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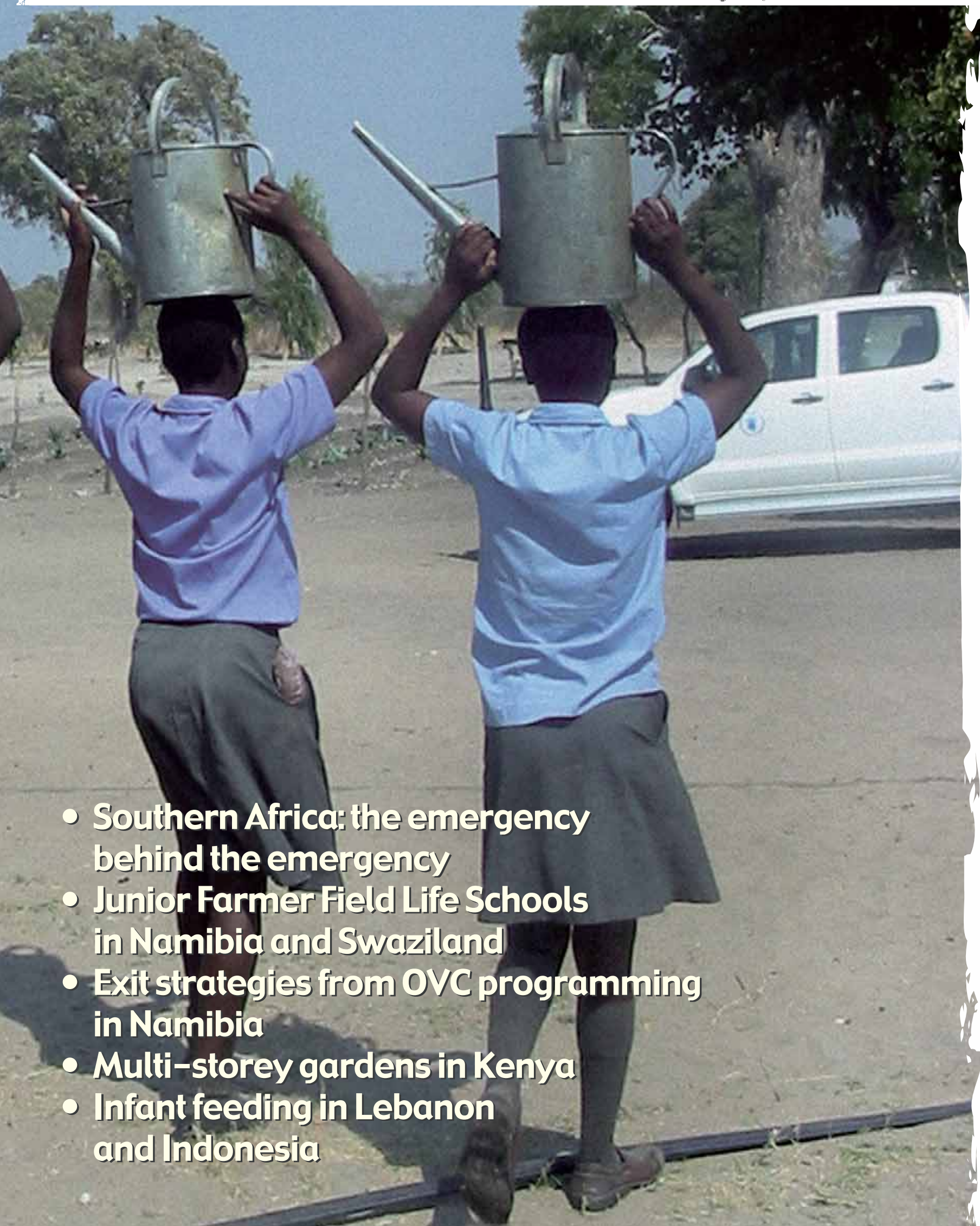
Field Exchange

Emergency Nutrition Network



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From the Editor

There are two major themes running through this issue of Field Exchange. The first is a focus on Southern Africa and the programmatic challenges presented by HIV/AIDS and the second concerns infant and young child feeding in emergencies (IFE). An extended visit to South Africa over the summer by ENN co-director, Marie McGrath, offered the opportunity to visit several collaborative WFP programmes in Swaziland and Namibia and also to identify significant HIV-related research in the region.

Setting the scene in Southern Africa, George Aelion of WFP describes the 'hidden emergency behind the emergency' due to the HIV/AIDS pandemic in the southern Africa region. Many working in the region now consider the triple threat of HIV/AIDS, attrition of government staff resulting in diminishing government capacity to provide health care, food and education, and long-term chronic food insecurity, as one of toughest humanitarian challenges to be faced. WFP programmes in Swaziland and the Caprivi region of north-eastern Namibia are being implemented in environments with some of the highest prevalence of HIV/AIDS in the world (42.6% in Swaziland, 40% in Namibia). One of the main challenges facing agencies in the region is how to address the ever-increasing numbers of Orphans and Vulnerable Children (OVCs). The scale of response needs to be huge. A field article from Namibia describes how the WFP and the Ministry of Gender, Equality and Child Welfare are working together to target 111,000 OVCs, linking the WFP targeted food distribution to OVCs with the government grant scheme. Programmes also need to be 'holistic' and integrate a number of sectoral needs for what is effectively a generation of children whose parents and mentors are no longer around and for whom chronic food insecurity is a long-term reality. The FAO-led Junior Farmer Field Life Schools (JFFLS) approach aims to comprehensively provide for the needs of OVCs and has been well received. Experiences of this approach in Namibia and Swaziland are described by Kiwan Cato and Hlengiwe Nsibandze in a field article, along with observations by the ENN during a WFP assisted field trip in Namibia.

Botswana features significantly in our regional coverage of Southern Africa. A research piece by Siddharth Krishnaswamy studies the impact of HIV on Botswana's development and evaluates government policy. The country has the second highest HIV prevalence rates in the world (37.3%) yet is also one of the biggest spenders on health and HIV prevention in Southern Africa. Although on most development indicators Botswana has made progress, adult health has declined - between 1995 and 2002 total life expectancy fell by 36%. The author suggest that Botswana's HIV problem and its resulting impact on development is not due to lack of commitment or action on the government's part, but results from crucial delays made in making and implementing these commitments.

Experiences of HIV/AIDS and infant feeding in the region are illuminating in terms of highlighting the challenges ahead. Two research pieces on Prevention of Mother to Child Transmission (PMTCT) programming in Botswana illustrate just how vulnerable infants who are not breastfed are in resource-limited settings. In the MASHI study from Botswana, infants who were breastfed had a higher HIV transmission rate but a lower mortality rate at 7 months than infants who were formula fed. Both feeding strategies had comparable HIV-free survival at 18 months. The risks of not breastfeeding were critically exposed when flooding in early 2006 contaminated water supplies in Botswana and led to an overwhelming increase in morbidity and infant deaths. In three districts alone, the under fives mortality rate was four times the historical rate. A Centres for Disease Classification (CDC) investigation found that infants who were not breastfed were 50 times more likely to be admitted for diarrhoea. Furthermore, it was not only infants of HIV-positive mothers who were affected, since one-fifth of infants of mothers of unknown HIV status/HIV negative had been weaned from the breast before the age of six months.

The implications of inappropriate infant feeding choice for both HIV transmission and HIV-free survival are the topic of a third research piece by Tanya Doherty et al from South Africa. An observational study on infant feeding intention was carried out in three sites in South Africa, with baseline infant mortality rates ranging from 30 – 99/1000 live births. Such levels would not be out of place in many emergency contexts. The study found that inadequate counselling led to both inappropriate choices to breastfeed and to formula feed. Inappropriate formula feeders had a three times greater risk of HIV transmission or death compared to women who appropriately chose to formula feed. The infant feeding choices and practices led to much higher than expected rates of late HIV transmission in two of the three sites.

Moving away from Southern Africa but keeping to the infant feeding theme, a third field article by Mary Corbett and Ali Maclaine (SC UK) details the widespread violations of the International Code of Marketing of Breastmilk Substitutes (the Code) and weak implementation of the Operational Guidance on Infant and Young Child Feeding in Indonesia and Lebanon. The SC UK experiences have also been shared at a recent international strategy meeting on infant feeding in emergencies (IFE) hosted by the ENN in Oxford and summarised in this issue. Attended by sixty delegates from around the world, the purpose of this strategy meeting, called by the IFE Core Group, was to identify key constraints to appropriate infant feeding in emergencies and steps to address these. New and compelling evidence from Indonesia presented at the meeting showed how donations of infant formula significantly increased formula milk consumption in under two year olds, that was associated with a significant rise in diarrhoea. More positively, examples from Indonesia and Dadaab, Kenya showed that breastfeeding counselling can improve feeding practices in emergencies.

Coupled with the Southern Africa PMTCT experiences, there is now accumulating evidence demonstrating the risks of not breastfeeding in emergency contexts. Yet, breastfeeding support as an early emergency intervention still does not feature on the response radar. Artificially fed infants fare little better, at best receiving inconsistent, and poorly monitored supplies of infant formula. So how can we move this forward? The IFE Meeting participants produced firm, practical action points. Good turn out at the meeting showed how concern about IFE has certainly grown in the last six years. ENN accepted the invitation to join the UNICEF led Inter-Agency Standing Committee (IASC) nutrition cluster to represent the IFE Core Group and increase the profile of IFE in this forum. But there is still a long way to go. Donors were conspicuous by their absence at the Oxford meeting – out of 22 invited, only one attended. Without greater commitment from all key actors we are unlikely to see significant improvements any time soon in the way infants are supported during humanitarian crises.

Non-IFE or HIV related topics covered in this issue of Field Exchange include a field article by Mary Corbett, which describes the use of 'multi-storey' gardens in refugee Dadaab and Kakuma refugees camps in western Kenya. Using little more than tin cans, rocks and cereal bags, refugees have been able to grow vegetables all year round with limited amounts of water. As a result, dietary quality has significantly improved. There is also a research piece about the experience of using cash for work programming in conflict affected Somalia. The article seems to show that cash can be used effectively as a resource transfer in conflict situations. Finally, a summary of a the Ethiopian Child Survival Survey in 2004, which examined the impact of the 2002/3 drought on mortality, shows that although most mortality occurred in drought affected areas, the mortality was principally a result of chronic factors rather than acute food shortages. The authors concluded that intervention impact on mortality would have been greater if the focus of interventions had been more on water provision and livelihoods, e.g. livestock ownership, rather than provision of food aid.

As you will see there are lots of new experiences to mull over in this issue of Field Exchange. Please keep your experiences from the field coming.

Enjoy!

