimation of affordability. Even if we are sure that the diet costs are realistic, we do not yet have a systematic way to add on the cost of essential non-food items and services.

feeding of moderately malnourished children are not designed to promote rapid catch-up weight gain, even if taken exclusively; the nutrient density does not compensate for the very low levels of some essential nutrients in the remainder of the diet. The diets often have low concentrations of several essential nutrients, the availability of these nutrients is often low and there are high concentrations of anti-nutrients. Furthermore, some products, such as UNIMIX and Corn Soya Blend (CSB) contain very high concentrations of iron that destroy other essential nutrients, such as vitamin C, during food preparation. Experience shows that about 25% of children lose weight or fail to grow, or that carers abandon SFPs because they see that their children are not recovering.

An uncorrected nutritional deficiency can be investigated by changing the diet given in the SFP to one of higher quality. These diets are not given routinely as they are more expensive and less available than the standard diets. The possibilities are to give a diet with the specifications of a Ready to Use Therapeutic Food (RUTF) designed for the severely malnourished to promote rapid weight gain or, if not available, to give another higher quality diet (e.g. SP450). The quantity that needs to be given to achieve a response in this particularly group of children has not been investigated. Some agencies have given 200g of RUTF per day and reported a good response.

3) Social problems

There are often problems with intra-family distribution, sibling rivalry and very occasionally, rejection of a child (e.g. paternity problems), parental psychopathology (e.g. depression, post-violation, schizophrenia, etc), parental illness (e.g. HIV/AIDS), or use of the child's state to access food and services for the whole family. Child headed families/communities, abject poverty and social rejection by the community are other causes that may be found.

To address this, if possible, a home visit is made to evaluate the home circumstances. However, most of these causes may not be clear even with a home visit. If the cause is not determined or a home visit is difficult to arrange within a reasonable time, then the child is admitted (day care) and fed under careful supervision for about 3 days. If the child gains weight well with directly observed feeding, yet fails to gain weight at home, then there is a major social problem. This is then investigated with an in-depth interview with the parents who have seen the child gain under supervised feeding and possibly a further home visit.

4) Underlying medical conditions

If the child does not respond to supervised feeding, then there is probably an underlying medical problem. A careful history and examination should be performed by a clinician and a search made for the common underlying conditions; in particular, TB, HIV, Leishmaniasis, schistosomiasis, other infections commonly found in the geographic area. Almost any condition in the paediatric textbook can present with malnutrition - cirrhosis, inborn errors of metabolism, chromosomal abnormalities, etc.

5) Other conditions

If an underlying condition is not found, then the child should be referred to a paediatric facility with special expertise and diagnostic facilities. This facility may be able to exclude cirrhosis, neurological disease, malabsorption syndromes, inborn errors of metabolism, chromosomal abnormality, developmental syndromes, etc. The main reason why a malnourished child should be referred to a specialist facility is for diagnosis of underlying conditions in children that do not respond to treatment. There will be a residue of children with untreatable underlying conditions. The further management of all the children with underlying conditions should be determined by the clinical facility and not the staff of the SFP.

For more information, contact Mike Golden, email: mike@pollgorm.net

Figure 1: A step by step approach to manage failure to respond to treatment

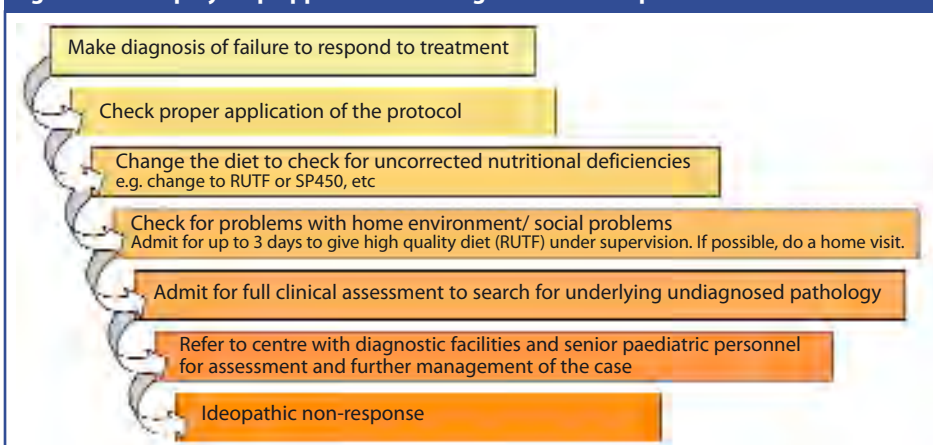


Table 1: Implementation of step-by-step approach

Steps	Actions	Considerations
Diagnosis of failure to respond to treatment		
Step 1	Improve nutritional intake	
	Give RUTF, 1000kcal per day for 15 days (2 sachets per day)	This is a diagnostic test! It is not treatment per se. We are giving a diet which we know will correct all known nutritional deficiencies and seeing if the child now responds. The test MUST involve the best diet available for recovery of a malnourished child.
Step 2	Review	
	After 15 days (next visit), if he/she has now responded to treatment, this means that it was a nutritional problem (type 2)	Continue the treatment with 2 sachets of RUTF plus the SFP ration for a further month. It is unclear whether 2 sachets per day is the correct amount. This is an area for operational research – should the amount be adjusted according to the weight of the child? Would one sachet per day be enough? It is best to start with what we think will definitely work. Small studies should be conducted with limited numbers of children to test step-by-step reduced amounts and see how well these work.
	After 15 days (next visit), if he/she does not respond to treatment, this means that the dominant problem is NOT A NUTRITIONAL deficiency and that social or medical problems must be investigated. The next most likely reason is a social problem.	Progress to Step 3
Step 3	Investigate the home social circumstances; the home visit may pick up some social problems	
	A problem is identified during the home visit that <i>can</i> be alleviated or solved.	Deal with the problem, leave the child at home for follow up and further visits can be made in the following weeks.
	A problem is identified during a home visit that <i>cannot</i> be alleviated or solved at home.	Take any steps necessary to alleviate the problem – such as admission of the child to a facility, putting more resources into the home, arranging for a different carer (relative), getting treatment for the carer (eg psychiatric/HIV, etc).
	During the home visit, if no problem is identified to account for the failure to respond to treatment, it is still likely that there is a social problem that has not been identified.	Admit the child for a trial of feeding under supervision in a TFC for 3 days.
Step 4	Investigation of underlying pathology	
	If still the child is not responding to treatment, then he needs to be sent to a facility (hospital) where there are clinicians/paediatricians that are skilled in diagnostics and have the facilities to investigate the child.	
	If this facility does not find the cause, then the child should be referred to a national centre/ University for full investigation of unusual causes.	
	If the final referral centre does not find any cause for the failure of the child then there is no other choice but to label the child as idiopathic failure-to-respond. The cause of the malnutrition has not been found. Such children should perhaps be entered into a register, have specimens stored and be seen whenever there is a senior paediatrician with skill in severe malnutrition and in diagnostics visiting the country.	

A Time to Rethink the Global Food Regime

Summary of published paper¹



By Tom Marchione,
George Mason
University

Until his recent death, Tom Marchione was an adjunct professor in the George Mason University Department of Global and Community Health. He served as an evaluation officer and food security and nutrition advisor to the Bureau for Humanitarian Response at USAID until 2006. He was also editor of 'Scaling Up, Scaling Down: Overcoming Malnutrition in Developing Countries (1999)'.

Since the food crisis years of the 1970s, premier development agencies have promoted comparative advantage, export-driven economic growth, market liberalisation and biotechnology as the keys to preventing another food crisis in developing countries. Economic development experts have looked askance at any policy proposing to strengthen national food self-sufficiency in a developing country. Under the rubric of the Washington Consensus, the tools of structural adjustment and conditional lending prevailed as UK and US leaders embraced Fredrik Hayek and Milton Friedman's neoliberal economics. Lost was the notion that food deserves a privileged place among marketed commodities because it is life-giving, that food and agriculture systems represent successful biocultural human adaptations to unique local environments, or that food systems are a part of context-specific social processes. In *Hunger and Public Action*, even Nobel Laureate, Amartya Sen, dismissed the notion that a country's nutritional condition had anything but an accidental connection to a country's degree of food self-sufficiency².

Peddling the Medicine

These prescriptions were, however, for export only. While subsidised fertiliser, credit and agricultural extension programmes were being dismantled in Sub-Saharan Africa in the 1980s, Europe, North America and some market savvy, unheeding Asian countries successfully resisted attempts to radically liberalise their food sectors and dismantle inward-looking food security policies. As productivity languished in the least developed, food insecure countries, their markets were penetrated by foods from productive, subsidised food exporters. The US Department of Agriculture's food security analysis of 50 least developed countries (32 being in Africa) found that from 1980 to 2005, import dependence sharply increased for sugars, vegetable oils and grain, especially wheat. Calorie intake stagnated as these imported foods replaced indigenous foods in the diet. Well before fuel and food imports began their meteoric price rise in 2006, these economies were hard pressed to meet their food import bills, given their massive debt and deepening negative agricultural trade balances – unlike the Asian countries that resisted the 1980s food sector liberalisation.

For decades, the World Bank, the US Agency for International Development (USAID) and the International Monetary

Fund (IMF) had offered developing countries trade and foreign direct investment as a substitute for direct agricultural assistance, particularly disregarding assistance for the large majority of farmers, the subsistence and semi-subsistence smallholders who produced local foods for local consumption. The agricultural assistance that survived focused mainly on larger export earning elite producers in the most fertile areas. Fostering food production by the smallest farmers was not only out of fashion with influential donors, it became unpopular among developing governments. As late as 2006, only four of 28 governments in the New Partnership for African Development managed to meet their modest goal of investing 10% of their budgets in the agriculture sector. Comparative advantage experts had argued successfully that food did not have to be produced where it was needed and that countries could produce whatever goods brought in the highest export revenues. Food could be purchased or donated cheaply from the breadbaskets of the world. Thus, the world's food market share concentrated into fewer and fewer hands, while worldwide official development assistance for agriculture halved from 1980 to 2005, dropping to 7% of overall development assistance.

Collapse of the Cheap Food Regime

Two years ago, this cheap food regime was considered a success because of three decades of falling international food prices – only punctuated by the price crisis of the 1970s. According to the IMF, a dollar's worth of food in 1947 in constant dollars could be purchased for about 50 cents in 2005. Until recently, the regime helped ease pressure on low-income food purchasers, especially in restive cities such as Cairo, Dhaka, Abidjan and Port-au-Prince. Amartya Sen was right, but only partially. Food security is not a matter of where food originates, it is a matter of exchange entitlement; but in the less developed world, profitable local food economies provide the basis for this entitlement. Most of the world's poor and undernourished people live in rural areas, depending on farm production and agricultural labour for their incomes. The prevailing food regime, using Deborah Bryceson's term, tended to "depeasantise" rural areas before it offered viable, alternative livelihoods. Under this regime, small farmers in Sub-Saharan Africa and South Asia remained the most impoverished workers in the world. Not surprisingly, from 1975 to 2000 urbanisation accelerated in the cities of less developed countries, where food prices are now soaring. This dislocation was increasing at the same time that emergency food shortages, state failure, civil war and the

phenomenon of the child soldier became widespread. Since 1998, global expenditures for emergencies have exceeded development assistance for agriculture.

In 2006-8, the failure of this food regime has become tragically clear. Commercial food and oil imports threaten to collapse developing economies, and consumer food prices are undermining the nutrition of the urban poor and rural land poor. International targets to halve 830 million hungry by 2015 were already off track before the present crisis, and now appear to be entirely out of reach. Clearly, to treat food as if it were a commodity no different than gold or oil – with no inherent human value, subject to the whims of global traders and commodity fund speculators with only peripheral interest in human needs – is a recipe for food price shock in poor households. The same US interests that have given the developing world subsidised food, such as Archer Daniel Midlands, Cargill and ConAgra, have found another way to profit from food: selling it as feedstock for the fuel business. Yet, even as the US and European biofuel solution for fuel self-sufficiency aggravates world food problems – with 40 countries sinking into food crisis – steps to assert any degree of food self-sufficiency by developing countries are considered unthinkable. One can hardly fault developing countries for losing confidence in the world's breadbasket, as validated by the recent collapse of the Doha trade talks. It is time to rethink the global food regime, but how?

Rethinking the Global Food System

The world's alarmed development establishment responsibly and aggressively seeks to buffer the current acute food insecurity crisis by providing more emergency food aid and social protection programmes. Development agencies, like USAID, the UN World Food Programme, UN Food and Agriculture Organisation (FAO), associated think tanks, and others, propose medium- and long-term approaches to improve agricultural assistance. However, none of their hastily cobbled proposals address the deep global flaws in the world food regime that gave rise to the crisis, no doubt because these same institutions were a party to them. To construct a new food regime we must ask several crucial questions. First, what position should human food occupy in global trade policy by virtue of its unique biocultural relationship to human health, human culture and human rights? More specifically, (1) how can we buffer poor food consumers from international food price volatility, (2) what tariff protections should be

How to improve support to 'frontline' field staff

Hello Marie and Jeremy,

A big kudos to all the team at ENN for creating a great medium to provide and share practical experiences from the field. I always look forward to ENN publications.

At this year's international workshop on integration of Community-based Management of Severe Malnutrition (CMAM) held in Washington DC, Jeremy made a great and eye-opening presentation on information sharing. One of the key questions that caught me was: how to provide instantaneous support to field staff and what would be the best mechanism for providing instant support to those 'on the frontline.'

Well, I acknowledge that ENN is a great and practical synthesis of what is happening in the nutrition world, however over the last few years, I have had big difficulties in sharing these with the staff in the field, MOH, local partners and communities as all articles are in English...

CMAM is being implemented in many francophone countries now and not even once have I seen an article in French in ENN's publications. I have been working in the Democratic Republic of the Congo (DRC) where the field staff are yearning for information. Now, in Haiti, we have difficulties convincing policy makers and stakeholders on integrating CMAM because of very few publications on CMAM in French. And, as you know, seeing is believing!!!!

We see much English publication done from francophone countries but I wonder if it truly reaches the staff in these countries. I am sure funding is a limitation and also recognise that in order to produce a translated version of a whole issue of Field Exchange, it is a lot of work and coordination.

Well, I have one suggestion. Perhaps a step towards this would be to translate key articles that we think are especially relevant to our partners and teams, and to send them to the ENN team.

So are there any volunteers out there who speak French, Spanish, Arabic, Urdu??

I am sure those of us who want to improve our staff capacity and understand the need for this will definitely be up for it?

So, my fellow ENN users, let's mobilise and/or volunteer our language skills and get the nutrition information to those 'on the frontline.' We always count on communities to volunteer their time, so why not us?!!!

Kind regards,
Brenda Akwanyi

Email: bakwanyi@yahoo.com

We welcome any translated articles and will post them on our website. We also hope to identify funding opportunities for translation of Field Exchange (Eds).

Salut Marie et Jeremy,

Félicitations à toute l'équipe d'ENN pour créer un tel forum d'échange sur nos expériences terrain. J'attends toujours avec grand intérêt les publications d'ENN.

Durant la conférence internationale sur l'intégration de la Prise en charge Communautaire de la Malnutrition Aigüe (PCMA) qui s'est tenue à Washington DC en avril dernier, Jeremy avait fait une présentation sur le partage d'informations. Une des questions qui m'avait interpellée était: comment fournir un appui immédiat et concret aux personnels sur le terrain?

Une remarque/suggestion à ce sujet. Je reconnais qu'ENN est un réel forum d'échange sur les diverses pratiques et recherches dans le monde de la nutrition. Toutefois j'ai constaté au cours de ces dernières années, que j'avais eu de grandes difficultés à partager ces informations avec le personnel terrain, dans les ministères de la santé, les organisations communautaires etc, pour la simple raison que les tous les articles sont écrits en en anglais...

La PCMA est mise en place dans de plus en plus de pays francophones et je n'ai pas le souvenir d'avoir vu d'article en français traitant du sujet dans les publications d'ENN. En République Démocratique du Congo (RDC), où j'ai travaillé pendant quelque temps, le personnel sur le terrain réclamait désespérément l'accès à des articles de qualité sur la PCMA. En Haïti, la principale difficulté était de convaincre les responsables des politiques de nutrition et les partenaires travaillant sur l'intégration du PCMA en raison du peu de publications en français !