Marie McGrath
Jeremy Shoham

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

M Corbett, Indonesia, 2006

Women washing utensils by the well in an earthquake destroyed village

Infant Feeding in Emergencies:
Experiences from Indonesia and Lebanon

By Ali Maclaine and Mary Corbett

Ali Maclaine has a MSc in Human Nutrition from the London School of Hygiene and Tropical Medicine. She has been involved in infant feeding and International Code issues since the mid 1990s. As well as consultancy work, she is a lactation counsellor.

Ali would like to thank all individuals and agencies in Lebanon that provided information but especially ACF and the Lebanese Association for Early Childhood Development for their help and support.

Mary Corbett is an independent food security and nutrition consultant working on short contracts with NGOs, UN agencies and donors in Africa and Asia mainly. She has been involved in IFE issues since the nineties, including development of IFE Core Group training materials (Module 2).

Mary extends thanks to the Save the Children team in Jakarta and Yogyakarta Province and to UNICEF for sharing their initial survey findings.

On the 27th May 2006 a strong earthquake had a devastating impact on two provinces on Java Island in Indonesia killing 5,778 people. Major infrastructural damage left 3.2 million people affected. One third of them had their homes completely destroyed[1]. Water and sanitation structures were particularly heavily affected. The deterioration in living conditions and in the general environment posed a considerable threat to the population, in particular for infants and young children.

On 12th July 2006, a major military offensive started between Hizbollah combatants and Israeli troops resulting in heavy bombing of southern Beirut and towns in East and South Lebanon, followed by an Israeli ground assault. During the conflict up to 900,000 people were internally displaced (IDP)[2] – a quarter of the population – fleeing further north to shelter in schools or in the homes of relatives or friends. A ceasefire was declared on 14th August and most of the IDPs immediately returned to their home areas. However, over 30,000 houses had been completely or partially destroyed so that many returnees had to live in the ruins of their houses, stay with friends/relatives, or rent rooms. In the affected villages, there was a lack of water (quantity and quality), poor sanitation (the sewerage system had been destroyed and there was uncollected rubbish), no electricity, lack of cooking gas and cooking facilities.

SC UK and IFE

Save the Children (SC) has played a significant role in infant feeding since the mid-1990s, as an establishing member of the Interagency Group on Breastfeeding Monitoring that conducted research[3] on compliance to the International Code of the Marketing of Breastmilk Substitutes (see box), and more recently in Code advocacy work. Field research[4] to assess the impact of the humanitarian intervention on infant feeding during the 1999 Kosovo Crisis by SC UK and the Institute of Child Health (London) was a key influence in the development of the Operational Guidance on Infant and Young Child Feeding in Emergencies[5] (Ops Guidance) first produced in 2001.

Due to SC's interest, expertise and knowledge of the issues involved, following the crises in Indonesia and Lebanon, a consultant was sent to each country to monitor compliance with the Code and to develop programmes to ensure that the best infant feeding practices were being followed. Mary Corbett visited Indonesia and Ali Maclaine visited Lebanon.

The feeding practice context

Pre-crisis infant feeding practices in both contexts were less than ideal[6]. In Java, exclusive breastfeeding rates were low, with only 5% of mothers exclusively breastfeeding by five months[7]. Local sources described introduction of complementary foods, in particular commercial porridge, as early as two months of age, often under pressure from grand-

[1] CRED Crunch, CRED Brussels, October 2006

[2] Lebanon Crisis 2006. Interim Report. Humanitarian Response in Lebanon. 12 July to 30 Aug 2006. United Nations

[3] Detailed in the report, Cracking the Code

[4] Meeting the nutritional needs of infants during emergencies: recent experiences & dilemmas. Report of an International Workshop, Institute of Child Health, London, November 1999. http://www.ennonline.net/docs/IFEWorkshopReport1999.pdf

[5] Operational Guidance for Emergency Relief Staff and Programme Managers on Infant and Young Child Feeding in Emergencies, Version 2.0. IFE Core Group, May 2006. Available online at www.ennonline.net and in print from ENN.

[6] WHO guidelines recommend exclusive breastfeeding (where an infant receives breastmilk and essential medicines only) for six months, with introduction of appropriate complementary foods at six months of age and continued breastfeeding for two years and beyond.

[7] National Health and Nutrition Surveillance System (NSS), Helen Keller International and Ministry of Indonesia, 2002

The Code and the Operational Guidance

The aim of the *International Code of the Marketing of Breastmilk Substitutes* is to protect and promote breastfeeding, and to ensure the proper use of breastmilk substitutes, when they are necessary, on the basis of adequate information and through appropriate marketing and distribution.

The Code was endorsed by the World Health Assembly (WHA) in 1981. Subsequent resolutions have the same authority and together with the original are referred to as 'the Code'.

The Code sets out the responsibilities of the different actors including the infant food industry, health workers, national governments and concerned organisations. The Code is a minimum requirement to be enacted in its entirety by all UN member states.

The Code can be downloaded from http://www.ibfan.org/English/resource/who/fullcode.html

The Operational Guidance for Emergency Relief Staff and Programme Managers on Infant and Young Child Feeding in Emergencies (Ops Guidance) provides concise, practical (but non technical) guidance on how to ensure appropriate infant and young child feeding in emergencies.

It was first produced in 2001 by an Interagency working group on infant feeding in emergencies, and recently updated by the IFE Core Group (version 2.0. May 2006).

The Ops Guidance is available in print from ENN or can be downloaded from http://www.ennonline.net
See also p.9 this issue.

This mother had exclusively breastfed all her children, including this baby whom she breastfed throughout the war in Lebanon.

A Macclaine/SCUK, Lebanon 2006

mothers. However, many Indonesian mothers did continue to breastfeed their young children until two years of age. In general, mothers reported that they did not use formula milks as they were too expensive, but did if their financial means improved.

In Lebanon, national pre-crisis figures estimated that 27% of mothers exclusively breastfed for 4 months[8], however any regional variations were hard to establish. In a SC Alliance assessment involving 20 mothers, 42.6% of mothers reported that their older infants had been exclusively or predominantly[9] breastfed. (A more indepth assessment was not possible due to security and access constraints). An Action Contre La Faim (ACF) assessment determined that 52% of infants <6 months were exclusively breastfed pre-crisis. These figures are hard to interpret due to variation in how indicators were measured, different sample sizes and potential recall bias amongst mothers, as well as possible regional versus national differences. Probably more telling, local sources described how mixed feeding (breastfeed and formula milk) was increasingly common particularly amongst young mothers either from birth or after a couple of months, but most continued to breastfeed for a year or more. The perceived 'ease' of bottle-feeding, the 'glamour' attached to it, the resultant 'fatter' babies and encouraging advice from health care staff were the reasons given for opting for infant formula feeding. Feeding bottles were commonly used to feed infant formula, water and diluted complementary porridges. Bottles were preferred to cups well into childhood. Bottled water was used for formula milk preparation, which carries risks due to the high solute levels (especially sodium), in some bottled waters.

Violations of the Code and Ops Guidance

During the early humanitarian response in Indonesia and Lebanon, relief goods flooded the affected area including potable bottled water, and food aid including infant formulas and commercial infant complementary foods. In Java, all types of milk formulas for different age groups, commercial porridges, soft drinks for older children, and snack foods were received in the aid response. Villagers did not always know where these gifts came from. Sources identified by community leaders and health workers in Java included private donations from well wishers and adjacent communities, and donations from organisations, institutions, and companies. Some infant foods were channelled through the Ministry of Health (MoH) at district and provincial levels and delivered to the communities through the community health workers and midwives. Numerous violations of the Code were documented by UNICEF that included violations by manufacturers, foreign governments and international NGOs (see box 1).

In Lebanon, field visits also identified many violations of the Code and violations[10] of the Ops Guidance (see also box 1). Contrary to the Ops Guidance, there was distribution of commercial baby foods, distribution of bottles and teats by local and international NGOs, and distribution of dried milk powder without pre-mixing. Of serious concern were instances where mothers were being provided with the wrong type of formula for the age of her infant (see case study 2).

Failure to undertake certain support activities also constitute violations of the Code and Ops Guidance. For example, in Lebanon, local and international NGOs that distributed infant formula did not undertake training on safe preparation of formula, home follow up, and regular monitoring of infant weights, as required under Article 6.5 of the Code and the Ops Guidance 6.2.3. There were no systems or programmes designed to protect, promote and support breastfeeding (Violation 1994 and Ops Guidance 5.2.3) and infant formula was distributed without an undertaking that the supplies would continue for as long as the infant concerned needed it (Violation Article 6.7 and Ops Guidance 6.3.5)

None of the NGO staff questioned were aware of the Ops Guidance and only one was aware of the Code. None of the international staff questioned were aware if their organisation had a policy on infant feeding in emergencies or what that policy was.

Impact

In Lebanon, a rapid (purposive) survey of 20 mothers by the SC Alliance found that the conflict had negatively affected breastfeeding practices: five mothers stopped breastfeeding completely, and eight mothers started mixed feeding and/or reduced breastfeeding. The main reasons given for the change were stress and lack of quality food reducing their breastmilk. Other reasons included being too busy, recommendations from medical staff when on medication for stress, embarrassment of breastfeeding in public and refusal of the infant. This trend of a change in feeding habits was confirmed by other mothers, interviews with doctors, clinic nurses, pharmacies (exclusive sale of infant formula) and findings from other NGOs. While mothers did not articulate the lack of breastfeeding promotion or the increased availability of formula as a reason to stop lactating, the authors feel that this was another significant factor. In Indonesia, due to the lack of control of distribution of breastmilk substitute products in Java, rapid assessments were indicating that some mothers were converting to formula feeding post-earthquake[12].

[8] The State of the World's Children 2006 – Excluded and Invisible. UNICEF.

[9] Predominant breastfeeding is where an infant receives only breastmilk and water-based fluids. Exclusive breastfeeding is where an infant receives only breastmilk and essential medicines.

[10] The term 'violation' of the Ops Guidance was used by the assessment team in this context to demonstrate failure to adhere to or implement the recommendations.

[11] Situation update. Infant and Young Chid feeding in Yogyakarta and Central Java, June 2006, UNICEF.

[12] Breastfeeding Assessment Report, Java – Indonesia – June 2006, ACF

Box 1 Violations of the Code and Ops Guidance in Indonesia and Lebanon

M Corbett, Indonesia, 2006

A box of donated 'baby' foods that a village woman had received in Java

By companies:

- In Yogyakarta Province, Java donations had been received by the Provincial Health Office directly from the manufacturer (a total of 30 cartons, with 12 cans per carton). (*Violation Code Article 5.2*).