Beaucoup de publication en anglais sont faites suites à des études et programmes mis en place dans des pays francophones mais je me demande vraiment si celles-ci sont rendus accessibles aux personnels de santé de ces pays. Le financement est sans doute un frein à la traduction complète du Field Exchange, qui exigerait beaucoup de travail et de coordination.

J'ai malgré tout une suggestion. Peut-être que nous pourrions commencer par traduire des articles particulièrement appropriés pour nos partenaires francophones et les envoyer à l'équipe d'ENN.

Y a-t-il aussi des volontaires qui parlent français, Urdu, espagnol, portugais ou arabe ??

Je suis sûre que ceux d'entre nous qui veulent améliorer les capacités du personnel seront d'accord avec ma proposition.

Donc, utilisateurs d'ENN que nous sommes tous, nous devrions nous mobiliser et offrir nos compétences linguistiques afin de faciliter l'accès à l'information à nos équipes sur le terrain. Nous comptons toujours sur les communautés pour offrir leurs temps à nos projets, donc pourquoi pas nous?!!!

Amicalement,
Brenda Akwanyi

Email: bakwanyi@yahoo.com

Tous les articles traduits seront les bienvenus et seront mis sur notre site Web. Nous espérons également identifier des financements supplémentaires pour la traduction du 'Field Exchange' (Eds).

allowed to guarantee reasonably favourable farm gate prices for poor food producers, and (3) how could nutritious and environmentally suited local crops be protected from export and substitution with inferior imported foods? Second, what menu of public policies (including fair price market policies) and conditions of local governance could revitalise the productivity and especially the livelihoods of the small subsistence and semi-subsistence farm sectors in the least developed countries and the poorer farm sectors of other countries? Third, what technologies would stimulate small semi-subsistence farm productivity? Is a new biotechnology 'green' revolution for Africa needed, or are neglected and under-funded technologies already at hand, such as fertiliser subsidies and agricultural extension services? Finally, and most importantly, who should be involved in designing a new global food regime? What new players with alternative experiences and fresh visions – such as food policymakers from developing countries, non-governmental agencies, community food and nutrition researchers, and representatives of the poor – should join the usual players in planning the next global food regime?

The answers, of course, are contingent on factors outside the food domain and should not reject all the sensible food policies shaped over the past three decades. One can not expect a tabula rasa on which to write a new food regime. We must contend with the fact that dominant self-serving interests and short-sightedness are not confined to the global summit of food policy-making; they can be found at many levels in developing countries as well. There will not be, nor should there be, a mindless return to self-sufficiency policies without taking this fact into account. Further, the economic drivers of rural to urban migration, growing affluence in emerging markets, soaring global energy demands and globalisation of cultures are, so to speak, "toothpaste out of the tube." These will shape the contours of food policy-making, but they should not distract us from learning the 30-year lesson that we will do damage unless global food security policy-making adheres explicitly to the core purpose of lifting up those who have been left behind.

¹ Marchione T. 'A Time to Rethink the Global Food Regime' *Anthropology News*, 49 [7]: 5-6. Reproduced by permission of the American Anthropological Association from *Anthropology News* from volume 49 [7], 2008. Not for sale or further reproduction.

² Drèze and Sen 1989:165-70

WFP food distribution in El Barde, Somalia where rising food and fuel prices have combined with insecurity and a succession of poor rains and harvests

Has financial speculation in food commodity markets increased food prices?

By Noemi Pace, Andrew Seal, Anthony Costello

WFP/Peter Smerdon, Somalia, 2008



Noemi Pace is research fellow at University College London, Centre for International Health and

Development. She was previously a visiting researcher at the Centre for Health Policy at Stanford University and the Sphere Institute in the US. She holds a B.A. in Economics, a Master Degree in Development Economics and a Ph.D. in Economic Theory from the University of Rome "Tor Vergata".



Andrew Seal is a Lecturer in International Nutrition at UCL CIHD. His portfolio of work includes

epidemiology of micronutrient deficiencies and approaches to enhancing the nutritional quality of food aid; assessment, diagnosis and management of acute malnutrition; nutritional support in HIV/AIDS; and the use of GIS for the analysis of access to programmes. Andrew has worked in Bangladesh, Eastern Europe, and many countries in Africa.



Anthony Costello is Professor of International Child Health and head of the Centre for

International Health and Development at the UCL Institute of Child Health, and Director of the UCL Institute for Global Health. His areas of scientific expertise include the evaluation of community interventions on maternal and newborn mortality, nutritional supplementation and international overseas aid flows for maternal and child health.

A different version of the article, shorter and slightly more technical, was published in the *Lancet*, No. 371, May 17 2008, pp. 1648-1650

In recent months, prices of rice, wheat, corn, palm oil and other essential staples have increased dramatically, leading to much debate about "the end of cheap food". The causes of, and remedies for, the food crisis are contested and how this rupture in the *status quo* is resolved will have implications for ecological sustainability, the roles of international financial institutions, and the risk of future nutritional emergencies. In rich countries, food is a relatively small part of household consumption (10-15 %) but in poor countries, many households (especially wage labourers and the landless) use a large share of their income (40% or more⁴) to purchase food, so food price rises adversely affect their purchasing power by reducing real income. Staples account for most food expenditure for the poorest, so increases in their price are particularly damaging, reducing the amount and quality of food consumed, and increasing the risk of malnutrition and its consequences. In this paper we consider the role that financial speculation in food commodity markets has played in contributing to increases in food prices.

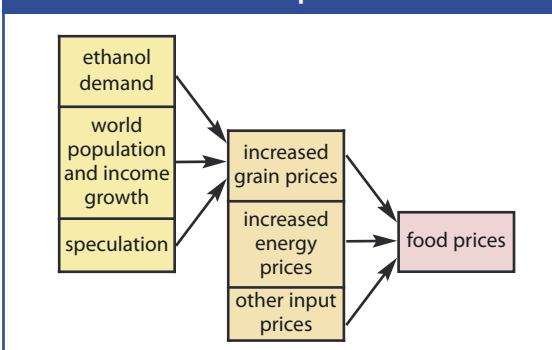
Most analyses focus on changes in demand and supply to explain increased food prices. With rapid economic growth, along with a global population growth, demand for meat and grains (and grain-fed animals) has increased. This rising demand is coming up against supply constraints due to bad weather (a severe drought in Australia, for example)³ and increased production of crops for biofuel. Moreover, the high cost of oil (at over US\$130 per barrel) is increasing investment in ethanol production. An

additional cause of the food crisis, often mentioned by the media, are export bans. Around 40 food-exporting countries have imposed some sorts of trade restriction of food: taxes, quotas, or across-the-board bans. A study by the International Food Policy Research Institute (IFPRI) predicts that getting rid of these would reduce world cereals prices by an average of 30% (See Figure 1 for a simple diagram of the determinants of higher food prices). Joachim von Braun, the head of the IFPRI, says that international action should focus on four things⁴:

1. Expand emergency responses and humanitarian assistance: food or cash transfers should be expanded and should target the poorest people (even though this kind of intervention may distort local markets).
2. Eliminate food export bans: it could be addressed by an *ad hoc* forum of global players negotiating according to a code of conduct and in a spirit of "mutual trust building".
3. Undertake fast-impact food production programmes in key areas: a new Green Revolution is needed, consisting of short-term action to promote agricultural growth by improving access to seeds, fertilizers, and credit for the small farm sector package.
4. Change biofuels policies: a range of measures should be considered to make more grains and oilseeds currently used for fuel available for food and feed.

The Food and Agricultural Organisation (FAO) High-Level Conference on World Food Security, held in Rome at the beginning of June 2008, was mandated to tackle the global food crisis but, in our opinion, failed to address effectively several issues⁵. Regarding *biofuels*, the summit made no headway because there are many different opinions on the effect of an increased production of ethanol on food prices. Some non-governmental organisations (NGOs) want a morato-

Figure 1: Diagram of the determinants of the increase in food prices



¹ "The end of cheap food", *The Economist*, December 6th 2007. Available at: http://www.economist.com/opinion/displaystory.cfm?story_id=10252015
² United States Department of Agriculture (USDA), Economic Research Service. Available at: <http://www.ers.usda.gov/Data/InternationalFoodDemand/>
³ "Raw deal", *The Economist*, April 27th 2008. Available at: http://www.economist.co.uk/daily/columns/marketview/PrinterFriendly.cfm?story_id=11114653
⁴ von Braun, J. (2008). Rising food prices: what should be done. IFPRI Policy Brief. Available on-line at <http://www.ifpri.org/pubs/bp/bp001.pdf>
⁵ "Declaration of the high-level conference on world food security: the challenges of climate change and bioenergy", June 2008. Available at: http://www.fao.org/fileadmin/user_upload/foodclimate/HLCdocs/declaration-E.pdf

rium on ethanol output, saying this would cut grain prices by 20%. Parts of the United Nations (UN) bureaucracy and some big food companies say they would support international restrictions on the production of corn-based ethanol. Others argue that biofuels are fine in concept, but the whole system is based on a set of subsidies, tariffs and production targets that should be changed or reduced. Moreover, there is not agreement on the size of the effect of ethanol production on food prices. Estimates range between 1-2% by Perrin (2008) at the University of Nebraska at Lincoln and 30% by von Braun (2008)⁶. Regarding *export bans*, there is no agreement because countries' interests differ significantly. Summing up, the FAO summit did little to address the issues surrounding biofuels, export bans or social safety nets and completely neglected the role of market speculation and trading in commodity derivatives, partly because empirical evidence on the causal relationship between price increase and volume of trading needs further investigation.

Certainly there is a compelling case to examine critically the role of food derivatives in the ongoing food crisis. Without considering the role of speculation, it is impossible to understand fully how any market functions, especially in today's interconnected and electronically-accessible trading system. Speculation might help explain movements in food prices that demand and supply factors are, by themselves, unable to account for. Indeed, there is now convincing evidence that the recently expanded market opportunities in food commodity derivatives has led to large increases in speculative investment, pushing global food prices far higher than predicted by demand-supply effects.

What are food commodity derivatives?

Derivatives are shadow financial instruments that include types of contracts called forwards, futures, options or swaps⁷. The derivative itself is merely a contract between two or more parties that agree to sell or buy a certain quantity of assets, including stocks, bonds, commodities, currencies, interest rates and market indexes, or in this case, food commodities. These contracts may be used as insurance or for speculation. Speculation is "engagement in business transactions (commodities, stocks, etc) involving considerable risk but offering the chance of large gains in the hope of profit from changes in the

market price"⁸. Speculative purchasing can create inflationary pressure, causing particular prices to increase above their real value by artificially increasing demand. Sometimes price rises due to speculation cause further speculative purchasing in the hope that price will continue to rise. This creates a positive feedback loop in which prices rise far above the underlying value of the commodity, generating an "economic bubble".

Why should the role of speculation in the current food crisis be taken into account?

First, investments in food derivatives such as futures and options have increased greatly⁹. The website of the Chicago Board of Trade encourages speculators, for example, to "trade to hedge or speculate based on expectations of directional price or spread movement in rough rice". Moreover, most of the recent increase in buying food derivatives has come from large investors who invest mostly for speculation.

Even the investment bankers are suspicious of the role of speculation in global food markets. Jim O'Neill, chief economist at Goldman Sachs, said that the rising demand from emerging countries explained some, but not all, of the price surges. "I see so much focus on food, and it seems to be so trendy in the investment world", O'Neill told The Observer. "The underlying dilemma has been created by the wealth of the BRICs (Brazil, Russia, India, China) countries; but, for the past year or so, it's also been a major theme for financial institutions. The markets seem to me to have a bubble-like quality"¹⁰. George Soros added his opinion. "You have a generalized commodity bubble due to commodities having become an asset class that institutions use to an increasing extent," he said. "On top of that you have specific factors that create the relative shortage of oil and, now, also food"¹¹.

There is no consensus in the literature about the relationship between food commodity derivatives markets and price increase and volatility. Some work shows that speculation by large or small traders does not cause sharp changes in prices or volatility and, on the contrary, may provide a useful price discovery role^{12,13,14,15}. Some other studies show that volume of trading in commodities futures affects commodity prices. Sahi and Raizada (2006)¹⁶ also found that the higher volumes in futures markets had significant causal impact on inflation.

Chan, Fung and Leung (2004)¹⁷ find that, in the Chinese futures exchanges, the volume of

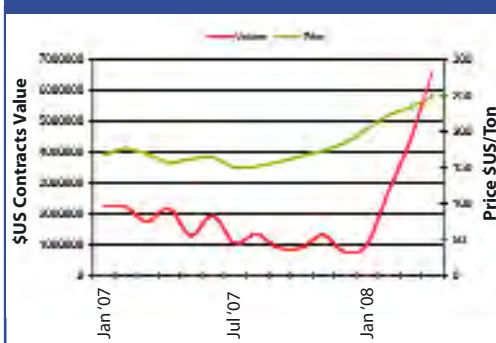
commodities derivatives trading has a positive effect on volatility. Yang, Balyeat and Leatham (2005)¹⁸ examined the lead-lag relationship between futures trading activity and cash price volatility for some agricultural commodities and found that the sign of the causality running from unexpected futures trading volume to cash price volatility is typically positive. This suggests that an increase in unexpected trading volume causes an increase in cash price volatility.

Figures 2 and 3 show the trend of price and volume of trading for corn and rice, respectively. In a recent testimony before the Committee on Homeland Security and Governmental Affairs United States Senate, Michael Masters, Portfolio Manager of Masters Capital Management, a hedge fund, suggests that a particular category of investors, the institutional investors, are contributing to food and energy price inflation¹⁹. Institutional investors are corporate and government pension funds, sovereign wealth funds, university endowments and other institutional investors. Collectively, these investors now account on average for a larger share of outstanding commodities futures contracts than any other market participant. Masters' position is in line with a very recent OECD study that states that the sharp increase of prices may be caused by an increasingly large long position (buying contract) placed by institutional investors.

Masters proposes three actions to reduce speculation on food prices and in particular, to reduce the practice of index speculators. The US Congress should:

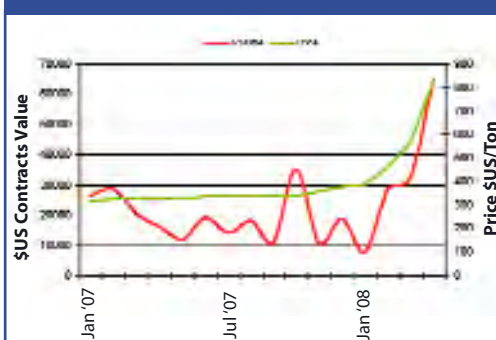
- Modify the regulation of pension funds to prohibit commodity index replication strategies because of the damage that they do to the commodities futures markets.

Figure 2: Volume of Trading in Corn Derivative Contracts and the Global Market Price



Note: Volume of trading and open interest refer to the primary Y axis on the left (CBOT data: <http://futures.tradingcharts.com/chart/CN/M>), while price refers to the Y axis on the right (FAO data: <http://www.fao.org/es/esc/prices>).

Figure 3: Volume of Trading in Rice Derivative Contracts and the Global Market Price



Note: Volume of trading and open interest refer to the primary Y axis on the left (CBOT data: <http://futures.tradingcharts.com/chart/RI/M>), while price refers to the Y axis on the right (FAO data: <http://www.fao.org/es/esc/prices>).

⁶ Perrin, R.K. (2008). Ethanol production and food prices: a preliminary assessment. Faculty publication: Agricultural economics. Available at: <http://digitalcommons.unl.edu/ageconfacpub/49/>

⁷ In the commodity derivatives markets, the most common contracts are options and futures. Options are financial instruments that convey the right, but not the obligation, to engage in a future commodity transaction. A future contract is a standardized contract to buy or sell a commodity at a certain date in the future, at a specified price. A futures contract gives the holder the obligation to buy or sell, which differs from an options contract, which gives the holder the right, but not the obligation. The owner of an options contract may exercise the contract, but both parties of a futures contract must fulfil the contract on the settlement date. The seller delivers the commodity to the buyer, or if it is a cash settled future, then cash is transferred from the futures trader who sustained a loss to the one who made a profit. To exit the commitment prior to the settlement date, the holder of a futures position has to offset his/her position by either selling their contract or buying back a short position, effectively closing their contract obligations.

⁸ "Speculation". Available at:

<http://dictionary.reference.com/browse/speculation>

⁹ "Exchange Volume Report", Chicago Board of Trade.