By foreign governments:

- In Java, a foreign government donated six cartons (12 tins per carton) of formula for 6-12 month olds, labelled only in a foreign language (*Violation Code Article 9.2 and Ops Guidance 6.3.6. Also possible violation of 9.4 although not possible to ascertain at the time as label in a foreign language*).
- In Java, as of 15th June, the Bantul emergency co-ordinator had received donations from local companies, private organisations and other regional provinces:
  - 265 cartons and 1,567 packs of infant formula
  - 945 boxes, 260 bottles, 180 cartons and 1240 cans of powdered milk
- Foreign governments donated formula to the Lebanese government's aid organisation the Higher Relief Commission (HRC) that was not in Arabic. (*Violation Code Article 9.2 and Ops Guidance 6.3.6*).

By NGOs:

- In the sub-district Jedis in Bantul, Indonesia, an international NGO distributed 7,200 boxes each of porridge, biscuits and formula through the local health cadres. (*Violation Code WHA 47.5(1994) and Violation Ops Guidance 6.2.1 and 6.2.3*)
- In Pundong sub-district, Indonesia, boxes of food supplies including infant formula for 0-6 months were widely distributed to communities, even families with no young children (as part of the general ration). (*Violation Code Article 6.6 and Violation Ops Guidance 6.2.1 and 6.2.3*)
- In Jedis, infant formula was distributed as incentive/reward for partaking in a measles & tetanus vaccination campaign[11]. (*Violation Code Article 6.2*).
- In Lebanon, one INGO distributed 1500 'baby kits' including formula and bottles to hospitals, municipalities (local councils) and directly to IDP households. Postconflict, the same INGO gave each village muncipality 'village kits' containing infant formula (25 boxes x 24 cans) and baby food (80 units) amongst other items (*Violation Code Article 6.1 and Violation Ops Guidance 6.4.1 and 6.4.3*)
- Formula distributed by one local NGO vio lated the labeling requirements of the Code in that they idealised the BMS and did not mention the use of the advice of a health worker (see picture example 1). (*Violation Code Article 9.2 and Ops Guidance 6.3.6*).
- Many health workers distributed single tins or samples of formula milk to mothers. (*Violation Code Article 7.7*).
- Tins of formula milk donated and imported by NGOs were in a foreign language (see picture example 2). (*Violation Code Article 9.2 and Ops Guidance 6.3.6*).

A Macclaine/SCUK, Lebanon 2006

Example 2. The labels are in English and/or Greek, not Arabic.

Major issues

The under two year old population group is at highest risk of malnutrition, morbidity and mortality and their vulnerability increases dramatically in a disaster affected environment. However during an emergency, they become a silent and often invisible minority, particularly small infants who are kept indoors and may be rarely seen. This group is rarely assessed in early needs assessment which we consider a major oversight within the emergency humanitarian sector.

Infant feeding practices must be addressed at the earliest possible stages of an emergency to promote and support appropriate practices in often very difficult circumstances. Acting to prevent violations of the Code will help achieve this. Decisions to intervene should not depend on first seeing rises in acute malnutrition or be postponed until everything has 'settled down'.

A co-ordinated response to IFE is essential. In both Indonesia and Lebanon, UNICEF was the designated co-ordinating agency on IFE, within the UN interagency standing committee (IASC) cluster approach to humanitarian response. In Indonesia, UNICEF's leadership immediately after the earthquake was significantly stronger than their leadership in Lebanon and this made a considerable difference to how IFE issues were managed on the ground.

As an agency, these experiences have highlighted to Save the Children that we need to work to improve awareness and capacity internally within our own organisation. Within the SC Alliance there was initially a resistance to even look at infant feeding issues in Lebanon and Indonesia. It then took much work by the SC nutrition advisors to convince programme staff of the need to address infant feeding issues in the initial weeks.

In both crises, there were any number of ways in which BMS and other items were distributed and the Code violated. The increasing trend for INGOs to work with national partners creates the potential for the INGO to distance itself from direct accountability for its actions. However, we would argue that accountability for violations of the Code, whether manifesting from financial contributions or donations of goods, must reside both with the donor agency and the implementing agency.

Monitoring for Code violations in the field by both consultants positively helped to raise the profile of IFE in the field. Documenting violations has raised the issue of how we, as an agency, should constructively deal with the Code violations we have observed by donors, governments, and NGOs, in order to promote agency and sectoral learning and to prevent violations in future emergencies.

Recommendations

UNICEF, as the IASC nutrition cluster lead, needs to take the lead on the ground in supporting infant and young child feeding best practices, monitoring adherence to the Code, supporting implementation of the Ops Guidance and building the capacity of their field emergency staff in emergencies. If UNICEF cannot take on these responsibilities in a given emergency, then they should relinquish these early in a crisis to another agency that can.

Humanitarian agencies involved in health and nutrition in emergencies should assess infant feeding practices in the initial phase of an emergency and develop appropriate programmes around identified needs. Linked with this, there is a need for a standardised assessment tool for IFE for different stakeholders e.g. mothers, health workers, NGOs, local authorities.

An advocacy and awareness campaign on the Code and the Ops Guidance is required for NGOs, particularly those who tend to be on the ground early during emergencies. The Code and Ops Guidance should be part of the orientation package for operational, logistic and technical staff that could, for example, be presented as an extension of the IFE component of the Sphere standards.

Donor NGOs (whether funding or donating BMS) must maintain their responsibilities and moral obligations to ensure that the Code and Ops Guidance are followed by their partner organisations.

The IFE training modules developed by the IFE Core Group should include an extra section on IFE adapted to developed countries or in cases where the majority of infants are formula or bottle fed pre-crisis. It should include an explanation about why infant feeding issues and the promotion of breastfeeding is essential in an emergency situation rather than waiting for the development phase of the programming.

Humanitarian agencies and NGOs need to develop or endorse a policy on infant feeding in emergencies *(Key point 2 Ops Guidance)*. When partnering with national or community-based organisations, agencies should advocate for and monitor adherence to the Code and Ops Guidance.

SC will commit to addressing internal communication/advocacy and work towards improving how we, as an agency, respond to support IFE. It is only by mainstreaming infant and young child nutrition in government and humanitarian agencies' responses that we can hope to offer best practices to this very vulnerable group during emergencies.

For further information, contact: Frances Mason, Nutrition Advisor, SC UK, email: F.Mason@savethechildren.org.uk

Case Study 1

Java: Rendika, a healthy 4.4kg baby boy was born in one of the villages about 3 weeks before the earthquake in Java. The mother had two older children aged 9 and 15 years. She was exclusively breastfeeding the baby until after the earthquake. In the previous 24 hours, she had given her six week old infant breast-milk, formula milk, porridge and some biscuit.

Although the child looked healthy and well nourished the mother was concerned that her own breastmilk was not good as her own diet had deteriorated since the earthquake. She thought she did not have sufficient milk for the needs of her baby. This was the main reason she was giving the extra donated foods to the baby.

Case Study 2

Lebanon: This baby pictured is two and a half months old. After birth, her mother breastfed her for 10 days but then gave up due to lack of breastmilk, so she was already only formula feeding before the conflict. While she was in an IDP school, she was given (by a local NGO) a tin of Fabimilk 2 (she should have been given 1 as the child was too young for 2) – as she read the tin she didn't give it to her baby. The tin also only had a month to go before it expired. She was also donated a bottle and normal powdered milk.

The baby had had diarrhoea in the past 7 days and was unwell.

A Macclaine/SCUK, Lebanon 2006

Case Study 3

Lebanon: Fatima Balhass is a 29 year old mother of 6 children. Married at 14 years she has lived in Saddiqine her whole life. She exclusively breastfed all of her previous five children for 5 months. However, her latest boy Abed Al Hussein (pictured), now 3 months old, was born just before the conflict started on 12th July 2006. They fled to Saida and stayed in an IDP camp in a school run by the Hariri foundation. She found that when she put her boy to her breast her milk had suddenly stopped. She did not know what to do, or who to get advice from, about breastfeeding. By chance, hidden amongst other items she had brought, she found the tin of formula given to her as a present by the hospital when the baby was born so she used that initially as well as other formula that was donated in the school. However, the baby became sick with diarrhoea and vomiting and so she had to buy special formula for him. She has not breastfed since. Since the end of the conflict she returned back to Saddiqine only to find her house destroyed, so she is now renting in a nearby village. She buys water and has a little gas to sterilise the feeding bottle. The baby is often sick. She says that she liked breastfeeding and would like to start again but did not know that this was possible, never mind how to do it.

A Macclaine/SCUK, Lebanon 2006

Improving impact evaluations

Summary of published research[1]

The ENN has long-championed the need for more evidence based learning in food and nutrition emergency programming and in particular more rigorous impact studies. The report summarised below by the Centre for Global Development (CFGD) sets out a broad agenda for impact assessment across all areas of social development and proposes institutional mechanisms for bringing this about (Ed)

In 2004, the Centre for Global Development (CFGD) convened the Evaluation Gap Working Group in order to find out why rigorous impact assessment of social development programmes are relatively rare and to develop proposals to stimulate more and better impact evaluations.

Many governments and organisations are taking initiatives to improve the evidence base in social development policy but investment is still insufficient while the quality of evaluation studies is mixed. While these institutions do well in their normal data collection and evaluations tasks related to monitoring inputs, improving operations, and assessing performance) they largely fail to build knowledge that require studies outside normal budget and planning cycles. Lacking are impact studies that show the intervention has impacted the condition that the programme sought to alter, e.g. health status, income generation, etc. While the knowledge gained from rigorous impact studies is in part a public good, the cost of producing such studies are borne by individual institutions or agencies.

Even when impact evaluations are commissioned, they frequently fail to yield useful information because they do not use rigorous methods or data. A systematic review of UNICEF estimated that 15% of all its reports included impact assessments but noted that many were unable to properly assess impact because of methodological shortcomings. Similarly a review of 127 studies of 258 community health financing programmes found that only two studies were able to derive robust conclusions about impact.

The CFGD report concluded that there are too few incentives to conduct good impact evaluations and too many technical, bureaucratic and political obstacles. However, tolerance for evaluation gaps is waning and donor countries are increasingly concerned that international financial assistance should generate results.

Concern about the evaluation gap is widespread as demonstrated by the many initiatives underway. However progress will be slow and investment insufficient without greater effort. The Evaluation Gap Working Group recommends that the full range of stakeholders should both reinforce existing initiatives and collaborate on a new set of actions to promote more and better impact evaluations.

Governments and agencies should reinforce efforts to generate and apply knowledge from impact evaluations of social programmes. This includes strengthening overall monitoring and evaluation systems; dedicating resources to impact evaluation; ensuring collaboration between policymakers, project managers, and evaluations experts; improving standards for evidence; facilitating access to knowledge; and building capacity in developing countries to conduct rigours evaluations.