Available at: www.cbtc.com

¹⁰ "Speculators fuel bubble in global food costs", Heather Stewart, The Guardian, Sunday April 20th 2008. Available at: <http://www.guardian.co.uk/business/2008/apr/20/globaleconomy>

¹¹ "Oil Is Little Changed After Retreating From Record on Dollar", Mark Shenk and Samantha Zee, April 18th 2008. Available at: <http://www.bloomberg.com/apps/news?pid=20601081&sid=aEPHdFg5Y7L0&refer=australia>

¹² Chatrath, A. and F. Song (1999). Futures Commitments and Commodity Price Jumps. The Financial Review 34:95 - 112.

¹³ Garcia, P., R.M. Leuthold and H. Zapata (1986). Lead-Lag Relationships Between Trading Volume and Price Variability: New Evidence. Journal of Futures Markets 6(1):1-10.

¹⁴ Haigh, M., J. Hranaiova and J. Overdahl (2007). Hedge Funds, Volatility, and Liquidity Provision in Energy Futures Markets. Journal of Alternative Investments 9(4):10-38.

¹⁵ Irwin, S.H. and S. Yoshimaru (1999). Managed Futures, Positive Feedback Trading and Futures Price Volatility. Journal of Futures Markets 19(7):759-78.

¹⁶ Sahi, G.S. and G. Raizada (2006). Commodity Futures Market Efficiency in India and Effect on Inflation. Available at: <http://ssrn.com/abstract=949161>

¹⁷ Chan, K.C., Fung H.G. and W.K. Leung (2004). Daily volatility behavior in Chinese futures markets. Journal of International Financial Markets, Institutions and Money 14:491-505.

¹⁸ Yang, J, Balyeat, B.R. and D.J. Leatham (2005). Futures Trading Activity and Commodity Cash Price Volatility, Journal of Business Finance Accounting, Vol 32, No 1 & 2, pp. 297-323

¹⁹ Testimony by Michael Masters available at:

http://hsgac.senate.gov/public/_files/052008Masters.pdf

- Act to close a gap in legislation that allows 'hidden' trading in swaps.
- Compel the Commodity Futures Trading Commission to reclassify all the positions in the commercial category of the 'Commitments of Traders Reports to distinguish those positions that are controlled by "bona fide" physical hedgers from those controlled by Wall Street banks. The positions of Wall Street banks should be further broken down into "bona fide" physical hedgers and speculators.

The argument is sometimes made that speculation is unimportant because the futures speculators will never take delivery of the actual food; but this is precisely the problem and it is why this speculation is highly destructive of the true market. Purchases of agricultural commodities futures contracts have classically been the means by which a limited number of traders stabilised future commodity prices and enabled farmers to finance investments in future crop production. Speculative purchases have no other purpose than to make money for the speculators, who hold their contracts to drive up current prices with the intention not of selling the commodities in the real market, but of unloading their holdings onto an artificially inflated market, at the expense of the ultimate consumer.

This analysis raises two issues. First, if speculation is a major cause rather than supply/demand factors, then prices would be expected to fall significantly over the next months. Robert Ward, of the Economist Intelligence Unit, expects prices to drop by 9% next year and 18 per cent in 2010. Sean Rickard, from the Cranfield School of Management predicted a 40% drop in wheat prices in 2009. But second, it confronts health and nutrition policymakers with a huge new problem. Speculative food price increases are expected to increase directly the proportion of people who are food insecure and will therefore suffer from hunger and malnutrition. This, in turn, will severely setback efforts to achieve the Millennium Development Goals.

More economic research is needed to fully understand the impact on prices resulting from the large increase in food commodity speculation over the past two years. However, in our opinion there is already compelling evidence that increased speculation is causing adverse impacts on global food prices and there is therefore a need for the commodities futures market to be regulated more effectively.

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email: n.pace@ich.ucl.ac.uk
Tel: +44 (0)20 7905 2262

²⁰ "A note on the role of investment capital in the US agricultural futures markets and the possible effect on cash prices", OECD, 2008, Document TAD/CA/APM/CFS/MD(2008)6

Nina Berry/SC UK, Myanmar, 2008



Special focus on Infant and Young Child Feeding in Emergencies

Increased diarrhoea following infant formula distribution in 2006 earthquake response in Indonesia: evidence and actions

By Fitsum Assefa, Sri Sukotjo (Ninik), Anna Winoto and David Hipgrave

Fitsum Assefa is a nutritionist with over 15 years experience working on public nutrition in various countries in Asia and Africa. She has wide experience in emergencies as well as development settings. She led the UNICEF Indonesia nutrition team during 2006/7.

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Anna Winoto is a Nutrition Specialist at UNICEF Indonesia. She has been working on advocacy, technical guidance, implementation and evaluation of public nutrition programmes, including infant young child feeding, for the last ten years, mostly in Indonesia. She holds a Masters in International Health from the Johns Hopkins School of Public Health.

David Hipgrave is an Australian paediatrician with a special interest in international child health and infectious diseases. He joined UNICEF in October 2004 as the Chief of Health and Nutrition at UNICEF Indonesia where he oversaw the responses to a number of disasters, including the Asian tsunami. In February 2007 he joined UNICEF China, where he heads the Health, Nutrition and Water and Environmental Sanitation (WES) Section.

Merapi volcano

Natural disasters are common in Indonesia. While still recovering from a series of such events¹, a severe earthquake struck Yogyakarta² and Central Java provinces during the morning hours of May 27, 2006. The earthquake took about 6,000 lives, injured 40,000 – 60,000 people, and robbed hundreds of thousands of their homes and livelihood. Around the same time, volcanic activity of nearby Mount Merapi increased dramatically, prompting the evacuation of tens of thousands of people. The epicentre of the earthquake was Bantul district in the south of Yogyakarta, while parts of Klaten district in Central Java were also seriously affected (see map).

The context

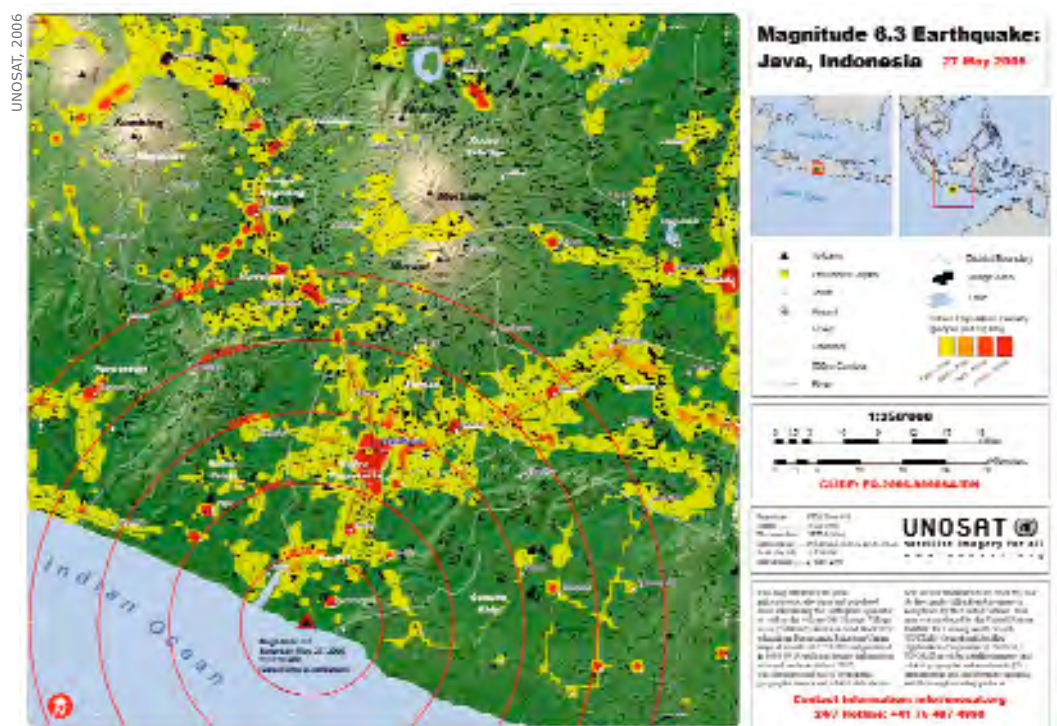
Child undernutrition remains a significant and deteriorating public health problem in Indonesia. The percentage of underweight children under five years of age rose from 24.7% in 2000³ to 28% in 2005⁴. Disparities are sharp across the nation, with malnutrition being more prevalent in the eastern provinces. National data on stunting and wasting is lacking, but localised assessments have found that stunting exceeds 40 percent in the eastern islands⁵ and in Aceh province⁶. Acute malnutrition (wasting and nutritional oedema) was a significant concern in these and other areas during 2005 and 2006, but again, population incidence estimates are lacking. However, economic, health and nutrition indicators for the

earthquake-affected areas of Yogyakarta and Central Java are amongst the best in the country, and primary health care systems function relatively well in both provinces.

Infant and young child feeding (IYCF) practices are also far from optimal in Indonesia. Though virtually all Indonesian women breastfeed, the most recent data found that only 17.8%⁷ of them breastfeed exclusively at 4 – 5 months of age. Promotion of breastmilk substitutes (BMS) is common and formula feeding is widespread. Complementary feeding practices vary widely; major concerns include poor nutrient density, low frequency and early introduction of complementary foods, and the poor sanitation and hygiene environment within which they are prepared. National efforts/investment to protect, promote and support breastfeeding have been inadequate for years, not evidence based and ineffective in improving feeding practices, although committed efforts have improved recently.

Early aid to support infants and young children

The overall emergency response to the 2006 earthquake was rapid, involving civil society, private sector, individuals, United Nations (UN) agencies, non-governmental organisations (NGOs) and Indonesian and foreign military personnel. Literally a few hours after the earthquake, supplies of food and drinks started flowing into the affected region from many different sources. These included large quantities of BMS such as infant formula, powdered milk (Dried Skimmed Milk (DSM)), and various commercial complementary foods. Contrary to key international guidance⁸, many local and international agencies quickly proceeded to distribute commercial infant formula and commercial porridge to infants and young children. Furthermore, there was a strong perception amongst benefactors that as BMS were already widely used in Indonesia, such blanket distribution was just maintaining the status quo. However, there was no hard



Epicentre of the 2006 Indonesian earthquake

¹ The December 2004 Indian ocean Tsunami, the March 2005 north Sumatra earthquake, and many other smaller disasters of flooding, land slides etc.

² Yogyakarta is a centre for Javanese traditional arts and culture and is home to a royal family whose lineage goes back to the Mataram era in the 16th century. It is also a centre of higher education in Indonesia.

³ National Socioeconomic Survey, 2000

⁴ National Socioeconomic Survey, 2005

⁵ SEAMEO and World Food Programme, July-August, 2005. Survey in NTT and NTB, Indonesia

⁶ CARE and UNICEF, July-August 2005. Survey Data in Aceh, Indonesia

⁷ Badan Pusat Statistik-Statistics Indonesia (BPS), 2008. Indonesia Demographic and Health Survey 2007. Preliminary Report.

⁸ Operational Guidance on IFE for Emergency Relief Staff and Programme Managers, v2.1, February 2007. Developed by the IFE Core Group and supported by UN agencies (including UNHCR), NGOs and donors. Available at: <http://www.enonline.net/ife>

evidence to support or refute this perception. Also, in the crisis zone, some of the pre-earthquake 'nutrition rehabilitation' programmes of the government included distribution of BMS, and infant formula companies had been promoting their products through local health care providers, further legitimising this form of assistance in the eyes of relief workers and beneficiaries.

Challenges in cluster coordination

Having learned from experiences in other recent disasters in Indonesia, UNICEF health and nutrition staff advocated for support for



The mother of an infant receives donated milk powder from a health post

appropriate infant and young child feeding during the emergency (IFE) from the first day of the emergency. However, the initial UN assessment and subsequent assignment of roles and responsibilities of the various agencies to Clusters/sub-Clusters did not consider nutrition as a specific issue. In fact, according to minutes of the coordination meeting during the first week of the crisis, some agencies used the UN coordination mechanism to request more BMS. Furthermore, a number of donor government representatives in Jakarta pledged BMS as part of the emergency response. In general, there was very little awareness within the UN, NGOs (both national and international), donors, communities and local government about IFE, despite similar experiences after the 2004 tsunami.

Within a week of the disaster, BMS had been widely distributed to almost every affected household. Major distributors included national and international NGOs, civil society, the army and infant formula companies⁹. There were multiple brands (imported and locally

manufactured), distribution was not coordinated and the amount distributed per child varied from place to place. Avenues for distribution included through the general ration, at temporary and fixed health care facilities and at temporary shelters.

Based on field observations, the UNICEF nutrition team alerted partners to the potential negative consequences of universal distribution of BMS and other milk powders, and challenged the opinion that families were familiar with the use of BMS. The team soon suspected that many infants and young children were suffering from diarrhoea as a result of consuming BMS in poor sanitary conditions. However, these observations were challenged as anecdotal and comments such as "the people and the health care providers request it" or "the population is already dependent on it" were heard.

Reluctance was noted amongst senior managers of the emergency to add another Cluster/sub-Cluster, so nutrition issues were referred to the Food Cluster, led by the World Food Programme (WFP). UNICEF actively participated in this Cluster (later named the Food and Nutrition Cluster), and advocacy on appropriate IFE and mapping of who was distributing BMS and/or other powdered milk was one of the first activities initiated through this forum. However, it was evident that participant agencies were mainly concerned with the logistics of food distribution and not IFE. The Food and Nutrition Cluster did review the composition and adequacy of the general food basket and assisted inclusion of multiple micronutrient sprinkles (supported by Helen Keller International), as a means to improve the nutrient density of available foods for children.

UNICEF also actively participated in the various sub-Clusters on Health, led by WHO (injury, EPI, infectious diseases, reproductive health, mental health, etc.) and continued to report field observations and advocate for appropriate IYCF at every opportunity. However, the issue continued to be minimised, with coordination meeting minutes simply reporting that "UNICEF is concerned about formula feeding and potential risks".

The emergency was overwhelmed with the management of casualties and cases of tetanus. Given the overall lack of interest in nutrition matters, UNICEF successfully advocated and transformed the Reproductive Health sub-Cluster into a Maternal and Child Health and Nutrition (MCHN) sub-Cluster. This created more opportunities to document evidence and start addressing various nutrition issues, including IFE.

One of the priorities of the Reproductive Health sub-Cluster, led by UNFPA and WHO, was to identify and interview all pregnant women in the 7 most affected sub-districts of Bantul. The expansion of this sub-Cluster to MCHN facilitated the addition of critical nutrition interventions for pregnant mothers (specifically, distribution of prenatal multiple micronutrients during the registration process). In addition, this enumeration process was considered an opportunity to acquire population-based data and hard evidence to support further advocacy and intervention on IFE.

Assessment of IYCF practices

From 18-24 June 2006, an IYCF assessment was conducted in tandem with registration of preg-

nancies, involving 831 primary caretakers of children 0-23 months of age. Assuming the occurrence of pregnancy and location of a pregnant woman were 'random', the registration process was used to also 'randomly' identify children under two years of age and to interview their primary caregivers on feeding practices. This sampling method provided a rapid solution to what would otherwise have been a time consuming and expensive selection process.

For every other pregnant woman interviewed, the child aged less than 2 years who slept nearest to where she slept was identified. This could be the child of the pregnant woman or of a neighbour. If there was more than one child under 2 years old in the pregnant woman's household/shelter/tent (or her neighbour's household/shelter/tent), the interviewer randomly selected one of the children for the interview. The primary caretaker (mother, grandmother, etc.) of this child was then interviewed. Standard questions based on standard indicators were used, after pilot testing¹⁰.

Coverage of BMS and/or other milk products

Data on 831 children under 2 years of age (296 children < 6 months old and 535 children 6-24 months old) were included for analysis of coverage of BMS distribution. The data showed that 80% of children under the age of two years received infant formula, while 'follow-on' formula¹¹ or commercial porridge was distributed to 76% of these children. Half (49%) received 'other' milk powder (DSM type) and 31% received locally produced blended/fortified food (see Figure 1). Baby feeding bottles were distributed to 14% of these children.

The issue for infants under the age of six months was not just the uncontrolled supply of infant formula, but also unnecessary distribution of other products, including 'follow-on' formula and complementary foods. Amongst such infants, 75% received BMS, 72% received commercial porridge, 46% received other powdered milk and 28% received complementary food. The labels of the products violated many aspects of the International Code of Marketing of Breastmilk Substitutes¹². Some were labelled in a foreign language, and distributors provided no instruction on preparation or the intended target of the product.