Progress is likely to be much faster if some countries and agencies collectively commit to increase the number of evaluations and adhere to high standards of quality. In one form of commitment, similar to a contract, each organisation would agree to do its part, while another form would see organisations support a common infrastructure to carry out joint functions. The working group identified the following characteristics of a successful new initiative:

- Complementarity to existing initiatives
- Strategic in its choice of topics and studies
- Opportunistic in its approach to supporting good impact studies
- Linked directly and regularly engaged with policymakers, governments and agencies
- Involving collective, voluntary commitment by a set of governments and public and private agencies to conduct their own studies or contribute funds for contracting such studies by others
- Committed to independence, credibility and high standards of evidence

The Evaluation Gap Working Group developed consensus that some entity ('council') – whether a committee, standards-based network secretariat or other organisation – is needed as a focal point for leading such an initiative. Council functions were identified as follows;

- To establish quality standards for rigorous evaluations
- To administer a standards based review process for evaluation designs and completed studies to help distinguish between stronger and weaker forms of evidence.
- To identify priority topics around which governments and agencies can cluster evaluations and that will also enable efforts to focus on the most relevant programmes for policymakers.
- To provide grants for impact evaluation design, where the council may catalyse impact evaluations that otherwise would not be undertaken or, in other cases, increase the likelihood that funded evaluations generate reliable and valid conclusions.

Other council functions might include;

- organising and disseminating information.
- building capacity to produce, interpret and use knowledge by encouraging links between researchers, agency staff and project managers.
- creating a directory of researchers for use by members and actively encouraging the use of qualified experts.
- undertaking communication activities and public education programmes to explain benefits and uses of impact evaluation.
- administering funds on behalf of members.

Some Working Group members were concerned that such a fund would divert financial resources from current impact evaluation efforts. Others argued that giving the council adequate funds to commission impact evaluations was essential to address the central concerns set out in the analysis.

The report also discusses how to constitute the council to best provide collectively beneficial services. Suggestions included an interagency committee, a network, secretariat or independent organisation. The authors recognise that the choice will depend on assessing the relevant tradeoffs and the institutional design should ultimately be guided by the structure that will best fulfil a range of aims, including high technical standards, independence and legitimacy, operational efficiency and international leadership.

When Will We Ever Learn: Improving Lives through Impact Evaluation. Policy Recommendations from the CGD Evaluation Gap Working Group, May 2006
http://www.cgdev.org/content/calendar/detail/7829/

Ethical research in conflict situations

Summary of published research[1]

A recent article in 'Global Public Health' asserts that issues of power and consent, confidentiality, risks to researchers, and potential harm to participants, may arise when working with different cultures and within environments marked by violence and insecurity. Difficulty resolving these dilemmas may paralyse ethics committees, may fail to give the guidance sought by researchers, and will not help populations who are among the world's most vulnerable. Even where efforts are made to respond to ethical guidelines and to improve practice, considerable impediments are present in many developing countries, including lack of formal ethical review structures in unstable settings, lack of required skills, limited political and institutional recognition of ethical issues, competing interests, and limitations in clinical and research practice.

In conflict settings, these limitations are more marked and the responsibilities of the researcher for ethical practice are greater, but the mechanisms for oversight are weaker. Moreover, the constant focus on vulnerabilities and problems, and the often almost total lack of recognition of strengths and resilience, can further disempower already exploited groups and individuals. The capacity of refugees and communities in conflict to take an active role in the research process is seldom acknowledged, and undermines the potential for more innovative research that can help generate the evidence for better policy and practice.

The full article is available at: http://www.tandf.co.uk/journals/titles/17441692.asp and clicking on the link to issue 3.

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[1] Zwi A et al (2006). Placing ethics in the centre: Negotiating new spaces for ethical research in conflict situations. Global Public Health, vol 1, No 3, pp 264-277, October 2006.

Addressing staff turnover in humanitarian organisations

Summary of published research[1]

The ENN is frequently made aware of the challenges agencies face due to staff turnover in the emergency food and nutrition sector. As trained and highly skilled international and local staff move between agencies or leave the sector, invaluable expertise and experience is lost and programmes suffer. It is easy to oversimplify the causes of high staff turnover and therefore propose simplistic solutions. The paper summarised below contributes to a more nuanced understanding of the issues around staff turnover. (Ed)

Over the past 10 years, staff turnover has become a major concern for humanitarian agencies. It has sometimes been presented as a reality that humanitarian agencies have to live with, but it has also been blamed for reducing the effectiveness of programmes as a result of discontinuity in staffing and loss of institutional memory. Yet, no one has attempted an in-depth study offering a detailed consideration of the causes and consequences of staff turnover in the humanitarian sector. A paper produced by the Overseas Development Institute (ODI) aims to fill this gap by providing guidance and ideas for further action at agency and sector level. It is based on research by People in Aid and the Emergency Capacity Building Project and on over 200 interviews with aid workers, humanitarian organisations, think-tanks and donor agencies.

Staff turnover can range from individuals leaving an organisation during an assignment or at the end of a contract, to planned rotation of international staff between different locations. The factors influencing turnover are diverse and the consequences can be both positive and negative. A certain level of turnover and mobility between working locations is both necessary and healthy. Managed turnover helps to keep the workforce fresh and ensures opportunities for rising talent. There is also some evidence that employees and employers gain from the variety of experience that is provided through temporary assignments within the context of a longer-term career. However, the negative consequences present organisations with considerable challenges and tackling the causes must be a priority for top and senior management. A number of important 'push' factors have been identified, including the nature and context of emergency work, the use of short-term contracts and ensuing job insecurity, the level of support and general quality of human resources (HR) systems, as well as constraints related to people's private lives. These factors appear to have more influence on turnover than 'pull' factors, i.e. those factors that draw employees towards another organisation.

The impact of turnover extends to the sector as a whole. At the individual level, humanitarian professionals are forced to carry the burden of high turnover among colleagues. At programme level, excessive management turnover creates considerable disruption, undermining quality, causing inefficiencies, weakening stakeholder relations and limiting organisational memory. Agencies can find themselves trapped in a perpetual cycle of hiring and deploying new staff, with the risk that avoidable mistakes are repeated and staff become disheartened or eventually quit. Agencies also suffer financial costs and loss of productivity each time an individual leaves a project and moves to a new one. For the sector as a whole, the current shortage of mid-level and senior field managers, which is to some extent related to excessive turnover, encourages unhealthy competition for international staff, even though the pool of local staff remains largely untapped for the development of senior managers. When staff turnover itself becomes one of the causes of turnover, then an investment to reverse the tide will have double value.

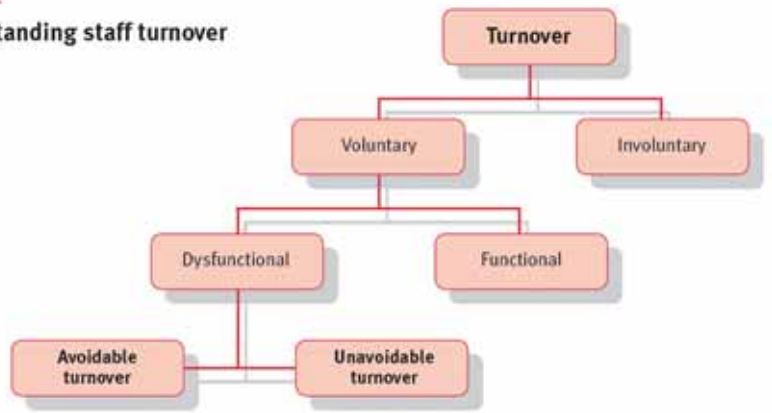
Retention strategies can simultaneously target different levels, as shown in Figure 1. The first level is the most basic, and is the only part that appears in the contract signed between employee and employer. The higher up the pyramid, the more unique the relationship between the organisation and its staff becomes, and the more difficult it is to compete with.

Figure 2 outlines the basic steps in defining a retention strategy. But no matter how successful such a strategy is, the question of learning and knowledge management remains. Figure 2 shows that increased awareness and situations analysis are the first steps in defining a retention strategy. Key questions include;

- Does the agency follow key indicators to keep a clear picture of its workforce and its evolution? Is it able to put a figure to the costs of staff turnover?
- If turnover is identified as a problem, has any action been taken?
- Is HR practice in the organisation the result of a carefully thought out strategy or are external elements guiding it?
- Does the agency have a strategy to recruit, develop and retain a workforce that is based not only on experience and technical skills but also on competencies that will privilege potential, resilience and people-management skills?
- Does the organisation have systems that make it easier for staff to become quickly operational, such as standardised operations manuals?
- Does the agency live up to its mission statement and values when it comes to taking care of and supporting its own staff?
- Is the agency committed to developing the skills of its international and national staff and providing them with opportunities to move both vertically and laterally within the organisation?
- Does the agency learn lessons by chance, or as the result of a conscious process to capture and transfer knowledge?

Figure 1

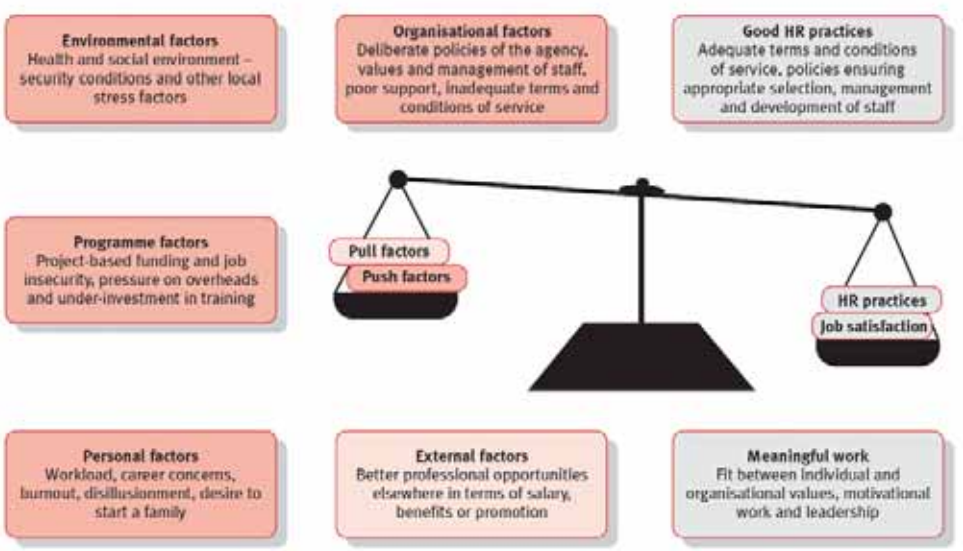
Understanding staff turnover



Source: Rodger Griffeth and Peter Hom, *Retaining Valued Employees* (Thousand Oaks, CA: Sage, 2001).

Figure 2

Factors behind staff turnover in the humanitarian sector



Source: Loquerico et al. HPN Network Paper, No 55, June 2006.