Impact of donations on the use of BMS by infants < 6 months after the earthquake

As can be seen in Figure 2, less than one-third of the infants (32%) under the age of 6 months old had ever consumed infant formula before the earthquake, as compared to at least 43% of those who consumed BMS during the emergency response. The figure of 43% might be an under-estimation of current consumption of BMS, as data were based on 24 hour recall only. Considering the fact that 75% of infants under the age of 6 months (and over 82% of all children under 2 years) had received donations, it is highly likely that more infants and young children did or would consume these products. The 32% pre-hoc consumption amongst young infants strongly challenges the perception that artificial feeding was the 'status quo' in Indonesia. The consumption of BMS was significantly higher in those who received donations, regardless of age (Figure 3).

To try and communicate the potential risks of artificial feeding, cases of those infants and young children who suffered from diarrhoea following change in feeding habit were fol-

⁹ There are three infant formula producing companies in Yogyakarta province.

¹⁰ The questionnaire is available on the ENN website, www.ennonline.net/ife and search Resource Library.

¹¹ These are specifically formulated milk products defined as "a food intended for use as a liquid part of the weaning diet for the infant from the sixth month on and for young children" (Codex Alimentarius Standard 156-19871). Providing infants with a follow-on/follow-up formula is not necessary (See WHA Resolution 39.28 (1986) (para 3 (2))). In practice, follow-on formulae may be considered a BMS depending on how they are marketed or represented for infants and children under 2 years, and fall under the remit of the International Code (see footnote 12). Source: Operational Guidance on IFE, V2.1, Feb 2007.

lowed up and widely reported in local and international media¹³. Though lacking supporting evidence, anecdotal information suggests some of those who received infant formula were not consuming it because of these advocacy and communication efforts by UNICEF and other NGOs soon after the earthquake.

Prevalence of diarrhoea

The data also suggested a significant increase in the prevalence of diarrhoea post earthquake (29%) compared to 1% – 7 % prior to the earthquake¹⁴. Furthermore, diarrhoea prevalence was double amongst those who received donations of infant formula (25.4%) as compared to those who did not (11.5%) (Figure 4). We associated this rise with the changing feeding practices and artificial feeding in conditions of poor sanitation and hygiene following the disaster. The much higher prevalence among BMS recipients as compared to non recipients was regardless of consumption in the previous 24 hours - this suggests that some those who had not consumed it within the 24 hour recall period may have consumed it earlier.

Advocacy and Promotion

The data presented above, available a month after the earthquake, facilitated advocacy and promotion of appropriate IFE in Yogyakarta and Central Java. A press release on the problem was issued urgently by the Ministry of Health (MOH)/UNICEF. The MOH also circulated (in English and Bahasa Indonesia) the Operational Guidance on Infant and Young Child Feeding in Emergencies (ENN/IFE Core Group)¹⁵ to all health workers and partners working in the earthquake areas. Intensive communication on IFE was conducted through local media, with at least one TV and radio station and newspaper (including headline news and popular talk shows) covering these issues at least once a week. A UNICEF video news release, featuring infants hospitalised with diarrhoea following consumption of BMS and

showing the poor hygiene conditions in affected areas, was broadcast widely by most national media and on CNN weekly review.

Journalists were provided with a half-day orientation on major IFE issues – and specifically on the related challenges (and solutions) during emergencies, and were encouraged to continue reporting. They were also briefed on the results of the survey from Yogyakarta.

TV and radio were not widely available among the earthquake-affected population. Thus many agencies used flyers and leaflets to communicate various issues. Traditional arts and entertainment, such as the famous Indonesian shadow puppet show (*Wayang kulit*), were utilised to communicate breastfeeding messages for affected communities. Involving the community in creating the ‘story’ (using real-case examples of mothers who had received donated formula and mothers who have changed infant feeding practices) was also one of the key approaches.

In conjunction with the UNICEF communication team, the ‘CREATE (Communication Resources Essentials and Tools for Emergencies) methodology¹⁶ was used to develop posters and radio/TV spots using community focus groups (see picture). Among all messages and illustrations, highest scores were awarded by the community to those that emphasised the cost of artificial feeding (see example in Picture 1) as mothers realised their reliance on the donation made their breastmilk stop and that they would need to buy more formula once donated supplies were used up. Surprisingly, mothers gave a low score for conventional posters showing a mother and child well attached and happily breastfeeding. They said they have seen such posters all their life, including on packets of infant formula, and that such posters don’t really make an impression, especially as they don’t demonstrate the potential harmful effects of infant formula.



Poster developed by CREATE team using community focus groups

The text in Bahasa says “Breastmilk is the best and it’s free, so why would you want to spend money on an expensive substitute?”. The focus group reported that they liked it because it was funny, attention grabbing and was relevant to their current situation.

Breastfeeding support: an intervention

It was clear, however, that advocacy and promotion alone were not enough to change the situation. Even when mothers were aware of the benefits of breastfeeding and the potentially harmful effects of artificial feeding, this did not result in them successfully reverting to breastfeeding, or protect newborns from similar practices. An active intervention was needed and a ‘cascade’ method of breastfeeding support was developed to do just that.

UNICEF/ MOH-Indonesia aimed to reach large numbers of mothers with breastfeeding counselling and to demonstrate its effectiveness. In Indonesia at the time, there were only a few trained breastfeeding counsellors who are able to provide skilled counselling (40 – 50, at most), spread over a vast country. Even if they were all available to work in the crisis area, they wouldn’t have been able to meet the needs for counselling thousands of mothers affected by the earthquake and the blanket distribution of donated BMS. It was also not feasible to bring counsellors from abroad, given language issues and the scale of support that was required, so a ‘cascade’ method of breastfeeding support using community volunteers was devised.

At its core, the scheme needed frontline counsellors who lived in the communities and possessed adequate skills and knowledge to

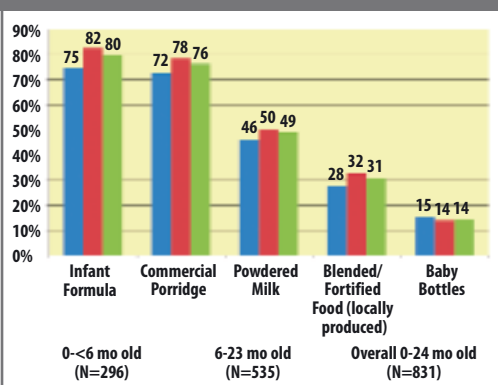
¹² The International Code of Marketing of Breast-milk Substitutes. WHO,1981. Full Code and relevant World Health Assembly (WHA) resolutions are at: <http://www.ibfan.org/English/resource/who/fullcode.html> http://www.who.int/nut/documents/code_english.PDF

¹³ UNICEF video release, 26 July 2006
¹⁴ GOI/HKI, Nutrition and Health Surveillance in rural Central Java. Key results for the period: Dec 1999-Sep 2003. Yr. 5, Iss 10, Jan 2004

¹⁵ See footnote 8. Bahasa (Indonesia) version is available online at www.enonline.net

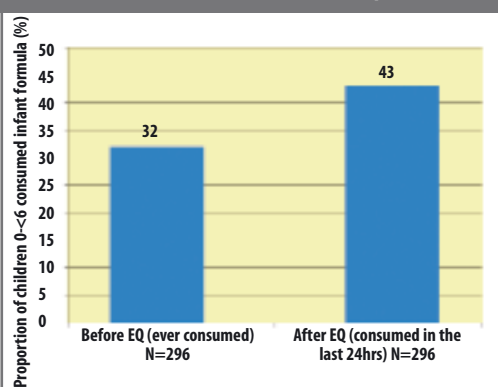
¹⁶ The CREATE method aims to develop and bring together materials for communication in emergencies. These materials can then be rapidly adapted according to local circumstances, as has been done for avian flu in the region. See at <http://www.createforchildren.org>

Figure 1: BMS assistance received by households with infants and young children (%)



mo = months

Figure 2: Consumption of BMS by infants under six months before and after the earthquake



EQ = earthquake

Figure 3: Donations of BMS and current consumption in children under 2 years of age

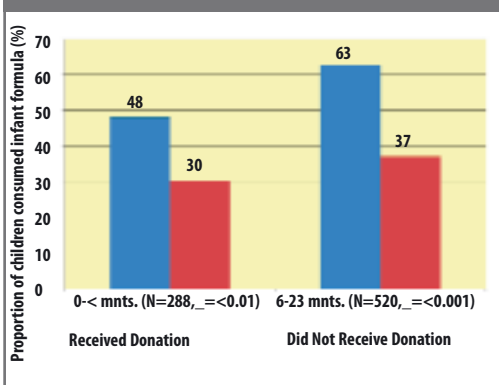


Figure 4: Donations of BMS and current consumption in children under 2 years of age

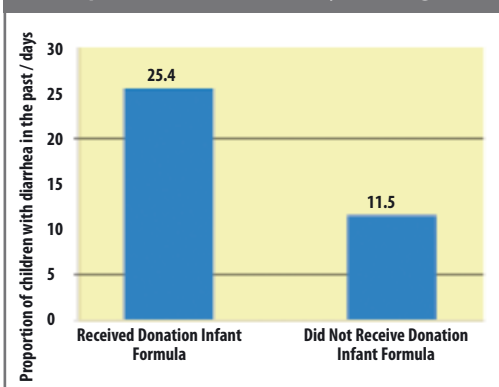
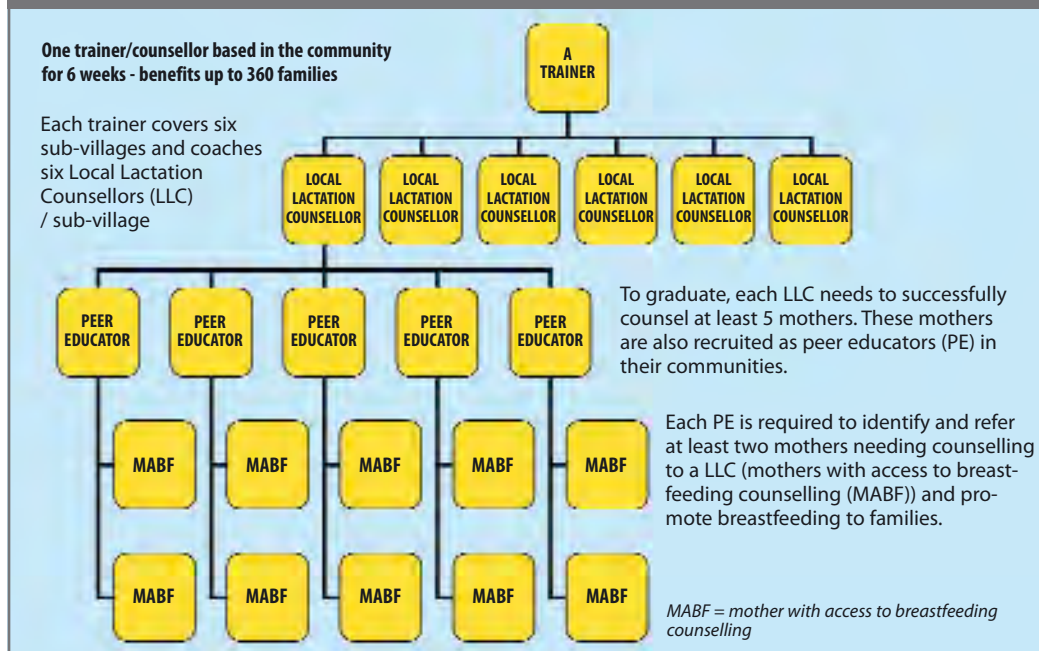


Figure 5: Schematic for cascade of breastfeeding support



train local lactation counsellors to counsel mothers effectively, and to demonstrate results. Realising that the most effective and proven training is the WHO/UNICEF 40 hours breastfeeding counselling course¹⁷, a mechanism to deliver the course at the community level was needed, with an approach sensitive to the context. Major considerations were:

- Competing needs of health care providers and community volunteers, themselves victims of the disaster and already involved in response activities, who could not afford to spend a full week/40 hrs on breastfeeding training alone.
- The setting for training needed to be 'on the job' coaching/demonstration and using cases from the disaster affected community for clinical practice (immediate response).
- Constrained movement, as people did not want to leave their home area for various reasons, including fear of losing their valuables buried under the rubble, lack of local transport, not wanting to leave their family members, especially children, without appropriate shelter, etc.
- People were busy cleaning up the damage and searching for their valuables.
- Only a few trained counsellors could be deployed to the earthquake affected area for extended periods of time.

Training

UNICEF contracted the Indonesian Breast feeding Centre (Sentra Laktasi Indonesia) to design and implement the training programme with the aim of ensuring the highest possible coverage, quality, and sustainability (e.g. through the selection of appropriate participants). Training participants were community workers/volunteers and village midwives. After discussions with them on their availability, it was decided to deliver the training on a twice weekly basis, 3–4 hours at a time, depending on the session. This way the full WHO/UNICEF 40 hours training course with practical skills could be delivered in a six week period. Pictorial based flip-charts were developed to use with mothers. For clinical practice sessions, breastfeeding and pregnant mothers were brought into the training sessions. Facilitators met every evening to evaluate the process of the training on that day. Every Sunday, the facilitators and course coordinators discussed any difficulties with the trainees and visited breastfeeding mothers.

'Cascade' system of support

A target of supporting at least 5,000 mothers was initially established. To address the challenge of how to reach such a large number of mothers rapidly, a 'cascade' system of support was used (see Figure 5):

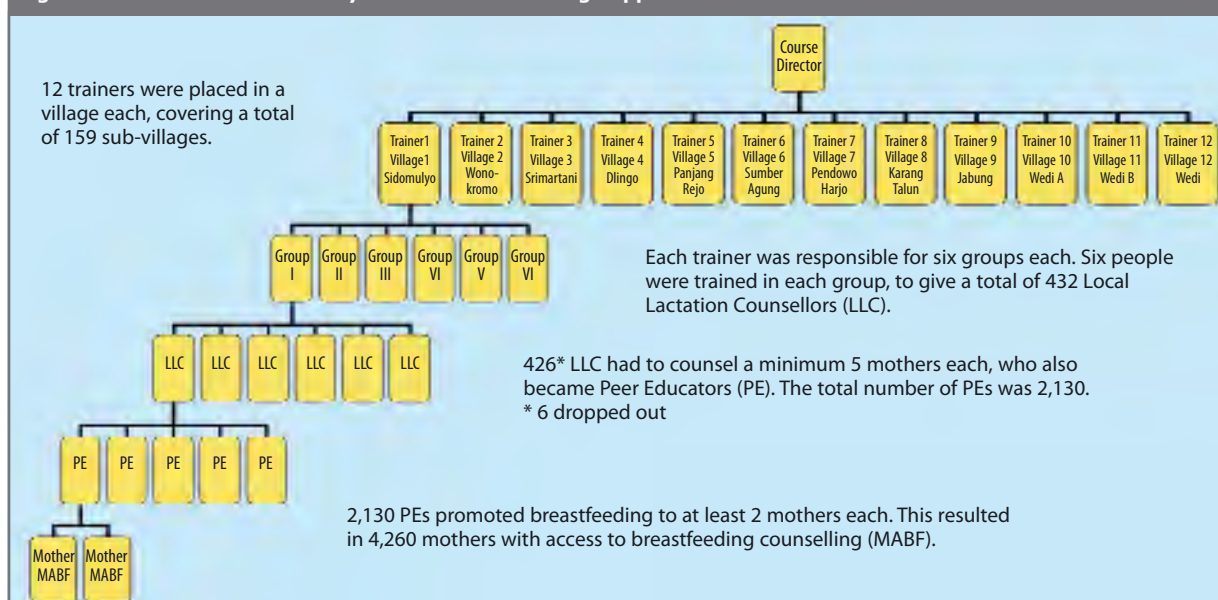
- Twelve¹⁸ frontline counsellors/trainers were placed in the community covering 12 villages. Each village was divided into about six sub-villages (dusun) for which the frontline counsellor was responsible.
- Each frontline counsellor recruited six 'local lactation counsellors' (LLC) from each of their six sub-villages. Thus each frontline counsellor was responsible for coaching a total of 36 LLC on a twice weekly basis.
- These 'local lactation counsellors' were able to provide help and support to pregnant women and breastfeeding mothers to practice early initiation and exclusive breast feeding and to improve their breastfeeding technique. They were also able to identify common breastfeeding problems in their communities such as sore nipples, poor positioning of the baby, mastitis and support mothers reporting that they had "not enough breastmilk".
- In turn, each LLC was to identify and counsel a minimum of 5 mothers with lactation problems. This brought the number of mothers directly receiving counselling as part of the training practice by each frontline counsellor/trainer to about 180.
- In turn, these counselled mothers were recruited to become peer educators (PE). Each PE had to refer at least two other mothers with counselling needs to a LLC. This established the 'trickle' effect of one frontline counsellor reaching up to 360 families.