[1] Loquercio. D, Hammersley. M and Emmens. B (2006). Understanding and addressing staff turnover in humanitarian agencies. HPN Network Paper, No 55, June 2006

Responding to early warnings

Summary of published research[1]

R Cheke, 2005

Desert locust

An article on the failure of early warning systems (EWS) to elicit response cites recent experiences in Niger and southern Africa as cases in point. On 20th of October 2003, the Food and Agriculture Organisation (FAO) warned that desert locusts would cause damage in Niger and appealed for help. However, funds were not forthcoming until the plague was well underway and the FAO were still short of US $17 million of their needs in May 2004. The locust invasion, the biggest in 15 years, combined with an early end to the rainy season, caused poor harvests – worse than the annual hungry season and led directly to the famine that began in January 2005.

While FAO forecasts desert locust outbreaks, there are few EWSs for other pests. The UK Department for International Development (DFID) has sponsored three early warning systems across the Southern African Development Community (SADC) region:

- The Information Core for Southern African Migrant Pests is an internet-based system that provides information and early warning of several pests.
- Forecasting models for red-billed quelea birds (cereal crop pests) use satellite-derived rainfall estimates to show where conditions have become suitable for the birds to breed.
- Community-based forecasting for African armyworm (a cereal crop pest) relies on vil lagers counting moths from pheromone traps, collecting local rainfall data and running the information through simple rules to provide localised forecasts of moth out breaks.

In contrast to Niger, policymakers in Southern Africa do act against migrant pests and heed warnings, saving large quantities of crops. Estimates from Southern Africa suggest that current quelea control programmes save at least 100 million rand's worth of wheat crops each season.

The article suggests that there are several possible reasons as to why policymakers, donors and national governments seldom take serious notice of early warning systems:

- They have a 'seeing is believing' mentality and refuse to provide funds until they can see the problem. Political gains come by visibly helping in emergencies, but less so from prevention strategies where lives saved or economic gains are not immediately obvious.
- They have little or no scientific training and do not understand prevention strategies. There is a lack of scientists in key policy-making roles and, in the UK at least, in positions able to provide advice.

The new UN Central Emergency Response Fund promises to have funds available to facilitate fast delivery of coordinated donor aid to crisis areas. Time will tell as to what difference this makes.

See further information at the following links:

FAO Desert Locust alert, www.fao.org/ag/locusts/common/ecg/241_en_24019_en.htm

The SADC Quelea breeding forecast for Southern Africa, www-web.gre.ac.uk/directory/NRI/quel

Information Core for Southern African Migrant Pests, http://icosamp.ecoport.org

[1] Cheke. R (2006).Responding to early warnings. Id21 insights #61, April 2006, pp 8

R Cheke, 2005

Sorghum damaged by quelea

Is food aid effective?

Summary of published research[1]

A recent article by food aid guru Ed Clay sets out current thinking about the effectiveness of food aid. While some agencies and experts advocate increasing food aid because of high levels of poverty-related malnutrition and increasing frequency and scale of natural disasters and conflict situation, others argue that food aid distorts local markets by discouraging agricultural development and displacing trade.

Clay argues that any assessment of the impact of food aid must consider the different types of food aid and donor practices. For example, emergency food aid saves lives and limits nutritional stress in crises. However, tying aid can restrict what foods are available and late arrival frequently hampers post-crisis agricultural recovery. Clay asks whether tying food aid matters. Most food aid channelled through the World Food Programme (WFP) and non-governmental organisations (NGOs) come 'in kind' and is sourced in the donor country. This is tied aid. WFP and NGOs would prefer to receive cash (untied aid), which would allow them to buy food locally or in neighbouring countries as this provides more appropriate and timely food and is more likely to benefit the local community. Untied aid is also cheaper. A DAC study by OECD in 2002 found that;

- Tied aid cost at least 50 percent more than food aid acquired locally.
- Tied aid cost 33 percent more than imports from other developing countries.
- If donors untie their food aid completely, approximately US$750 million could be released for further aid.

Around 90% of global food aid was tied in 2002. This proportion fell to 74% in 2004 but remains at over 99% for the USA who favour tied food aid because it supports their own farmers, food processors and USA-registered shipping. In contrast, European donors buy most of their food aid in developing countries.

During 2004 to 2005, Australia, Canada, Denmark, and France moved to further untie their food aid. USA aid administrators are trying to change the law so the US government can finance some developing country food purchases for distribution in crisis situations. However, Congress has so far rejected such proposals. As the biggest contributor of food aid to the WFP and NGOs, it is vital that the USA achieves this policy change.

Clay also asserts that food-based longer-term programmes, including so-called protracted relief and development projects, to reduce the impact of shocks are overlapping categories and therefore are an area of ambiguity. The decision to fund local purchase or imported food depends on risks of distorting the local economy, whether the transfer of food is efficient and whether other poverty reduction objectives are addressed. Monetisation, where tied imports are sold to finance development projects, is seen as a useful additional resource by some USA-based NGOs, but is controversial because of the high risk of distorting local and regional markets.

Programme food aid for budgetary support to governments has declined with the reduction in stored surpluses, especially from the USA. Assessments have highlighted ineffectiveness, especially in promoting national economic development, poor transfer efficiency and likely trade displacement. Furthermore, food aid is becoming more volatile and pro-cyclical (least available when international prices are high). The increasing priority given to humanitarian crises means that some countries are excluded or marginalised.

Clay asks how food aid can provide effective support to longer-term poverty reduction and other development objectives. He answers the question thus; "financial aid or cash is almost always the most effective and efficient way of funding either food distribution or providing budgetary support. A context-specific justification should always be provided for using food aid in preference to financial aid".

[1] Clay. E (2006). Is food aid effective? Id21 insights, vol 61, April 2006, pp 6

Chronic vulnerability in Niger

Summary of published research[1]

Niger has suffered from chronic malnutrition, rooted in structural vulnerabilities, for several decades. According to a recent article in Humanitarian Exchange, the basic causes of malnutrition in Niger relate to lack of availability of human, structural and financial resources, inadequate formal and informal infrastructure, and national and regional government policies. The underlying causes acting at household and community level encompass care practices, social and cultural expectations, health services and environment and food access and availability. The authors state that UNICEF has come to learn important lessons about nutritional problems in Niger. These are set out below.

Early warning needs to be strengthened, particularly with regard to nutritional information. This won't be easy due to a lack of in-country capacity to collect, analyse and interpret data and inability to raise nutrition as a key priority with government, donors and partner agencies. However, from 2006 UNICEF plans to undertake twice-yearly national nutritional surveys.

There is also a need for a broader framework for understanding malnutrition. Past analysis has focused on production and availability of grain staples at the expense of other indicators such as changes in import and export regulations governing grain, market prices and access to food and malnutrition. Other factors like lack of access to health services, cultural practices and gender inequality were inadequately incorporated into national vulnerability analysis and subsequent programming.

A broader regional analysis of the problem of malnutrition is critical. UNICEF has developed an interagency proposal for West and Central Africa that focuses on addressing both acute and chronic malnutrition and involves;

- strengthening early warning systems, including nutritional surveillance systems
- developing a regional approach to the treatment of severe and moderate malnutrition using a decentralised community-based approach
- establishing adequate supplies and stockpiles of emergency commodities,
- addressing infant and young child feeding, and
- strengthening national nutrition policies to reflect emergency nutrition and other child survival activities.

Separating humanitarian and developmental efforts potentially sets up a false dichotomy between normality and crisis, obscuring the fact that many people live perpetually close to the edge of crisis. UNICEF and partners should recognise that earlier interventions, such as strengthening people's livelihoods, developing national capacity for emergency response and advocating for improved access to social services and markets are critical interventions in countries where chronic vulnerability exists.

In August 2005, a strategy to address the problem of acute malnutrition in the context of chronic vulnerability was implemented. With regional and HQ support, the Niger country office assumed a greater technical, leadership and coordination function in nutrition through its support to the Ministry of Public Health, and in cooperation with NGOs. UNICEF now has technical nutrition staff based in Niger as well as in the regional office to support strategic changes at the policy and programme levels.

Existing UN coordination mechanisms in Niger, such as the UN country team, were slow to acknowledge the severity of the crisis in 2005. Close collaboration and coordination between the different UN and other agencies in Niger is critical, especially in the area of nutrition. An adequate collaborative UN response in a nutritional crisis needs well defined agency responsibilities (UNICEF for surveillance, treatment of malnutrition, infant feeding and Vitamin A; WFP for food aid; FAO for food security; WHO for health). UNICEF, as the lead UN agency for nutrition, needs to ensure that policies and programme priorities are based on a framework that engages and holds accountable each of these agencies for effectively addressing and preventing malnutrition in emergencies.

UNICEF needs to establish a long-term approach to strengthening emergency nutrition capacity within the Niger government. This will require more than intermittent training workshops, and will need to be sustained over a long period. UNICEF should support and be accountable to, specific capacity development results and outcomes within Niger's government and other national structures.

During the recent emergency, relatively greater emphasis was placed on short-term advocacy, rather than strategic policy advancement. UNICEF and its partners must work to ensure that rigorous, evidence based assessments are used to inform and develop a country-based advocacy strategy for immediate and long-term change. Evidence based advocacy in Niger is also required to raise the profile of nutrition in general; achieve greater cohesion between interventions addressing chronic and acute crises; win broader recognition of the various causes of malnutrition (not just food related); revise and change health policies that support more equitable health services; ensure that social, cultural and gender-related causes are consistently addressed; and make certain that changes in cross-border trade regulations have minimum negative effects on people's access to food.

The humanitarian community has achieved significant progress in recent months to address the crisis in Niger, but chronic vulnerability and high levels of chronic and acute malnutrition persist. Greater efforts are required to understand and respond to this chronic vulnerability.

[1] Borrel. A, Rumber. L and Mathurin. G (2006). Chronic vulnerability in Niger: implications and lessons learned for UNICEF's emergency nutrition response. Humanitarian Exchange, No 34, pp 25-28, June 2006

Child survival during the 2002–2003 drought in Ethiopia

Summary of published research[1]

Early indications were that the 2002/3 drought that affected 13.2 million people in Ethiopia would lead to increased child mortality, despite a large relief operation. Humanitarian agencies reported sharp increases in child deaths and pockets of acute distress in some hard-hit localities. In response, the 2004 Ethiopia Child Survival Survey (ECSS) was designed to investigate the impact of the drought on child survival in the general population. The survey, reported in a recent paper, covered 4816 households in both drought-affected and non-drought affected areas, as well as rural and urban localities. Data from the ECSS indicate that child mortality was indeed higher in drought-affected areas.

However, a closer analysis by the authors reveals that this differential is attributable to chronic conditions in those localities, rather than the immediate impact of the 2002/3 drought. Multivariate analysis was used to construct a model for the determinants of child survival in the sample population. The analysis showed that household level demographic factors, household level food and livelihood security, community level economic production, and access to potable water were predictive of child survival. Residents of drought prone areas tend to fare worse with respect to most of these variables and thereby suffer persistently lower levels of child survival and higher levels of chronic malnutrition, even during non-drought years.

Additionally, household receipt of food aid had a small but significantly positive association with child survival, even though the ECSS cannot determine either the underlying causal mechanisms of this association or the role of confounding factors.
Thus, receipt of emergency food aid in the acute phase of crisis may mitigate but cannot completely overcome chronic adverse effects.

The authors argue that future gains in child survival will demand additional and longer-term investments in public health, nutrition, livelihoods, and, when necessary, emergency interventions. At the same time, the data suggest that water provision, efforts to improve livelihoods by increasing livestock ownership, and reduced exposure to production crises would likely have a greater protective effect on excess mortality during drought periods than emergency food aid distributions alone. Consequently, future relief operations should diversify away from undue reliance on a general food ration.

[1] De Waal, A, Taffesse. S and Carruth. L (2006). Child survival during the 2002-2003 drought in Ethiopia. Global Public Health, June 2006; 1 (2), pp 125-132

Infant feeding in tsunami affected villages in India

Summary of published research[1]

A recently published descriptive study highlights the problems related to feeding of infants and young children in crisis situations. The objectives of the study were to describe the pre-existing feeding practices of infants and young children among the tsunami affected community and to assess the use of breast milk substitutes donated during the Tsunami and the related morbidity.

One hundred families with at least one child less than 5 years of age were interviewed using a pretested questionnaire over a one month period in four villages of Pondicherry, India. Serial house-to-house visits were made until 25 families were identified in each of the four villages. From these visits, three key informants were chosen for in-depth interviews and another five mothers along with non formal leaders, Youth Club members and social workers of the village forming a total of 10 for a focus group discussion.

Chi square tests was used for statistical analysis of data related to BMS consumption and occurrence of diarrhea.

Out of the 176 children in the study group, 92(52%) were males and 84(48%) females. There were 33 (19%) infants under 1 year and 143 (81%) children in the age group 1-4 years. Among the 100 mothers interviewed, 51% had initiated breastfeeding within one hour of delivery and 23% of them had given sugar water as prelacteal feed to their babies.

Pre-tsunami infant feeding practices

Exclusive breastfeeding for six months was not practiced by 30% of the mothers interviewed[2]. However, 69% had breastfed their babies for more than a year. Commercial infant formula was used as the predominant complementary feed by 51%, while cow's milk and rice were used by 11% and 38% respectively. Bottles were predominantly used for complementary feeding by 58% while paladai[3] and cup were used by 8% and 34% respectively.

Post-tsunami

Within 15 days after the Tsunami, eight (5%) children had chickenpox, 25 (14%) had lower respiratory tract infections, 10 (6%) had dermatological problems and 37 (21%) had diarrhoea. The prevalence of diarrhoea was significantly higher amongst children who had consumed freely distributed BMS (n=27 (73%)) compared to those who had not.

The focus group discussions, key interviews and the interaction with the 100 respondents revealed that 72% of the families had received free BMS, although none of them actually met the WHO criteria to receive it[4]. The milk powder was provided in polythene packs with the label 'milk powder' and showing ISI mark. However, it was uniformly felt that the powder was of poor quality and mostly consumed by the adults in the family due to fear of diarrhea in children.

Boiled water was used for drinking after the tsunami and all children with diarrhea had received ORS.

Among the 100 mothers interviewed, 67% felt that breastfeeding was affected after the tsunami. Most mothers in the villages studied were under stress and had to move frequently between their homes near the seashore and the temporary relief shelters due to rumours of a further tsunami. Anxiety affected their appetite and many felt that this undermined breastfeeding. However the feeding pattern of the children before and after the tsunami was the same, according to 95% mothers, and 96% of them felt that there was no increased milk powder use after the tsunami.

The authors suggest that inappropriate feeding practices pre and post tsunami probably aggravated the occurrence of diarrhea, along with the inappropriate distribution of poor quality free BMS post Tsunami. As artificial feeding was pre-existing in the study population, the free distribution of BMS after the tsunami did not have much impact on feeding pattern[5], and milk powder was used the same way as before. However mothers experiencing difficulties in breastfeeding were at risk of initiating artificial feeding where milk powder was freely available. The authors conclude that intensified health education to address mother's doubts and encourage breastfeeding is needed especially during emergencies but also under routine disaster responses, rather than just in interventions after a disaster.

[1] Feeding of Infants and Young Children in Tsunami Affected Villages in Pondicherry. Adhisivam B. et al, 2006. Indian Paediatrics 724, Vol 43, August 2006.

[2] Standard methodology to determine breastfeeding rates (based on current feeding status using previous 24 hour recall) was not used in this study.

[3] A paladai is a traditional Indian feeding cup that has a long, grooved spout. It can be used to feed newborn infants. See more details at http://www.who.int/reproductive-health/publications/mnp/mnp.pdf, page C17

[4] Guiding principles for feeding infants and young children during emergencies. Geneva,World Health Organization, 2004

[5] Since the study infant feeding patterns were based on recall from one year previously, they should be interpreted with caution.

Minimising the risks of artificial feeding in emergencies

The Operational Guidance on Infant and Young Child Feeding in Emergencies (V 2.0) specifically deals with handling breastmilk substitutes (BMS) in emergencies, including donations. Some key points include:

6.1 Targeting and use, procurement, management, and distribution of BMS, milk products, bottles and teats should be strictly controlled, based on technical advice, and comply with the International Code and all relevant World Health Assembly (WHA) Resolutions.

6.2.1 Infant formula should only be targeted to infants requiring it, as determined from assessment by a qualified health or nutrition worker trained in breastfeeding and infant feeding issues. Example criteria are included in the Operational Guidance.

6.2.3 Distribution of infant formula to an individual caregiver should always be linked to education, one-to-one demonstrations and practical training about safe preparation, and to follow-up at the distribution site and at home by skilled health workers. Follow-up should include regular monitoring of infant weight at the time of distribution (no less than twice a month).

6.3.5 For those targeted infants requiring infant formula, supply should be continued for as long as the infants concerned need it (until breastfeeding is re-established or until at least 6 months and a maximum of 12 months of age[i]).

6.4.1 BMS, milk products, bottles and teats should never be part of a general or blanket distribution. Dried milk products should be distributed only when pre-mixed with a milled staple food and should not be given as a single commodity.

Source: Operational Guidance on Infant and Young Child Feeding in Emergencies for Emergency Relief Staff and Programme Managers. Version 2.0, May 2006. Available to download at www.ennonline.net or in print from the ENN

[i] For guidance on when infant formula may be used for 6-12 months age-group, see Feeding the non-breastfed child 6-24 months age, p14

By Dr Bethou Adhisivam

Dr Bethou is a paediatrician currently based at the Mahatma Gandhi Medical College and Research Institute, Pondicherry, India and was one of the researchers in the study just summarised. Here he expands on his research findings.

Most of the needs assessment and interventions post-tsunami related to mortality census, rehabilitation (including housing), and providing new fibre boats. We were not aware of any need assessments at any stage relating to infant and young child feeding or specific interventions to support breastfeeding during the emergency response, either by local staff or international organisations. Apart from the immediate supply of food packets for a week or two after the tsunami, there was no significant infant feeding intervention. After each interview during our research, we took the opportunity to brief the mother regarding best practices with regard to breastfeeding and the need to support these, especially during emergencies.

Food supplies for children (free bread and milk routinely given out at schools) continued in the acute phase of the response. Temporary community kitchens were established in places like schools. These provided food to adults that was shared with their children. However children were deprived of their staple diet of fish for between 3- 4 months as their parents feared that sea fish would be contaminated post-Tsunami.

During the emergency, the healthcare facilities consisted of mobile health camps organised by the Government and NGOs. Most mothers had to seek help to manage their children's diarrhoea. However ORS packets were provided in abundance. A few mothers had seen their neighbours using ORS and just followed what they had seen.

No one knew exactly who supplied the free BMS. Each day after the tsunami, packages that included BMS and feeding bottles, among other things, just kept appearing. They were provided by the Government, NGOs and individuals in blanket distributions with no targeting criteria. Determining the exact origin of BMS was difficult in our study as the survey was carried out almost one year after the tsunami.

We describe 'poor quality breastmilk substitutes' in the research paper. By this we meant that the BMS were supplied in polythene packs that were often damaged on opening. This meant that the powder absorbed more moisture and was not dry. As a result the adults often used it for preparing coffee or tea, rather than feeding the children. The labels simply read 'milk powder' with an ISI mark, but there was no date of manufacture or expiry date.

Out of the hundred mothers we interviewed, whose children ranged in age

from 0-4 years, 30 mothers had fed their children with food or fluids other than breast milk within the first six months of life. These 30 mothers described that they had started feeding their children with commercial infant formula or cow's milk before six months due to "insufficient milk". Bottles were the predominant container used for feeding not only infant formula, but also semi-solids/other foods and drinks. The prevalent practice of formula feeding pre – Tsunami in these coastal villages came as a surprise to the researchers. Generally, it is believed that breastfeeding is common among the rural Indian population and that they are not sufficiently wealthy to afford commercial formula. This survey also revealed how media advertisements can mislead mothers and how emulating the infant feeding practices of neighbours can lead to a chain reaction in the community. However, as pre-Tsunami data on infant feeding and anthropometry were lacking, it was difficult to assess the impact of the Tsunami objectively.

The research found that 67% of women felt that breastfeeding was affected by the Tsunami. Most mothers in the villages studied were under stress and were in the process of frequent shifting between their homes near the seashore and the temporary relief shelters due to rumours of a repeat Tsunami. Therefore they did not eat well and felt they could not breastfeed their babies properly. In particular, they could not breastfeed as frequently or as peacefully as usual. However these difficulties were experienced for only a few weeks, after which they were able to breastfeed normally. Older infants were fed as usual. The focus group discussions and interviews highlighted how infants with no mothers were fed with cow's milk, and how "immediate remarriages occurred in families where the mother died in order to take care of children, especially infants".

One final comment and important consideration on conducting assessment and research in such contexts: during the study some people did not want to recollect experiences as it brought back painful memories of the disaster. A few even broke down during the interviews. Also, a few adults were reluctant to provide information as the relief work had not been carried out to their satisfaction and they expected monetary benefit (as relief) after the interviews. If this is the situation fully one year on from the emergency, immediate assessment after the emergency may not have been feasible or at least severely constrained. Finally, it is important to state that without the help of local volunteers we would not have completed the survey. Their presence was essential for establishing a rapport with those affected by this disaster.