Impact of active breastfeeding support

Using this cascade approach, 4,260 families were accessed and benefited. (Figure 6). MOH/UNICEF devised a quick monitoring exercise in order to determine any change in breastfeeding practices as the result of this intervention. Fifty-four mothers from 30 sub-villages in the most affected areas in Bantul district who gave birth after the earthquake were assessed (17-31 October, 2006). The monitoring exercise revealed that almost all of these mothers initiated breastfeeding in the first hour after birth as a result of support from breastfeeding counsellors. Of the 54 mothers assessed, 63% were exclusively breastfeeding regardless of access to free BMS - mainly due to the counselling/support they received from trained breast feeding counsellors, who were health workers or volunteers.

In order to investigate the impact of the intervention more closely, a rapid survey was conducted by UNICEF in November 2006 (three months after the training had concluded). The survey was conducted in the earthquake affected area in Bantul (7 sub-districts, 7 villages where there are counsellors in place). A total of 247 mothers with babies born after the earthquake were assessed on their breastfeeding practices. All babies were under six months of age (Figure 7). Follow-up interviews were also conducted with 136 LLC in the areas.

Figure 6: Results of cascade system of breastfeeding support



¹⁷ Available online at: http://www.who.int/child_adolescent_health/documents/who_cdr_93_3/en/

¹⁸ The original proposal aimed to place a pair of facilitators per village. In reality, one facilitator was placed per village.

Feeding patterns in infants

Amongst the mothers surveyed, the rate of exclusive breastfeeding rate was 49.8% (see Figure 8). On further questioning, 39% of the mothers of these infants had previously been giving other liquid and/or food in addition to breastmilk, but reported moving to exclusive breastfeeding after being counselled. However, over one-quarter (28.3%) of mothers surveyed continued to give infant formula in addition to breastmilk and 16.6% were giving foods in addition to breastmilk.

Over half (54.6%) of mothers had received counselling – from the *cadre* – *community volunteer* (69.6%), midwife (21.5%) and both midwife and *cadre* (8.1%). Those who received counselling had better knowledge than those who did not receive counselling: 90% of counselled mothers correctly defined exclusive breastfeeding compared to 55% who had not been counselled.



Infant formula included in the general food ration distribution

When asked how they planned to feed their baby up to the age of six months, 53.3% of counselled mothers answered “breastmilk only” compared to 35% of mothers who did not receive counselling. However, 20% of counselled mothers planned to give infant formula in addition to breastmilk and 22% to give food to their infant before they reached six months of age (Figure 9).

LLC follow-up

Follow-up visits were made with 136 LLC in November 2006. Most (98.5%, n=134) of the LLCs provided counselling after their training through home visits (92%), at village health posts (*posyandu*) (86%), at village health centres (*polindes*) (2.2%), and during women’s group discussions/ *koran* recital (44%). Over half (58%) had counselled 1-5 mothers since being trained and nearly one quarter had counselled 6-10 mothers (see Figure 10).

These findings indicate a positive impact on exclusive breastfeeding rates and infant feeding knowledge amongst mothers of young infants born after the earthquake. Despite the widespread distribution of BMS to the population, the findings suggest that the intervention limited the negative impact this had, since the reported use of BMS amongst those surveyed are similar to pre-earthquake levels. However,

this survey was undertaken only three months after the training was completed, probably too soon to see a behaviour change that represents a change to established complementary feeding practices and infant formula use.

Experiences from implementing ‘cascade’ training

There were a number of challenges to implementing the cascade training:

- Many community workers and health workers were, themselves, affected by the earthquake so it was difficult to find community workers who could commit to participating in the training.
- Variable levels of education also provided training challenges. In some instances, one-to-one training was conducted where workers could not come to the scheduled training. There was minimal support from the local health office, which was more focused on building new premises, manning the health system, and other health issues.
- It took a couple of weeks to develop the idea/proposal and secure the implementing partner (Sentra Laktasi). In the absence of already developed capacity, the process is not sufficiently rapid to provide the critical breastfeeding support needed in the hours, days and immediate weeks after the acute onset of an emergency
- The cost of the training is approximately \$255 per LLC, due to the very limited number of trainers available and the need to bring them to the site, usually from central level. However, this cost should be reduced once the programme was established and trainers are available at district level.

Ongoing support for counsellors has increased their confidence to assist breastfeeding mothers even though most did not have any health background. The ‘cascade’ system using community based volunteers/peer support appears a sustainable breastfeeding service, and continued after the acute stage of the emergency situation subsided.

The ‘cascade’ model has since been replicated by the MOH. The WHO/UNICEF 40 hours breastfeeding counselling training course has been translated into Bahasa Indonesia and the MOH has used the ‘cascade’ model in all of their 40 hours trainings. At the end of each training session, facilitators ask the participants to counsel a minimum of five pregnant and/or lactating mothers. In turn, the mothers should provide information on breastfeeding to their community and refer identified mothers for breastfeeding counselling. There are now around 1500 counsellors across the country.

Discussion and conclusions

Despite a similar experience with donations of BMS during the 2004 tsunami emergency, it was not possible to prevent unsolicited donations and manage the establishment of centralised/controlled BMS distribution system following the Yogyakarta earthquake. However, UNICEF Indonesia had a stronger in-country nutrition capacity by the time of this crisis and was already advocating for and addressing national IYCF issues in close collaboration with the government. Involvement of the government from the outset was key in placing IYCF issues on the highest level of the humanitarian agenda through evidence-based advocacy, awareness-raising and subsequent interventions. Since

Figure 7: Age profile of infants under six months surveyed (n=247)

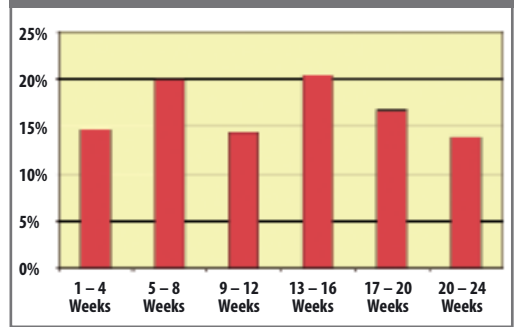


Figure 8: Reported feeding pattern by surveyed mothers (n=247)

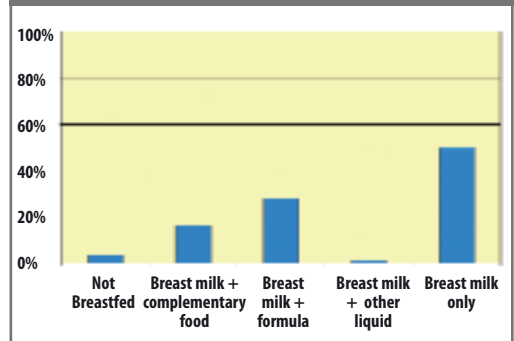


Figure 9: Infant feeding plan amongst counselled mothers (n=135)

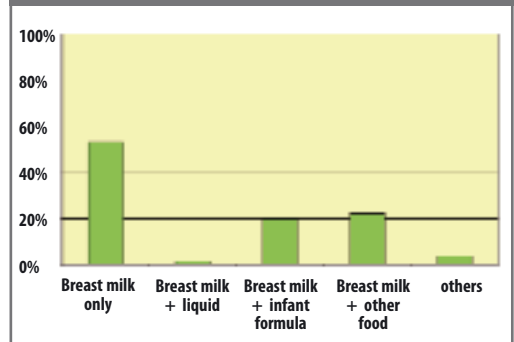
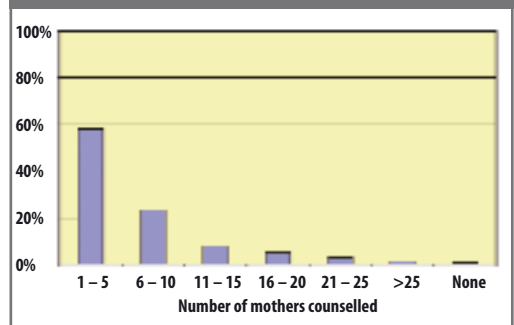


Figure 10: Number of mothers counselled by surveyed local lactation counsellors, November 2006 (3 months after the training concluded)



2006, more national commitment has been expressed and demonstrated in addressing IYCF issues.

Awareness on issues around IFE was very poor amongst the humanitarian actors, including those working on health and nutrition, and amongst the general public. Some of the international NGOs, with competencies in responding to nutrition in emergencies, failed to understand the IFE situation and to identify their role in supporting the government and the community in this area. Having a history of relatively better socio-economic status and good access to food following the emergency, the affected communities may have been misrepresented as ‘not being nutritionally vulnerable’, with a consequent lack of interest and commitment from agencies to address nutrition matters.

Understandably, there was much more pre-occupation with injuries and other issues. It was very difficult to find implementing partners to address the prevailing problems in IFE. Informal networking with key individuals of various agencies was very important to mobilise interest, as many actors were not working through the official coordination mechanism.

Our experience also showed that, without hard evidence, advocacy, awareness raising and subsequent interventions are very challenging. However, conducting a 'stand alone' IYCF survey was not practical – as it would have been both resource intensive and probably poorly accepted by a community already responding to extensive surveys from various agencies and sectors. Devising a cost effective and opportunistic method was necessary to acquire the 'evidence', in this case integrating the survey with exhaustive registration of pregnant women. Working closely with all the clusters and transforming the Reproductive Health Cluster to formally include nutrition as an MCHN Cluster gave access to/pooled resources, and opened up opportunities to document evidence and start addressing nutrition issues, such as through the distribution of antenatal micronutrient supplements. However, there was significant resistance from various partners to integrate IYCF in the registration process of pregnant women. Persistence and full time technical representation was key to convincing partners, enable adequate training of enumerators and ensure rigorous pre-testing and supervision of the data collection.

Conventional IEC (Information, Education, and Communication) using print and electronics media was not very effective in changing feeding practices. Messages that expressed the negative consequences of artificial feeding were more effective than those expressing the benefits of breastfeeding. Knowing the potential danger of BMS distribution was not enough to enable mothers to revert to breastfeeding when BMS were being widely distributed and recommended by health workers and international agencies. Furthermore, mothers had lost their communication assets like radio and TV, and were pre-occupied with the wide-reaching impact of the crisis on their lives, as well as lack of privacy. Therefore, creativity and using context sensitive ideas, low technology and entertaining methods were needed. In addition, raising the awareness and educating politicians and journalists/media producers helped ensure continuous coverage of the IFE issue at prime time news and other programmes, even months after the earthquake. We found that evidence based advocacy, coupled with context specific IEC to the public and counselling services, minimised the harmful effect of widespread BMS distribution.

This experience has demonstrated how the WHO/UNICEF 40 hours breastfeeding counselling training module can be adapted to suit the context and deliver frontline breastfeeding support and counselling. From our experience we believe that volunteers with modest formal education can be successfully trained in breastfeeding counselling in an emergency. An important task for the trainers/training director is to adapt the UNICEF/WHO 40 hour module for these counsellors and to tailor the course delivery mechanism based on prevailing need. Providing hands-on practice, above and beyond the recommended numbers of practices in the WHO/UNICEF guidelines, was a key strategy in training volunteers with no prior health/nutrition training and experience. Using community volunteers was the best choice in this setting, as they were well accepted by their communities to help and support the pregnant and lactating mothers. Creative adaptation of the training was made possible by using a local implementing agency, Sentra Laktasi Indonesia/Indonesian Breastfeeding Centre, whose mandate is to train and counsel on breastfeeding. Through this exercise, the capacity of Sentra Laktasi itself was substantially developed, which is an asset for the country.

Within less than two months of starting the training, an impact of the intervention was quickly demonstrated on the mothers of newborn infants – a critical target group in an emergency. Further assessments suggested that early initiation and exclusive breastfeeding rates have improved significantly as the result of this intervention. We recommend that the impact of this intervention should be studied further and properly documented to support similar future interventions both nationally and globally.

The focus and effort on breastfeeding as part of the earthquake response has actually strengthened national IYCF programming. Efforts are ongoing to further replicate the cascade training method in other districts/provinces. This demonstrates how IYCF programmes in an emergency can evolve into regular programming and in this case, have proved an opportunity to invest in improving the awareness and behaviour of the community and key stakeholders with regard to breastfeeding and artificial feeding.

Finally, commitment to IYCF and related capacity of government, UN, international and local agencies in 'normal' times is the key to more timely and appropriate interventions during emergencies. Strengthening this is an essential 'emergency preparedness' initiative in any disaster prone country, regardless of its socio-economic status.

For more information, contact: Sri Sukotjo (Ninik), email: ssukotjo@unicef.org

Research



A mother and child enrolled in a vulnerability group feeding programme in Zimbabwe

WFP/Richard Lee, Zimbabwe, 2008

Maternal depression and infant growth – review of recent evidence

A recent paper reviews the research over the last 10 years investigating whether there is an association between maternal depression and infant growth impairment. The research focused largely on low income countries where the issue is of high public health importance, given the burden of infant undernutrition.

Eight studies from developing countries, and three from the UK, are described. Cohort studies from both India and Pakistan provided evidence that maternal depression is an independent risk factor for poor infant growth. However, studies from other developing countries are limited and conflicting in their findings. The UK-based research suggests that such an association occurs in mothers/infants living in conditions of socio-economic deprivation.

This review discusses the potential mechanisms by which the relationship between maternal depression and infant growth outcomes may be explained, including:

- the effect of infant growth 'failure' upon maternal mood.
- the impact of maternal depression upon health-seeking behaviours during pregnancy and after birth, breastfeeding and mother-child interaction.
- the relationship between antenatal depression and low infant birth weight.

Various economic, socio-cultural and confounding factors are discussed that may explain the variation between results from different settings, including poverty, birth weight, physical health of the mother (e.g. TB, AIDS), maternal anaemia and maternal personality traits. Differences between studies from the UK and Asia support the hypothesis that maternal depression impacts most severely on infant growth in environments that are 'hostile' to successful child rearing (in terms of economic resources, hygiene and healthcare availability). It may also have greatest impact in the youngest infants who are dependent on their mother for nourishment. In conditions of extreme poverty or in areas affected by severe food insecurity, however, the association may be absent - any measurable impact of maternal depression may be swamped by the impact of poverty/lack of food.

The authors conclude there are probably multiple interacting processes mediating the association between maternal mental ill-health and infant nutrition/growth. Further (ideally prospective) studies are needed to answer key research questions. Given the high prevalence of both maternal depression and infant undernutrition, finding an association has significant public health implications. Based on current evidence, the authors recommend that global strategies to tackle infant malnutrition must include strategies that target the mental health of mothers.

Regional IFE workshop in Bali

Summary of meeting¹

One hundred and twelve participants from 16 countries and special territories, together with regional and international representatives of United Nations (UN) agencies, non-governmental organisations (NGOs) and infant and young child feeding experts, met in Bali, Indonesia from 10-13 March 2008 to reach consensus on how to protect and support Infant and Young Child Feeding in Emergencies (IFE) in the region. The particular focus was on emergency preparedness and the early humanitarian response on IFE.

The workshop was organised by the Emergency Nutrition Network (ENN) as coordinator of the IFE Core Group – an established interagency collaboration developing policy guidance and building capacity on IFE since 1999². The workshop was funded by the Inter-Agency Standing Committee (IASC) Nutrition Cluster and IBFAN-GIFA³.

The aims of the meeting were to orientate participants on relevant policy, guidance, key issues and initiatives in IFE, to identify key constraints to appropriate IFE, and to establish strategic directions and practical steps to address these, at country, regional and international levels.

The four day workshop comprised two days of presentations and discussions that culminated on Day 3 in a series of thematic and country working groups. This was followed by a capacity building workshop on Day 4 that focused upon training needs of frontline workers in a variety of scenarios.

The workshop opened with a reminder of our responsibilities towards infants and young children in emergencies⁴. Subsequent presentations highlighted global efforts on IFE to improve capacity for a timely and appropriate response. These included the importance of the International Code on Marketing of Breastmilk Substitutes (International Code) in protecting infants and caregivers from inappropriate marketing of breastmilk substitutes including during emergencies, an orientation on key provisions of the Operational Guidance on IFE⁵, and the work of the IASC Nutrition Cluster to improve coordination, as well as timely and appropriate interventions, in IFE.

Country situations

A participatory country situation analysis and country presentations on Days 1 and 2 clearly indicated that the current situation with regards to IFE in the region is far from optimal. Most countries reported poor coordination of the emergency response on IFE, lack of national policies that specifically deal with IFE, and low capacity. These issues all contribute to a general lack of services to protect and support breastfeeding, to manage artificial feeding and to have appropriate complementary feeding in emergencies.

IFE often reflects poor prior infant and young child feeding (IYCF) in non-emergencies, making it especially difficult to ameliorate IYCF during emergencies. Much work,

therefore, needs to be done to improve IYCF in general (in preparedness). It was noted that emergencies may actually provide an opportunity to redouble, and even accelerate, country efforts to optimise IYCF practices.

Donations of BMS

Almost all countries at the workshop had experienced receiving large, unsolicited donations of infant formula and other milk products during emergencies. Indonesia presented data collected during the 2006 earthquake response showing clear correlations between receipts of donations, their use, and increased diarrhoea incidence in infants and young children⁶. Given the importance of donations as a regional issue, workshop participants especially appreciated the story of the Philippines' success in winning a court case (2006) to uphold national legislation that allowed adherence to the principles of the International Code⁷.



A country/territory grid prepared by participants on Day 1 to map areas of concern in IFE. Red reflects problem areas, yellow reflects medium problems, green reflects 'no problem'. Each country/territory only had a limited number of 'big problem' and 'small/medium problem' cards, in order to prioritize the areas of main concern.

The media and communication

Many misconceptions around infant feeding in emergencies are perpetuated by the media, which often highlights or initiates calls for donations and often report mothers cannot breastfeed due to stress. An analysis of media coverage during the Bangladesh emergency highlighted the nature of such coverage and the importance of good communications in emergencies. Discussions explored how to improve engagement with the media, communicate key IFE messages and in particular, the risks associated with artificial feeding.

Working Groups

Each thematic working group covered one of the six main components of the Operational Guidance on IFE – i) Policies, ii) Capacity Building, iii) Coordination, iv) Assessment and Monitoring, v) Protection, Promotion and Support of Optimal IYCF and vi) Minimising the Risks of Artificial Feeding. Some key discussion areas were:

- How best to undertake timely and appropriate assessments of IYCF practices in an emergency.
- The lack of guidance and programmatic



experience on interventions to support artificial feeding in emergencies, in particular on integrated programming that supports both breastfed and non-breastfed infants in an emergency context.

- The AFASS (Acceptable, Feasible, Affordable, Sustainable, Safe) criteria, developed in the context of HIV and infant feeding, were considered relevant to any artificial feeding in an emergency context and their application was explored.
- Complementary feeding in emergencies was emphasised as an area of great concern. The increasing use of Ready to Use Therapeutic Foods (RUTF) in the prevention as well as treatment of acute malnutrition raises issues over sustainability, their appropriateness for use as a complementary food, and the need to balance these innovations with more food based/holistic approaches to feeding infants and young children.

The way forward

On Day 3, country/regional/global working groups produced detailed action plans. The regional/global working group highlighted the poor attendance by invited international and regional bilateral donors at the workshop. Key actions were reflected in a Pledge for Action by participants, and a model Joint Statement on IFE to call for appropriate IYCF support during an emergency collectively produced by the participants by the end of Day 3.

This workshop was well-received and well-attended and the result of strong collaboration between many UN and NGO partners and their national counterparts. A post-meeting evaluation is currently underway. It is hoped that this workshop will be the first in a series of regional workshops to raise awareness and build capacity on IFE.

The full meeting report 'Making it Happen', the model Joint Statement on IFE, the Pledge for Action and all presentations are available on the ENN website, www.enonline.net/ife in the IFE Resource Library or request from ENN, email: marie@enonline.net

¹ Infant and young child feeding in emergencies. Making it Happen. Bali, Indonesia, 10-13 March 2008.

² Current members are: UNICEF, WHO, UNHCR, WFP, International Baby Food Action Network-Geneva Infant Feeding Association (IBFAN-GIFA), CARE USA, Action Contre la Faim (ACF) and the Emergency Nutrition Network (ENN). Associate members include Save the Children (UK) and International Federation of the Red Cross and Red Crescent Societies (IFRC).

³ International Baby Food Action Network – Geneva Infant Feeding Association

⁴ Reflected in the UNICEF/WHO Global Strategy on Infant and Young Child Feeding, in Article 24 of the Convention on the Rights of the Child and the Call for Action contained in the Innocenti Declaration 2005 on Infant and Young Child Feeding

⁵ Available at www.enonline.net

⁶ See field article in this issue of Field Exchange.

⁷ See field article in this issue of Field Exchange.

MAMI Project – Call to share experiences

Provision of guidance on the management of malnutrition in infants under six months of age is severely hampered by a poor evidence base upon which to base materials. Consequently, there are difficulties supporting these infants. The Management of Acute Malnutrition in Infants (MAMI) Project was developed to investigate the management of moderately and severely malnourished infants under six months in emergency programmes, in order to establish interim good practice guidelines. Funded by the UNICEF-led Inter-Agency Standing Committee (IASC) Nutrition Cluster, the MAMI Project is being implemented in a collaboration between the ENN, The Centre for International Health and Development (CIHD) at UCL, London and Action Contre la Faim.

The objectives of the project are to establish what is currently advised or recommended in the form of guidelines, policies and strategies by different organisations and to determine what is carried out in practice. Quantitative data collection is well underway and we now wish to develop the qualitative component.

We are keen to capture the experiences and observations of those who encounter infants under six months in the course of their work – whether at an advisory (e.g. agency headquarters) or field level, and whether agency-based or as an individual. You may be directly involved in managing malnutrition in this age-group, or have been faced with the challenge of ‘what to do’ when they present. You may have years of experience or this may be your first field posting – either way, we want to hear from you.

Over the next couple of months, the lead researcher will be carrying out phone interviews with field staff. If you would like to contribute, email/call/write (see below) with your contact details and a couple of lines on your experience, and he will call you back.

Contact: Marko Kerac, Research Fellow & PhD Student, UCL Centre for International Health & Development, 30 Guilford Street, London WC1N 1EH, UK

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www.ucl.ac.uk/cihd/research/nutrition/mami
www.ennonline.net/research

UNHCR guidance on infant feeding and HIV

UNHCR has recently released a brief guidance on infant feeding and HIV in the context of refugees and displaced populations. This guidance aims to assist UNHCR implementing and operational partners and governments on policies and decision-making strategies on infant feeding and HIV in refugees and displaced populations. It was prepared through collaboration between the Public Health and HIV section at UNHCR Geneva, the Emergency Nutrition Network (ENN) and IBFAN-GIFA¹. Inputs were provided by UNHCR country programmes and the World Health Organisation (WHO).

Beginning with an overview of the current technical and programmatic consensus on infant feeding and HIV, it continues with guidance to facilitate effective implementation of HIV and infant feeding programmes in refugee and displaced situations, emergency contexts, and as an integral element of a coordinated approach to public health, HIV and nutrition programming.

Copies of the booklet can be obtained from: Public Health and HIV Section, UNHCR, Case Postale 2500, 1202 Geneva, Switzerland
Email: hivaid@unhcr.org <http://www.unhcr.org/hivaid>
www.unhcr.org/nutrition



¹ International Baby Food Action Network-Geneva Infant Feeding Association

Philippine Nutrition Cluster's battle for the best: the breast

By Ms. Florinda Panlilio, Department of Health, Philippines



Ms. Florinda Panlilio is a Nutritionist-Dietitian IV in the Department of Health – Health Emergency Management Staff, which she joined in 2003. Her current responsibilities include training of nutritionists/dietitians in relation to emergencies and disasters and the development of training modules for nutritional assessment and management during emergencies/disasters.

The author would like to acknowledge the technical and funding support of the UNICEF – Philippines Office, which enabled participation in the regional IFE workshop in Bali at which these experiences were shared, and Dr. Nicholas Alipui, UNICEF country representative in the Philippines at the time, whose work was consulted in preparation for this article.

The Philippines lies along the typhoon belt of the Western Pacific, making it prone to various hydro-meteorological hazards. The country experiences about 20 typhoons annually, which is almost one quarter of all typhoons that occur in the world. Five to six of these typhoons are considered to be of the strongest types and usually cause major damages to life and property. Aside from the destructive winds brought about by typhoons, these can also trigger floods, landslides, and mudslides. Out of all the natural disasters which affect the Philippines, typhoons prove to be the largest killers followed by earthquakes, volcanoes and floods. An inter-agency government team, representing the National Disaster Coordinating Council, has identified 27 out of the 80 provinces as the most prone to hydrological hazards.

The occurrence of strong typhoons always has severe consequences for affected communities, especially if followed by secondary hazards such as floods, landslides and mudslides. Death, loss of livelihoods and destruction of infrastructure frequently occur. Access to food supplies may be constrained while food interventions like school feeding may be disrupted. A significant number of food warehouses and commercial stocks are often destroyed/damaged.

The Cluster Approach in the Philippines

The National Disaster Coordinating Council (NDCC) Memorandum Circular No.5 of May 10 2007 called for the institutionalisation of the Cluster Approach¹ in the Philippine Disaster Management System. With the introduction of the Cluster Approach by the UN-Office for Coordination of Humanitarian Affairs (OCHA) eleven clusters were organised. The Nutrition Cluster is led by the Department of Health (DOH) with the Health Emergency Management Staff (HEMS) as its lead, the National Nutrition Council (NNC) as its Assistant Lead and UNICEF as the Inter-Agency Standing Committee (IASC) Focal Agency Counterpart. The leads and member agencies² participated in a National Clusters' Contingency Planning Workshop in Pampanga on September 18-20, 2007 where agreement was reached on the general objective of the Nutrition Cluster. This is 'to ensure that the nutritional status of affected populations will not worsen or deteriorate due to the impact of a disaster'. Specific nutrition cluster objectives are enumerated below:

- To ensure that the foods provided/distributed are nutritionally adequate and safe especially for vulnerable groups (such as infants, under fives, pregnant and lactating women, elderly, women heading households, men involved in disaster response, etc.).
- To conduct rapid assessment of the affected areas and ensure timely delivery of appropriate response.
- To conduct promotion, support and protection of infant and young child feeding (IYCF) practices, including infant and young child feeding in emergencies (IFE), as well as provision of micronutrient supplementation.

UNICEF supported a mass breastfeeding event that earned a Guinness World Record for simultaneous breastfeeding.



- To provide supplementary feeding to children who are diagnosed as moderately malnourished and treatment to children who are diagnosed as severely malnourished.
- To promote distribution and consumption of fortified foods.
- To conduct training, seminars and other capacity-building activities related to nutrition education, and to provide counselling to affected populations.
- To establish an effective and efficient coordination, networking and reporting mechanism/system among all cluster members and related organisations and agencies.
- To facilitate initiation of early rehabilitation efforts, i.e. community kitchen set-up, food production.

Challenges to protection and support of IFE Prevailing infant and young child feeding practices

One of the priority areas for the Nutrition Cluster is the protection and support of infant and young child feeding in emergencies. However one of the key challenges is the poor prevailing IYCF practice. Survey data from 2003³ found that half of all infants were exclusively breastfeeding for less than 24 days, down from 1.4 months in 1998, and only 16% of babies were exclusively breastfed for 4-5 months - well short of the recommended six months. Reasons given by surveyed mothers were: not enough breastmilk (30%), mother working (17%), and

nipple/breast problems (17%)⁴. These responses indicate that women were not properly informed and supported to initiate and sustain breastfeeding. Other significant constraints include the limited government resources for breastfeeding promotion, strong and persistent marketing by milk/infant formula companies, penetration of the health care system by infant formula marketing and little concern, support or protest from the public, civil society or media.

The power of marketing

In the Philippines, the legislative enactment of the International Code of Marketing of Breastmilk Substitutes is reflected in the national Milk Code. Efforts to strengthen it in 2006 - in the form of the Implementing Rules and Regulations (IRR) of the Milk Code - were challenged in court (see Box 1 for details). Despite an initial restraining order, the eventual ruling in favour of the DOH and the IRR has proved an inspirational test case for many other countries. While the Nutrition Cluster considers the Supreme Court's ruling to be a major victory for children in the Philippines, it recognises that the work has just begun if the breastfeeding culture in the country is to be revived, especially during emergencies/disasters. An enormous challenge is the battle against the milk companies, with their multi-billion peso budgets and widespread influence. UNICEF has been consistent in supporting the DOH in pushing the 'BREAST' brand through strong communication and advocacy principles. It is also recognised that public awareness must be increased and institutional involvement strengthened through initiatives such as the provisions of 'Breastfeeding Corners/Stations' in selected malls like the Shoemart located nationwide and the New City Commercial Centre Malls in the Visayas and Mindanao Regions.

Donor driven assistance

A record was kept of 'in kind' donations channelled through the Department of Social Welfare and Development (DSWD) in April 2007 for the victims of Typhoon Reming. The donations by non-governmental organisations (NGOs), government agencies, and schools

included infant formula and assorted powdered milk. In the disaster sites, evacuation camps typically had no space to promote breastfeeding. Forty per cent of all that arrived in the first three days was mostly from foreign sources and was not monitored. The humanitarian response was fragmented, independent, and reflected the donor driven assistance of NGOs. Generally, NGOs preferred to have their own system of distributing aid, at times choosing areas with the widest media coverage. Some donor agencies went directly to communities without prior consultation and coordination with national and local disaster coordinators to assess needs. Unsurprisingly, therefore, there was an abundance of relief goods available and inefficient distribution systems in place.



Formula for Disaster DVD

Protective policy

In order to resolve certain issues and generate policy from best practices, the DOH-Health Emergency Management Staff (HEMS) in collaboration with the World Health Organisation (WHO) conducted a series of Post-disaster Evaluation Workshops:

- WHO/DOH-HEM Collaborative Post-Disaster Workshop on the Development of a Health Sector Rehabilitation Plan for the Most Affected Municipalities of the Philippine Floods of 2004 (February 22, 2005)
- Department of Health/NGO Coordination Meeting on the Health Emergency/Disaster Response (May 03, 2006)
- Workshop to evaluate the health cluster response to the typhoon disasters of 2006 (conducted on 15 May - 30 June 2007).

These evaluations concluded that the lack of guidelines and clear-cut strategies for managing the flood of donations post-disaster meant that there was a lack of local capacity to handle the volume of aid, and inappropriate as well as inequitable distribution of donations. There was an immediate 'Call for Action', specifically the development of a national policy for managing humanitarian aid and strengthening of local capacities to prepare for and manage relief

¹ For more information on the Cluster Approach, visit <http://www.humanitarianreform.org/>

² Member agencies include DOH-National Center for Disease Prevention and Control (DOH-NCDC), Department of Science and Technology - Food and Nutrition Research Institute (DOST-FNRI), Philippine National Red Cross (PNRC), World Health Organization (WHO), Save the Children, Plan International, Hellen Keller International, Department of Social Welfare and Development (DSWD), Department of Interior and Local Government (DILG), Department of Education (DepEd), and United Nation's Population Fund (UNFPA)

³ National Demographic and Health Survey, 2003

⁴ NDHS, 2003

⁵ View the film at

<http://boycottnestle.blogspot.com/2007/05/watch-film-from-philippines-here.html> or order the DVD from Baby Milk Action, <http://www.babymilkaction.org/shop/videos.html>

Box 1: The Code/Milk Code in the Philippines

The International Code of Marketing of Breastmilk Substitutes was adopted by the World Health Assembly Resolution in May, 1981. The Code has been further clarified and augmented through subsequent World Health Assembly Resolutions. Companies are urged to ensure their practices comply with the Code at all levels. It is a global recommendation and all States are urged to incorporate it into national legislation.

Reflecting this, in 1986, the Philippines adopted legislation to control the marketing of BMS - called the Milk Code. However a move to strengthen it in 2006 (Implementing Rules and Regulations of the Milk Code) was met by opposition from the Pharmaceutical and Health Care Association of the Philippines (PHAP), and a temporary restraining order was placed by the Supreme Court on the new regulations. In June 2007, the Supreme Court heard arguments from both sides. Their decision in October 2007 agreed partially with PHAP in relation to a total ban on advertising of all products under the scope of the Milk Code and that administrative sanctions exceeded the power conferred upon DOH by the Milk Code. However, they ruled in favour of the DOH and lifted the TRO - based on the fact that other parts of the RIRR were consistent with the objective, purpose and intent of the Milk Code and it constituted reasonable regulation of an industry whose activities affect public health.