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Lessons on Cash for Work in Somalia

Summary of published research[1]

ACF, Somalia, 2002

Community work in the CFW programme in Boden

A recent paper published in Disasters describes the experience of Action Contre la Faim's (ACF) cash for work (CFW) programme in southern Somalia. The project was implemented between June 2004 and October 2005 as an integral part of a food security and water and sanitation programme in Wajid district. It was a response to the gradual return and stabilisation of the population in the area, which had been affected by conflict since 1991. The primary goal of the CFW project was to increase the diversity of incomes in the target areas. Secondary aims were to enable restocking and to increase access to water.

In total, USD 138,891 was distributed to 4,029 households during the 16-month project period, reaching almost 25,000 direct beneficiaries. The amount per household varied between USD 30 and USD 48. By the end of the scheme, 31 water catchments had been rehabilitated.

The four main reasons why cash was used were;

- Lack of purchasing power at household level
- A vast array of needs, ranging from basic items to restocking
- Existence of functional markets
- A monetised economy.

Additionally, when analysing security risks, it was judged that a commodity distribution would potentially be riskier than a cash distribution, given the logistics.

CFW as opposed to direct cash distributions was chosen because there was meaningful community work to be performed, notably with regard to village-level water catchments. Also, it was determined that targeting would be easier if the project had a work component. ECHO funded the programme under a wider programme to address food insecurity, malnutrition and health in Wajid and Mogadishu.

Selected projects were designed to be work-intensive and to benefit the whole community, with communities making the final decision. The choice of water catchment rehabilitation was based on participatory methods of problem identification and problem ranking by villagers. The selection of beneficiaries occurred at village and household level with geographical targeting serving as the initial filter. The final selection criterion (defined by the communities at the village level) had livestock ownership as its determining factor (no camels or cattle, and no more than five sheep or goats). Registration and the selection of beneficiaries always happened during a public meeting, in the presence of ACF staff.

In order to develop a common understanding of the roles and responsibilities of both the beneficiary community and ACF, a Community Action Plan (CAP) was drawn up with the community. The CAP instilled a sense of community ownership and responsibility with regard to project activities.

During the first phase, ACF distributed cash directly to beneficiaries. The mode of distribution was changed for the second phase, due to security concerns. Instead the distribution was based on a voucher system, and the dispatch of cash itself was subcontracted to local business executives. ACF distributed vouchers directly to beneficiaries, which the business people cashed.

Monitoring took place in two phases; monitoring of the project work and post-distribution monitoring of the distributed cash or vouchers.

Conclusion

The programme proved to be an efficient way of delivering relief in Somalia. It largely achieved its main aim of diversifying household income sources and increasing access to water. However, progress towards restocking was more limited. Beneficiary satisfaction was high. Several key factors contributed to the positive outcome of the programme:

- Cash was a response to an identified need.
- Public works projects stemmed from a real need.
- Existing commercial networks were functional.
- There was strong community involvement and the use of existing community structures, total transparency, robust supervision and monitoring tools and a strict protocol on the management of security risks.
- The communities accepted ACF.

Cash as a relief response offers major possibilities for future work on two levels. From the donor or agency standpoint, it is an alternative or a complement to commodity distribution, notably food aid. From the beneficiary perspective, it enhances dignity and the degree of empowerment, enabling them to take control of the relief themselves and to adapt it to individual needs in a timely manner.

[1] Mattinen H and Ogden K (2006). Cash-based interventions: lessons from southern Somalia. Disasters, 30 (3), pp 297-315

ACF, Somalia, 2002

Issuing vouchers to exchange for cash in the second phase of the ACF project

Weighing scales for young infants: A survey of relief workers

A baby being weighed on a home visit in South Africa

T Doherty, S Africa, 2005

By Chloe Angood

Chloe has a background in Development Studies, and previously spent thee years working with an NGO in Zimbabwe. For the past year she has been working part-time with ENN on projects related to infant feeding in emergencies. This research was carried out for her MSc in Public Health Nutrition dissertation with the University of Southampton, UK.

Infants under 6 months are particularly vulnerable in emergencies, usually as a result of inappropriate feeding practices[1]. Interventions to prevent and treat infant malnutrition in emergencies depend on an accurate assessment of infant nutritional status and a prerequisite to weighing is an effective set of weighing scales. However, there is a lack of guidelines and information about which weighing scales to use for infants. In the WHO field guide, hanging spring scales measuring in 100g graduations are recommended for weighing infants from birth[2]. However, this does not consider the need for weighing scales with greater precision for the management of severely malnourished infants. In the recent Multicentre Growth Reference Study (MGRS) portable electronic scales with taring ability[3] were used (specifically the UNICEF electronic scale 890 or UNISCALE)[4]. However, these scales have not been tested in emergencies, or with very low weight infants.

Repeated communication to the Emergency Nutrition Network (ENN) suggest that the lack of clear guidelines in this area is a frustrating hindrance to emergency programming, and can prevent the anthropometric assessment of young infants in emergencies altogether[5]. The University of Southampton conducted the following study with help from the ENN in order to provide a first step to bridging this lack of guidance.

Project Design

The objective of this study was to discover the type of weighing scales most commonly used by humanitarian relief workers to weigh infants under 6 months in emergencies and the type of weighing scales that this group believes to be most suitable for this purpose in order to generate a hypothesis for field trials. The results of field trials would then form the basis of recommendations to humanitarian relief workers.

Between June and August 2006, a cross-sectional survey was carried out by email and telephone. The subjects were 41 humanitarian relief workers from different UN agencies, international and local non-governmental organisations (NGOs) and governments, working in 25 different countries. All subjects worked in emergency nutrition programmes and had recent direct experience weighing infants under 6 months.

Results

Types of scales currently used in the field

Table 1 displays the different types of scales used by respondents, (illustrated in Figures 1). Table 1 shows that by far the most commonly used type of weighing scales are hanging spring scales. The second most popular are balance beam bowl. Only three respondents used adult bench scales (UNISCALE) and no respondents used infant bench scales.

All hanging scales used by respondents are made by Salter and, in 23 out of 26 cases, this is the Salter 235 6S model. Most balance beam scales used are made by Seca and in 6 out of 8 cases this is the Seca 725 model.

Data reveal some interesting differences when analysed by the different contexts in which respondents work. Figure 2 displays the types of weighing scales used in exclusively clinical settings (such as therapeutic feeding centres), exclusively community settings (for example in community surveys) and those used in both. This demonstrates that respondents tend to use different scales for different purposes (this difference is statistically significant, p=.035). Specifically, respondents are more likely to use balance beam scales in exclusively clinical contexts and hanging scales in the community

[1] WHO-UNICEF (2003) Consultation on child health in complex emergencies, 21-22nd October, 2003. Geneva: WHO.
[2] WHO (2002) The management of nutrition in major emergencies. Geneva: WHO.
[3] Allows the scales to be set to zero while someone is standing on it.
[4] De Onis, M., Onyango, A.W., Ven den Broeck, J., Chumlea, W,C. and Martorell, R. (2004) Measurement and standardization protocols for anthropometry used in the construction of a new international growth reference. Food and Nutrition Bulletin, 25 (1), supplement 1.
[5] Prudhon C. (2000). Including infants in nutrition surveys. Field Exchange Issue 9, p15.

Opinions about the suitability of weighing scales used

Respondents were asked their opinion on the suitability of the scales that they use for weighing infants under 6 months. Respondents believe that different types of scales have different strengths and weaknesses. These are summarized in Table 2. Overall, respondents believe balance beam scales to be the most suitable type of scales to weigh infants under 6 months in emergency situations and hanging scales to be the least suitable.

An ideal set of weighing scales

Respondents were asked questions about the features of an ideal set of weighing scales for weighing infants under 6 months in emergencies. A high proportion of respondents stated that mechanical scales are most suitable and, second to this, solar powered scales. This suggests that mains and battery power are difficult to sustain in emergency situations. Respondents generally agree that scales should be light and precise, with a fairly low maximum capacity, measuring in small graduations. Most respondents do not believe that a secondary function is necessary, however, the most popular secondary function of those mentioned is to measure infant length.

Figure 1: Types of scale used

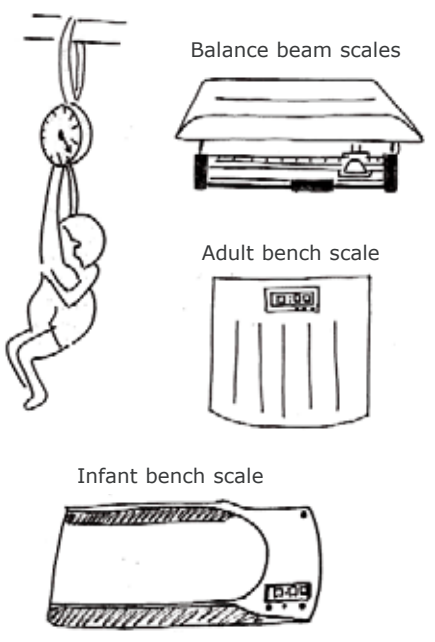


Table 1: Types of weighing scales used by respondents

Type of scales	No. Respondents	% Respondents
Hanging	26	63.4
Balance beam bowl	12	29.3
Adult bench taring	3	7.3
Infant bench bowl	0	0
Total	**41**	**100.0**

Table 2: Summary of the strengths and weaknesses of different types of scales used

Criteria	Hanging scale	Balance Beam	Adult bench
Precision	Low	Medium	Low
Function	Low	Medium	High
Ease of use	Medium	Medium	Medium
Portability	High	High	Medium
Durability	Medium	High	High
Cost	High (low cost)	Medium	Medium

Key points
Humanitarian workers believe all existing types of weighing scales to be limited in some way in weighing infants under 6 months in emergency situations. No ideal set of weighing scales exists.

Hanging spring scales, specifically the Salter 235 6S model, are the most common type of scales used by respondents for weighing infants under 6 months in emergencies.

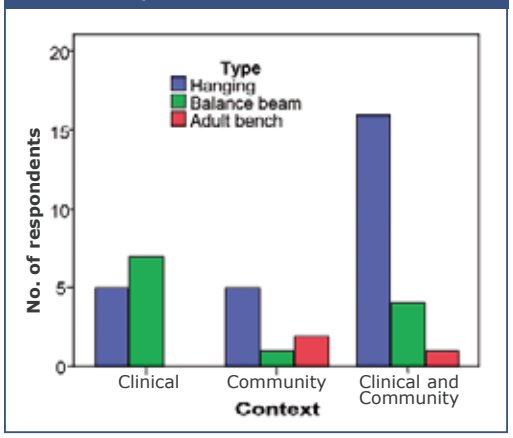
Respondents tend to use different scales for different purposes; in clinical settings they are likely to use more precise scales, usually balance beam scales, and in community settings (and where respondents use the same set of weighing scales in both) they tend to use less precise scales, usually hanging spring scales.