The experience from the Philippines is significant because the ruling very much supports the principles and implementation of the International Code and has relevance to other countries. The second unique and significant lesson about the Code fight in the Philippines was that despite the size, power and resources behind the PHAP case, the DOH, with the support of UNICEF, WHO and many national and international NGOs, was able to develop a massive, powerful lobby for breastfeeding protection and support, that has been sustained.

The International Code is available at: <http://www.ibfan.org/english/resource/who/fullcode.html>

Box 2: Philippine's National Policy on acceptance and handling donations in emergencies

Title

Administrative Order 2007 – 0017 “Guidelines on the Acceptance and Processing of Foreign and Local Donations During Emergency and Disaster Situations

Objective

This shall provide a rational and systematic procedure for the acceptance, processing, and distribution of foreign and local donations that are exclusively for unforeseen, impending, occurring, and experienced emergency/disaster situations.

Definition of terms

DOH Package List for Emergencies and Disasters – shall refer to a listing of items for donation, such as, drugs/medicines, medical supplies, medical equipment, processed foodstuff, micronutrients, environmental supplies, and others. Such list shall be issued by the DOH, in consultation with other government agencies, NGOs, GOs, and other concerned entities.

General Guidelines

Items for donation may be in any form, such as drugs/medicines, medical supplies, medical equipment, processed foodstuff, micronutrients, environmental supplies, and others that may be substantial in addressing emergencies and disaster situations.

Guidelines for Acceptance

Infant formula, breast-milk substitute, feeding bottles, artificial nipples, and teats shall not be items for donation. No acceptance of donations shall be issued for any of the enumerated items.

supplies. This initiative was primarily aimed at increasing public awareness, sustaining public support, promoting breastfeeding practices especially in the evacuation centres/camps, establishing a better relationship with donors, setting standards and procedures on management of donations, and enhancing local capacities in handling donations.

The availability of a number of key national and international guidelines and policies facilitated the drafting of the policy. The observed organisational support and agency collaboration was an added strength in pursuing the initiative. The Health Department's budget for breastfeeding promotion for 2008 was increased to \$818,000, in addition to funding support from international organizations like UNICEF and WHO. Notable sectoral support included:

- The Catholic Church produced a special newsletter on breastfeeding and made announcements about breastfeeding on the Catholic Radio Station, Radio Veritas.
- Environmental groups distributed press releases, letters to the editor and articles extolling the benefits of breastfeeding in preserving the environment.
- Legislators filing new bills to support breast feeding and reinforce the Milk Code
- Breastfeeding promotion activities organised by the private sector, such as the 'Mommy Milkshake Marathon'.
- The popularity of the short documentary film, *Formula for Disaster*⁵, has meant it has undergone translation into Italian and Khmer and caught the attention of breast feeding groups in UK, Australia and United States where the film was distributed. The film exposed the ways that milk companies were using health care workers to market their products directly to women, offered incentives to health workers, and caught on film how health workers themselves marketed breastmilk substitutes, even to the poorest women.

Dissemination strategy

In the process of writing the policy, the Technical Working Committee led by the

DOH – Bureau of International Health Cooperation (BIHC) was engaged in a series of critiquing, revisions, and securing clearances from relevant and concerned agencies before the policy was finally approved and signed by the Secretary of Health. This was immediately followed by intensive dissemination by cluster members at a national convention on HEM, cluster and sectoral meetings, IYCF training and donor conferences. BIHC further endorsed the policy to the foreign embassies based in the Philippines through the Department of Foreign Affairs, in order to safeguard arrival and receipt of foreign donations. The key points of the Signed National Policy that supports IFE is presented in Box 2.

Conclusions

The Nutrition Cluster commits to remain active and vigilant in protecting, promoting and preserving breastfeeding practices in the Philippines, especially in times of emergencies/disasters. Since every disaster is unique, each experience offers an opportunity to learn and strengthen emergency/disaster management systems. The Nutrition Policy in Emergencies/Disasters is nearing finalisation. Furthermore, the cluster membership will now be guided by a Terms of Reference (TOR) in order to strengthen partnership and clearly define areas of collaboration. The wide dissemination of the policy guidelines and the IRR of the Milk Code are among priority concerns. The advocacy campaign is being reinforced but nutrition workers need to be oriented in nutrition management in emergencies/disasters. At the end of this process, it is hoped that sound nutrition management in emergencies will be a way of life for every Filipino.

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Agency profile



IBFAN-GIFA

Name:	IBFAN-GIFA (International Baby Food Action Network – Geneva Infant Feeding Association)
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Phone:	00 41 22 798 91 64
Email:	lida.lhotska@gifa.org ; rebecca.norton@gifa.org
Website:	www.gifa.org ; www.ibfan.org
Year founded:	1979
Director (if applicable):	None
No. of staff in IBFAN-GIFA (there is no HQ):	4.9 whole time equivalents
No. of staff in all IBFAN offices:	There are more than 100 offices and much of the work is also done by volunteers.

Interview by Jeremy Shoham

The ENN interviewed Rebecca Norton and Lida Lhotska from the Geneva Infant Feeding Association (GIFA) as part of the Field Exchange agency profile slot. GIFA was originally set up in 1979 and was the first International Baby Food Action Network (IBFAN) office. Rebecca, a London School of Hygiene and Tropical Medicine nutrition graduate, worked for a few years in the field for Médecins Sans Frontières Holland, with further training in tropical community medicine and health. She first worked for IBFAN-GIFA in 1999, trained in Breastfeeding Policy and Practice at the Institute of Child Health, London and then did a seven year stint in the Swiss Fondation Terres des hommes (Tdh) before rejoining IBFAN-GIFA in 2008. Lida, who has a PhD in anthropology and trained in community based programming in Stanford university, co-founded the first Czech IBFAN group in 1990. She then worked as a senior advisor on infant and young child feeding in UNICEF New York for seven years and moved to IBFAN-GIFA in 2001.

IBFAN was founded on October 12, 1979 following the Joint WHO/UNICEF meeting on infant and young child feeding. This meeting adopted a statement and recommendations to improve breastfeeding worldwide and also to create a marketing code to protect populations from unethical marketing of breastmilk substitutes by commercial companies. IBFAN was formed as a coalition of six non-governmental organisations (NGOs) present at the meeting. Its initial role was to follow up on the meeting recommendations and to ensure NGO involvement, as well as provide a voice for NGOs to feed back on the various drafts of the code. In 1981 the International Code of Marketing of Breast-milk Substitutes was adopted by the World Health Assembly. IBFAN stayed together as a growing global network to see



IBFAN LAC, Mexico, 2008

Colleagues from the IBFAN Latin America and Caribbean region together with mothers involved in a programme on prevention of malnutrition in Chiapas, Mexico

how the infant feeding industry complied with the Code and how governments translated the Code into national legislation.

IBFAN hoped that its mandate would be temporary, i.e. there would no longer be a need for its work, however “29 years on and it is still there”. IBFAN-GIFA was IBFAN's first central office and still serves as the host office for the IBFAN network in Geneva, including the fundraising and administrative function for the network's global funding projects.

Within the IBFAN network, IBFAN-GIFA has three main roles:

- i) International liaison office with the UN agencies
- ii) Host to two regional offices (IBFAN Europe and IBFAN Arab World)
- iii) Work on infant and young child feeding issues in Switzerland.

IBFAN is a global network with a horizontal structure. It is formed by over 200 groups in more than 100 countries – South, North, East and West. There is no head office, but a structure of eight Regional Coordinating Offices and two technical support offices, of which IBFAN-GIFA is one. Each of these offices is represented on IBFAN's Coordinating Council (IBCoCo) which meets every 2 years and elects 5 members to the IBFAN Global Council (G-5). The G-5 meets between IBCoCo meetings to work on policy and strategic issues. IBFAN-GIFA is the Secretariat of the G-5.

IBFAN-GIFA reflects the horizontal flat structure of the network and thus does not really have an overall ‘boss or director’. Most IBFAN-GIFA work is undertaken in a consensual manner amongst its seven part-time staff members in Geneva (equivalent to 4.9 full time positions).

The Infant Feeding in Emergencies (IFE) Core Group grew out of a series of meetings starting in 1994 and culminating in the IBFAN-organised meeting in Croatia in 1998, attended by WHO, UNICEF and a number of NGOs. Two major recommendations emerged from this meeting. First, that the political aspects of IFE needed to be urgently addressed as there was inadequate policy guidance on IFE. Secondly, that training tools on IFE needed to be developed as a priority for different audiences, e.g. technicians/health professionals, donors, media, etc. The coordination council of IBFAN delegated that IBFAN-GIFA act as the working face of IBFAN in the IFE Core Group.

The IFE Core Group has made a lot of headway since the Croatia meeting. First, on the pol-

icy side, the IFE Core Group has helped produce operational guidance on IFE. This is very much a living document (currently on version 2.1 produced in 2007) that always endeavours to be up to date. The most recent version has, for example, taken account of recent experiences in Indonesia, Pakistan and Lebanon. The IFE Core Group actively seeks out new information from the field which can feed into revised drafts. On the capacity building side, the IFE Core Group has now produced two training modules. One is for decision makers and the other for more ‘hands on’ practitioners dealing with critical issues around lactation management and how to support babies who aren't breastfed.

Other key achievements of the IFE Core Group include their collaborative policy work with UN agencies and donors, for example, working closely with UNHCR to develop their policy on milk product distribution and guidance for their staff on infant feeding in contexts of HIV infection. The group have also worked closely with the Department for International Development (DFID). The Swiss government policy on the Standards governing the use of milk products in the context of food aid was also updated in 2006 with important contributions from Tdh and GIFA.

Rebecca (who has worked for a previous NGO member of the IFE Core Group – Fondation Tdh) feels that IBFAN-GIFA and the ENN have been the main movers and shakers in the IFE Core Group and to some extent have kept the group “afloat” – especially when funding has been an issue. “However, with recent main-stream funding through the nutrition cluster, things are definitely looking up”.

Funding for IBFAN comes largely from governments and church related groups. Private sector funding is restricted, i.e. IBFAN cannot accept money from the baby food and infant feeding products industry nor from arms, tobacco or most pharmaceutical industries. During the most difficult funding period, GIFA managed to still fundraise for the IFE Core Group and although Nutrition Cluster funding is now in place, long-term funding still remains an issue. UN members of the IFE Core Group have not been that successful in fundraising, although UNICEF and UNHCR have provided some funds while WHO and WFP have provided in kind support. Unfortunately, agencies keep changing their funding priorities so support can never be assumed or relied upon.

ENN asked Lida and Rebecca about some of the challenges the IFE Core Group and IBFAN-GIFA have faced over the years, especially with regard to dilemmas posed by the spread of HIV/AIDS and risks of transmission through breastfeeding. Both acknowledged how, at first, it was very difficult to negotiate a “neutral and acceptable line”. Breastfeeding up until that point had been the gold standard and it was quite a shock when data started coming in on risks of HIV transmission through that route. There was a lot of hostility in some meetings towards the position, supported by IBFAN/GIFA and the IFE Core Group, that the advent of HIV should not mean an end to breastfeeding promotion and support, even in situations of high HIV prevalence. IBFAN-GIFA and the IFE Core Group joined voices with experts who increasingly emphasised the need to consider other factors like patterns of breast-

feeding, in the knowledge that exclusive breastfeeding was protective towards the gut. Eventually, when the 1999 study from South Africa was published showing that exclusive breastfeeding significantly reduced the risk of transmission, there was no real surprise amongst IBFAN-GIFA and the IFE Core Group members. The IFE Core Group continued working on this issue and developed thinking around AFASS and nuancing options in HIV endemic and emergency contexts. Rebecca and Lida now hope that advances in breastfeeding and complementary drug protocols can make exclusive breastfeeding even safer in HIV contexts.

Another more recent challenge to occupy the IFE Core Group and IBFAN-GIFA relates to the increasing interest and support amongst humanitarian agencies to use Ready to Use Foods (RUFs) in the treatment and prevention of moderate and severe malnutrition. The fear is that indiscriminate use of these products may undermine breastfeeding. There are also concerns over the sustainability of this type of intervention – “there is a need for a balance between immediate response and the long-term” and issues of quality control if lots of different products are flooding the market. Other technical issues and challenges currently facing the IFE Core Group relate to treatment of severe malnutrition in infants and the different protocols being adopted by practitioner agencies. The lack of evidence base for best practice is a major concern.

Lida feels that working for IBFAN-GIFA and the IFE Core Group has been one of her most rewarding professional experiences. She has found sustained commitment and endeavour from colleagues, as well as friendship. “People trust each other, are open and honest and there are no egos”. Interestingly, members of the IFE Core Group and technical staff at GIFA are all women. As Lida put it, “when you talk breastfeeding you can count on 90% females to be involved. Once you start talking products and technology, the balance mysteriously shifts”.

Both Rebecca and Lida were keen to emphasise how much of a network IBFAN is and how this plays out in practice. Recent experiences during the Georgia emergency epitomise this. Here, IBFAN put national groups and colleagues in touch with each other. This contributed to the set up of 12 mobile lactation clinics. The IFE Core Group were able to provide all the necessary tools to ensure that best practice was promoted and adopted during this emergency.

Over the years, groups like IBFAN and GIFA have come in for their fair share of criticism – particularly with regard to a certain single-mindedness where breastfeeding is concerned. Some have even suggested that such groups are too ideologically driven. However, even from a brief discussion with Rebecca and Lida, it is clear that their own modus operandi and that of the organisations they work for, is essentially pragmatic, scientific and nuanced. It is therefore no fluke that there has been enormous progress in the IFE field and that outputs have been highly practical and relevant to those caught up in emergencies. Furthermore, the process by which policies and operational tools have been developed and continue to be updated and strengthened is commendably transparent and accountable. Whatever it is that has allowed this to happen needs to be bottled and dare I say it – marketed!



A house damaged by flooding

UNICEF DPRK, 2007

Challenges of dealing with unsolicited donations during emergencies

By Sawsan Rawas, UNICEF DPRK

Thanks to the UNICEF Representative in DPRK, Balagopal Gopalan, for his guidance and support throughout the whole process.

The Democratic People's Republic of Korea (DPRK) experienced very heavy rainfall that caused severe floods in six provinces of the country during August 2007. This caused severe damage to infrastructure, and made some villages inaccessible due to damaged roads and bridges. An estimated 102,400 were made homeless and 54,160 homes damaged.

The International Federation of Red Cross and Red Crescent Societies and UNICEF were the first agencies to respond to the population affected by the floods. Water purification kits and essential medicines were rushed to the affected areas. Following this, the UN Country Team set up the mechanism for a coordinated response to the floods. This involved all the resident agencies, as well as the non-governmental organizations (NGOs) who function in the DPRK under European Union programme support unit identities.

Unsolicited donations of milk powder

In response to the emergency, humanitarian aid started to come into DPRK from many sources. The UNICEF office was alerted to incoming and unsolicited donations of milk powder and baby food. A donation of milk powder from a neighbouring country, which was being supplied as bilateral assistance through NGOs without the knowledge of the Ministry of Public Health, was identified in an OCHA situation report (21 August 2007). A second donation, of 28.5MT of 'baby food and milk products,' from another neighbouring country was disclosed at an interagency meeting.

The immediate concern of UNICEF was that powdered milk would be misused for feeding infants under six months, and would negatively impact on breastfeeding practice and expose all infants to increased risk from diarrhoea. There was a need to advise donors on the appropriateness of the commodities provided as emergency assistance.

Efforts by UNICEF

Having picked up the issue from the Office for the Coordination of Humanitarian Affairs OCHA report, UNICEF immediately moved to raise the issue of the danger of such donations with the originating donors. A letter was drafted and sent to the US-based Missions of the countries contributing these commodities (located in New York) and UNICEF staff met with the representatives of the Missions. Efforts to prevent the donation from coming to the country were not successful and so efforts were concentrated on arranging for an appropriate agency to receive the donation, in order to plan and control the use of the commodities. The Operational Guidance on Infant and Young Child Feeding in Emergencies (IFE) was shared with the Mission in New York and also sent to the capital of the donor country. A request to mobilize support from the UNICEF National Committee was issued from the country office.

Regarding the second donation, the donor had a resident mission in the DPRK. UNICEF drafted a letter to the local Mission and met with diplomats of that country, to underscore the importance of the issue. Our serious concerns were also communicated to the UN Mission of the donor in New York.

In addition to these actions with the donors, a letter was sent to the Government of DPRK in which they were advised to refuse any donations of Breast Milk Substitutes, including powdered milk. It was suggested that any donated milk powder that was unavoidable could be added to fortified blended food or to complementary foods for infants after the age of 6 months.

Follow up by UNICEF

In the Health cluster meetings, UNICEF emphasised the role that breastfeeding plays in protecting the health of infants. The benefits of early and exclusive breastfeeding to both families and the nation were integrated into the training of health personnel. Two million leaflets were developed and printed on diarrhoea prevention and highlighting the role of exclusive breastfeeding (see Figure 1). In addition:

- UNICEF raised awareness with the government of DPRK to ensure privacy for women to

Figure 1: Leaflet developed as part of DPRK response

Looking after a child with Diarrhoea

What you need to know:

- Diarrhoea is one of the most killer diseases in this country. During diarrhoea fluids drain from the body and it can lead to death of the child quickly. It is important to know and do the following things as soon as diarrhoea starts:
- Start with any food available first (see treatment) but ORS is the best.
- Continue feeding including breastfeeding. Breastfeeding can reduce the severity and frequency of diarrhoea.
- If the child is dehydrated with severe or persistent diarrhoea take the child to the household doctor or nearest health facility.
- Good hygiene practices, proper disposal of faeces, Hands should be washed with soap and water after going to the toiletations or before touching food or feeding children.

Treatment:

- Give plenty of fluids for children with Diarrhoea such as:
 - Soups, rice water...
 - Clean water (if not clean then boil for three minutes)
 - Weak tea with a little sugar.
 - Porridge
 - Fresh fruit juice.
- Oral Rehydration Salt (ORS):
 - 1 tablet of zinc may for 10 days for children above 6 months, to help them recover and reduce the chances of future diarrhoeal attacks.

ORS Preparation:

- One liter of boiled cool water is required to prepare a packet of ORS. Remember it should be exactly one litre of water. Less than one liter is harmful for the baby.
- Do not touch water with your hands, use a jug.
- Freshly made ORS within 24 hours only. If over those days and prepare new one.
- If ORS is not available then one liter of water with 1 level tea spoon of sugar and half teaspoon of salt can be used.

For every child: Health, Education, Equality, Protection. ADVANCE HUMANITY.

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설사중에 걸린 어린이 돌보기

주의할 사항:

- 설사는 어린이의 가장 흔한 질병 중 하나입니다. 설사 동안 체액이 몸에서 빠져나가며 어린이의 몸이 탈수될 수 있습니다. 설사가 시작될 때 즉시 다음을 행하십시오:
- 가능한 한 빨리 먹을 수 있는 모든 음식을 계속주세요. 모유 수유를 계속하십시오. 모유 수유는 설사의 심각성을 줄여줍니다.
- 어린이가 탈수 증상(심각한 설사)을 보이면 즉시 가정의사나 보건소를 찾아가십시오. 심각한 설사 증상을 보이면 즉시 보건소를 찾아가십시오.
- 좋은 위생 관행을 실천하십시오. 배설물 처리, 손 씻기, 화장실 사용 후 손 씻기 등 좋은 위생 관행을 실천하십시오.

치료:

- 설사 중에 있는 어린이에게 충분한 액체를 주세요.
 - 죽, 국, 미지근한 차, 쌀국수, 미지근한 과일 주스
 - 미지근한 과일 주스
 - 미지근한 차
 - 미지근한 과일 주스
- 구강 수화염 예방제(ORS):
 - 6개월 이상의 어린이에게는 10일간 하루에 1정씩 주어야 합니다. 어린이의 회복을 돕고 설사 재발을 예방합니다.

구강수화염 만들기

- 1리터의 끓여낸 찬물(10리터)은 1포켓의 구강수화염을 만들기 위해 필요합니다. 기억하십시오: 정확히 1리터의 물을 사용하십시오. 1리터보다 적은 양은 어린이에게 해롭습니다.
- 손이 물을 만지지 마십시오. 물을 사용하십시오.
- 신선하게 만든 구강수화염은 24시간 동안만 사용할 수 있습니다. 그 후는 새로운 구강수화염을 준비하십시오.
- ORS가 없으면 1리터의 물에 1티스푼의 설탕과 반 티스푼의 소금을 넣으십시오.

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UNICEF DPRK, 2007



A road made inaccessible through flooding

breastfeed in cases where they are displaced after the flood. This is integrated in the Emergency Preparedness Response plan (EPRP).

- The relevant section of the Operational Guidance on IFE pertaining to handling of donations (Section 6.1: Handling BMS donations and supplies) was translated, promoted and disseminated to all resident agencies and embassies.

The renewed attention on infant and young child feeding has moved to strengthening country capacity. For example:

- The Baby Friendly Hospital Initiative (BFHI) has been revitalised and reassessment of hospitals is underway. Training on BFHI is ongoing for assessment in three hospitals. The ten steps on BFHI has been printed and distributed.
- A national policy on breastfeeding was endorsed by the Minister of Health and widely disseminated.
- World Breastfeeding Week will be observed in DPRK during the first week of August 2008 for the first time.
- Breastfeeding and complementary feeding awareness booklets have been developed and translated into Korean, in order to provide nutrition education, including messages on the importance of breastfeeding.

Results and Lessons learned

A huge effort was made by UNICEF to try to stop unsolicited donations to the DPRK during the extensive flooding in mid-2007. There was great difficulty in even identifying donations and tracing them back to their source. In this case, UNICEF used diplomatic channels at country, regional and international level to try to inform foreign governments of the global policies and recommendations against the inappropriate use of breastmilk substitutes in emergencies and the problems presented by donations.

Even when pending donations were identified, there was great difficulty in preventing or diverting them and took up a lot of staff time. In the end it was not possible to stop the donations. However it is hoped that the experience and advocacy that took place will influence the nature of donations in the future. This experience highlights that advocacy and raising awareness should be continuous in preparedness for these challenges and not just happen when an emergency strikes.

For further information, contact: Sawsan Rawas, UNICEF, email: srawas@unicef.org

¹ Operational Guidance on IFE available at <http://www.enonline.net/ife/view.aspx?resid=6>

Evaluation

Content Analysis of Training Modules on IFE

By Caroline Wyrosdick, BA, MS

Caroline Wyrosdick recently completed her MSc at Tufts University, concentrating in humanitarian assistance. She works as a nutritionist with the Supplemental Nutrition Programme for Women, Infants and Children (WIC) in Asheville, North Carolina.

Two orientation/training modules on Infant and Young Child Feeding in Emergencies (IFE) have been developed through interagency collaboration¹. In 2007, an independent evaluation of the effectiveness of both Modules as a tool for addressing the challenges of infant and young child feeding in emergencies was initiated and carried out. Key findings of this evaluation are summarized below (the full evaluation is available at www.enonline.net/ife).

Aims

A set of four key criteria were used to evaluate the effectiveness of the Modules' content. The term 'effective' was defined as being comprehensive, applicable and therefore, useful, in various emergency contexts.

Criteria for Analysis

The materials were evaluated against four integral criteria ('characteristics'):

1. Clear objectives and evidence of assessment and evaluation
2. Use of scientific arguments
3. Challenge identification and provision of clear, practical tools for addressing challenges
4. Accessibility

Each criterion had key defined conditions for their evaluation (Box 1). Modules fulfilling all four characteristics were

deemed likely to be most useful to their targeted audiences. If the Module analysed met at least two conditions (and, in the case of characteristic 2, only 1 condition) of a given characteristic, this characteristic was considered to be met.

Outcomes of Content Analysis

The evaluation explored how the Modules met each of the conditions, extensively citing examples from the Modules to evidence findings. Modules 1 and 2 met at least two conditions of each characteristic (excepting characteristic 2 that only had one condition), and therefore met all four identified criteria. Conditions noted as strongly met were: identification of challenges to IFE (Condition 3a) and practical tools to address them (Condition 3b), evidence of interagency collaboration in their creation (Condition 3a) and scientific arguments used (Condition 2).

There were characteristics where all the conditions were not met and/or there was room for improvement. The most significant were:

¹ **Module 1 on IFE** was developed to respond to an identified gap in capacity of emergency relief staff to support IFE. It supported the implementation of the Operational Guidance on IFE that was first produced also in 2001. **Module 2 on IFE** was finalised in 2004 and targets nutrition and health staff directly involved with supporting mothers and children in emergencies. Both are in print and online at www.enonline.net/ife.

Box 1: Criteria/characteristics and conditions for content analysis

Criteria/ characteristics	Conditions
1. Clear objectives and evidence of assessment and evaluation	<ol style="list-style-type: none"> a. Clear objectives including a defined target audience. b. The Modules were created after some form of careful and thorough assessment of challenges involved with infant feeding in emergency contexts. c. Instruction given in the Modules emphasises the necessity of organisations' incorporation of an analysis of infant feeding into any current assessments of food and livelihood security, as well as all rapid assessments conducted after the occurrence of an emergency. d. Within the Modules, the [IFE] Core Group asks for feedback, thus informing their working group of necessary updates.
2. Condition regarding use of scientific arguments	<ol style="list-style-type: none"> a. Modules support claims regarding the health benefits of breast feeding with scientific arguments.
3. Conditions of challenge identification and provision of clear, understandable tools for addressing said challenges	<ol style="list-style-type: none"> a. Specific and common challenges to infant feeding in emergencies are identified. b. Practical solutions including specific tools useful in addressing identified challenges are given. c. Pictures, figures and graphs used as tools are informative and culturally appropriate for various contexts. d. The information and tools offered speak to previously identified target audiences and their dissemination is feasible.
4. Conditions of Accessibility	<ol style="list-style-type: none"> a. Evidence of interagency collaboration in Module creation. b. Module contains clear and concise language and definitions are provided for key terms. c. Modules are accessible to those who want and need to use them. d. Translations of the Modules are available.

Condition 1a. Clear objectives including a defined target audience

Though target audiences are clearly identified and included individuals involved at all levels in emergency response, Module 1's target audience includes "decision-makers and regional planners". This is too vague. It would be helpful to define where possible who the "decision-makers" of interest are.

Condition 3c. Pictures, figures and graphs used as tools are informative and culturally appropriate for various contexts.

Both Modules include extensive graphs, pictures and figures to offer case studies and facilitate discussion. However, many of the pictures in both Modules are of African women and show exposed breasts that may not be culturally acceptable elsewhere. Tailoring pictures in the manuals for different audiences/ contexts is recommended.

Condition 3d. The information and tools offered speak to previously identified target audiences and their dissemination is feasible.

Both Modules 1 and 2 include guidelines for facilitators, including mode of delivery and suggested duration to cover topics for both Modules 1 and 2 and so meet Condition 3d. However, a potential problem may be the ability of field managers to disseminate and field practitioners to filter and process all of the information contained in the Modules in order to devise an orientation/ training. Planning time for devising training and dissemination was suggested as crucial, rather than relying on the distribution of these resources in the midst of an emergency for reference. Including the Modules in routine staff training would be ideal.

Condition 1d: Within the Modules the Core Group asks for feedback, thus informing their working group of necessary changes.

Since both Modules are considered 'working documents', feedback should be solicited more explicitly in the print version of the Modules (feedback is sought online).

Condition 4d. Translations of the Modules are available.

At the time of the evaluation (2007), both Modules were only available in English and this was identified as a significant limitation².

The time lag between production of Module 1 (2001) and the more technical Module 2 (2004) was also noted in the evaluation. Lack of funds to support the module development and the need to address technical gaps (artificial feeding in emergencies and managing malnourished infants under six months) identified in the course of development of Module 2 were the main reasons identified for the delay.

Conclusions

The evaluation concludes that the reviewed Modules are an effective tool and their thoroughness is demonstrated in the content analysis. A limitation of the evaluation is that there is no formal qualitative or quantitative analysis of the Modules' impact. The detailed analysis of the evaluation, especially where conditions are not fully met, should provide useful guidance in the development of these materials and support their implementation.

Since this evaluation, Module 1 on IFE is being extensively revised by the IFE Core Group funded by the IASC Nutrition Cluster. Version 2.0 of Module 1 should be available by Dec 2008 (see news piece in this issue of Field Exchange).

The full evaluation report is available on the ENN website, www.enonline.net/ife in the IFE Resource Library. For further information, contact: Caroline Wyrosdick, email: Wyrosdick@gmail.com

² Since then, Module 2 has been translated into French and Bahasa (Indonesia). Module 1 is being revised through 2008 and translation will be sought for the new version.

M McGrath/ENN, 2008



The large Indonesian delegation at the Bali meeting

People in aid

M McGrath/ENN, 2008



Members of the India country team: Sangeeta Kaul (Save the Children), Dr. Farhat Saiyed and Dr. Sherin Varkey (both UNICEF)

M McGrath/ENN, 2008



The global working group on Day 3

Regional IFE workshop in Bali, Indonesia

Some of the participants at the regional IFE workshop held in Bali, Indonesia, 10-13th March 2008 (see news piece in this issue).



Participants at the Regional IFE Workshop in Bali

M McGrath/ENN, 2008



Thailand country team

M McGrath/ENN, 2008



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Sarath Maun (Ministry of Health) and Sary Svay (Ministry of Planning), both from Cambodia

M McGrath/ENN, 2008



Members of the DPRK team



Afghanistan country team



Filipo Dubari (Valid International) with team involved in research on RUTF use in adults in Kenya (see summary page 9)

People in aid

FANTA/AED, 2008



Jamie Lee

FANTA/AED, 2008



Anne Swindale, Director of FANTA, and Bruce Cogill, UNICEF

FANTA/AED, 2008



Mark Myatt

FANTA/AED, 2008



Prof Mike Golden

FANTA/AED, 2008



Shiferaw Teklemariam, Ethiopia MOH

CMAM Workshop

A selection of presenters and participants at the workshop on integration of community based management of acute malnutrition, held in Washington DC earlier this year (see news piece in this issue).



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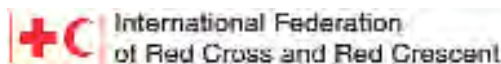
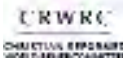
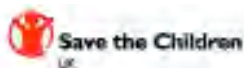
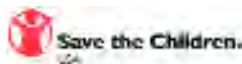
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On the cover

A 'maggoty' feeding bottle picked up from the home of a young breastfed infant during the recent crisis in Myanmar. Nina Berry, SC UK, Myanmar, 2008.



The Emergency Nutrition Network (ENN)

grew out of a series of interagency meetings focusing on food and nutritional aspects of emergencies. The meetings were hosted by UNHCR and attended by a number of UN agencies, NGOs, donors and academics. The Network is the result of a shared commitment to improve knowledge, stimulate learning and provide vital support and encouragement to food and nutrition workers involved in emergencies. The ENN officially began operations in November 1996 and has widespread support from UN agencies, NGOs, and donor governments. The network aims to improve emergency food and nutrition programme effectiveness by:

- providing a forum for the exchange of field level experiences
- strengthening humanitarian agency institutional memory
- keeping field staff up to date with current research and evaluation findings
- helping to identify subjects in the emergency food and nutrition sector which need more research.

The main output of the ENN is a tri-annual publication, Field Exchange, which is devoted primarily to publishing field level articles and current research and evaluation findings relevant to the emergency food and nutrition sector.

The main target audience of the publication are food and nutrition workers involved in emergencies and those researching this area. The reporting and exchange of field level experiences is central to ENN activities.

The Team



Jeremy Shoham (Field Exchange technical editor) and Marie McGrath (Field Exchange production/assistant editor) are both ENN directors.



Rupert Gill is ENN office manager and fundraiser, based in Oxford.



Diane Crocombe is Project and Finance Support Officer, based in Oxford.



Matt Todd is the ENN financial manager, overseeing the ENN accounting systems, budgeting and financial reporting.



Unfortunately Sarah will be leaving ENN in October, as she leaves Oxford to continue further studies in middle eastern archaeology. Her previous experience in archiving has done wonders for our Field Exchange filing system and she will be missed!



Orna O'Reilly designs and produces all of ENN's publications.



Phil Wilks (www.fruity solutions.com) manages ENN's website.

The opinions reflected in Field Exchange articles are those of the authors and do not necessarily reflect those of their agency (where applicable).

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