Humanitarian workers rate hanging scales as the least suitable type for weighing infants under 6 months in emergencies, even though they are the type used most frequently.

Respondents regard balance beam scales as the most suitable type of weighing scales out of those that exist. Balance beam scales are rated higher than others in terms of precision, function and ease of use and fairly highly on portability and durability.

Adult bench scales and infant bench scales are relatively unused by humanitarian workers and are therefore untested by the study.

Figure 2: Graph showing types of scales used by respondents in different contexts



Conclusions
Different weighing scales are needed for weighing infants under 6 months in emergencies. Demands may be satisfied by balance beam scales, however their suitability needs to be tested in field trials. Adult bench scales and infant bench scales also need to be tested. Manufacturers could consider developing a new type of weighing scales specifically designed for weighing infants under 6 months in emergencies.

Design Brief for an ideal set of weighing scales
On the basis of this study, the criteria for an ideal set of weighing scales for weighing infants under 6 months in emergencies are as follows:

Precise: able to measure in very small graduations (20g)

Functional: Able to hold and measure very small infants. Infants should be held securely with their heads supported, with maximum comfort and minimum handling. An adult bench scale with taring capacity could be considered for this purpose (where infants are held in their mother's arms during weighing). A helpful additional function would be to measure infant length. The scales should also accommodate a wider age group than just infants under 6 months (at least all children under 5 years).

Easy to use: As easy as possible to use, to enable the scales to be used by personnel who are not highly skilled, and to avoid measurement errors. Must be easy to calibrate (if possible self calibration), put together/ set up, place infant/child on the scales and read the result (possibly digital display). Pictorial instructions could also be etched onto the scales so that they cannot be lost.

Highly portable: Able to carry scales easily and comfortably by hand. They must therefore be lightweight and pack down to a shape that is easy to carry, with a handle. Any attachments also need to be highly portable within this.

Adapted to field conditions: Able to operate in extreme hot and cold temperatures and either mechanical or powered by a renewable energy source (e.g. solar or wind up power). Must not have holes that will allow dirt/ sand to get in. It should be possible to use the scales on a non-flat surface. Hanging is not preferable, unless self-hanging.

Durable: Must be highly durable due to frequent transportation, rough conditions and heavy use.

Low cost: Must be low cost (it must either last a long period of time, or be very easy to replace) to make it affordable. The most commonly used scales at present (hanging spring scales) cost £60-£100 and are replaced every 2-4 years with heavy use.

The full research report is available on the ENN website, http://www.ennonline.net/docs.html

Call for Collaboration

The Institute of Human Nutrition at the University of Southampton is now actively seeking to develop the technology to fulfill the above criteria and plan to test prototype equipment against existing types of scales in field trials. The University of Southampton is seeking to work with interested organisations in the development of this product and in field trials. The ENN will continue to communicate with the University of Southampton on this. If you would like to be involved, or to find out more, please contact Chloe Angood, email: chloe@ennonline.net

Supplementary feeding using RUTF in Malawi

Summary of published research[1]

A study has recently been conducted to compare the clinical effectiveness of two supplementary feeding regimens in children at risk of malnutrition. The study took place in seven centres in rural Malawi. Being at risk of malnutrition was defined as weight-for-height <85%, but >80% of the international standard. A stepped-wedge design with systematic allocation was used for assigning children to receive either ready-to-use therapeutic food (RUTF) (n=331) or micronutrient-fortified corn/soy-blend (n=41) for up to eight weeks. Both regimens supplied quantities of food that were much larger than would actually need to be consumed by the children to achieve accelerated growth, and both the foods were simply distributed to mothers as dry rations. RUTF had the advantages of requiring no further preparation before consumption and having a high energy density, thus allowing for the consumption of small portions of the supplemental food to result in a substantial increase in energy intake. Furthermore, RUTF may not be subject to as much leakage as cereal/legume-blends because such spreads are not usually part of the habitual diet. Therefore, other family members do not see it as food, but more as 'medicine'.

The primary outcomes were recovery, defined as weight-for-height >90%, and the rate of weight gain. Children receiving RUTF were more likely to recover (58% vs 22%; 96% confidence interval {CI} 20-52) and had greater rates of weight gain (3.1 g/kg . vs 1.4 g/kg.d; difference 1.7; 95% CI 0.8-2.6) than children receiving corn/soy blend. The results of this preliminary work suggests that supplementary feeding with RUTF promotes better growth in children at risk of malnutrition than the standard fortified cereal/legume-blended food.

The main limitation of the study was that participants were not randomly assigned to the two groups. Randomisation was not possible due to local belief systems of equity so that blatant differences would not easily be tolerated and also because of the limited resources of the Malawian health services which prevented creation of two parallel feeding options. In addition, blinding of staff and participants was impossible because of the obvious difference in appearance of the two types of foods. However, there is no evidence that bias resulted as the characteristics of the two dietary groups were similar upon enrolment.

Another limitation of the study was the large disparity between numbers in the two groups. Recruitment took place during the pre-harvest season when prevalence of malnutrition was at its highest. Thus, as the season progressed and food became more scarce, the number and severity of under-weight children increased. A stepped-wedge design was necessary to control for this seasonal variation, but its implementation resulted in a seven-fold greater number of children receiving RUTF. However, regression analyses performed to control for the effect of covariates indicated that type of supplementary food was an independent, significant determinant of the outcome.

The authors conclude that although supplementary feeding with RUTF may be a more effective alternative, larger-scale programmes often do not achieve the success seen in research studies so that data from use of RUTF as a supplemental food on a larger-scale are needed to evaluate its utility.

[1] Patel. M et al (2005). Supplemental feeding with Ready-to-Use Therapeutic Food in Malawian Children at Risk of Malnutrition. J Health Popul Nutr, December; 23 (4): pp 351-357

Assessing nutritional status in HIV positive adults

Summary of published research

Humanitarian agencies are starting antiretroviral (ARV) programmes in a number of conflict settings. Many of the patients in these programmes are malnourished and some require supplementary feeding in order to boost their nutritional status. However, the current means of measuring nutritional status of adults - body mass index (BMI) - may not be sensitive enough to take into account the physiology of HIV positive patients on ARVs (lean muscle wasting combined with lipodystrophy). Thus, while there is a depletion of lean body mass, weight itself may not change due to the extra fat being produced.

A variety of assessment tools can be used to determine nutritional status in both sick and healthy adults. These include anthropometric methods such as skinfold measurement and mid-upper-arm circumference (MUAC), subjective global assessment (SGA), BMI and more recently bioelectrical impedance analysis (BIA). The tool most commonly used to assess adults is BMI but this is insensitive to changes in lean muscle mass (LMM), which is a more accurate indicator of change in nutritional status. BIA is a technique developed to measure body composition, in particular, fat free mass, which leads to estimations of LMM. It has been used mainly in clinical and laboratory settings and has been validated for use in assessing body composition of HIV positive adults. The technology involves using electrical currents to measure resistance and reactance. SGA was originally developed to determine which patients need extra nutritional support following surgery for gastrointestinal problems and relies on a combination of patient history, clinical signs of malnutrition and assessment of muscle function using handgrip strength.

A recent review of the literature and a number of databases on all these measurement techniques was conducted to explore the optimal nutritional assessment methods for HIV positive adults. This review pointed out that all the methods examined have advantages and disadvantages in resource poor settings.

MUAC is a good tool for adult screening. It is lightweight, portable and easy to use and able to detect slight changes in skeletal muscle mass. However, there is likely to be a degree of operator error in the use and reading of the results.

Skinfold measurement is a good indicator of fat mass and changes in fat mass. However, it is unreliable in estimating fat free muscle or lean body mass.

SGA is a relatively new tool for HIV. It is less expensive than BIA and does not require mechanical equipment. Research so far suggests that it is a good tool for detecting early loss of muscle function indicating a loss of body cell mass.

BIA is a good tool for detecting body cell mass loss in HIV-wasting and compares favourably with gold standard methods, e.g. measuring total body potassium and dual energy x-ray absorptiometry (DXA). The scales are relatively inexpensive (approximately £700) and easily portable. However, certain conditions must exist for measurements. For example, subjects must be well hydrated and not exercised for 24-48 hours before measurement. This may make it a poor tool for screening in an African clinic where most patients have to travel long distances in high temperatures to reach a clinic.

The study concluded that for all the tools examined, the prediction equations have been formulated on the basis of data gathered from western populations and there is need for more research based on African populations. BIA is not a good tool for screening for wasting, but would be a good tool for monitoring changing nutritional status in in-patients. A combination of BMI and MUAC are good tools for measuring the nutritional status of HIV positive adults in an outpatient setting.

For further information contact: Sarah Kelly, email: sarah.kelly@paediatrics.ox.ac.uk

[1] Kelly. S (2006). Bio-electrical Impedance Analysis. A tool for screening. MSc Public Health in Developing Country Project Report. August 2006.

MMcGrath/ENN, Namibia, 2006

The Triple Threat: Southern Africa's emergency behind the emergency

A Junior Farmer Field Life School site in Swaziland, one of five pilots started in 2006.

By George Aelion, WFP

George Aelion is Senior Regional Programme Advisor, with the World Food Programme in the Southern Africa Region. He has over 30 years of experience working in the development arena, including nine years as the Assistant Director of a Technology Transfer Centre at the University of Rhode Island and 14 years at the United Nations World Food Programme in various positions including Head of Training, Programme Advisor for a forestry project in India, Head of Programme in Kosovo and Regional Head of Programme in the Southern Africa Bureau.

Recent news reports of war-stricken Darfur and drought-stricken East Africa have shocked the world with images of skin-and-bones hunger victims and the dessicated corpses of cattle. By contrast, southern Africa's crisis is generating a dwindling response from the Western world – especially after this year's relatively good harvest.

Yet the crisis in southern Africa is one of toughest humanitarian challenges in the world today. This is because it is not caused by just one factor, such as weather or food insecurity. Instead, southern Africa is plagued by a deadly combination of inter-related factors. The region is the epicentre of the global HIV/AIDS pandemic; government agencies, whose productive employees are succumbing to the disease, cannot stem the progress of HIV/AIDS or provide their most vulnerable populations with basic healthcare, food and drugs to survive, or the education to develop long-term life skills; and chronic food insecurity is compounded by debilitating poverty. The United Nations (UN) and others active in Southern Africa call this combination the Triple Threat.

This presents a poor outlook for these communities to withstand any long-term stress factors. The Triple Threat's effects can be seen across southern Africa (in Malawi, for example, as much as 77 percent of the population relies on casual labour for their livelihood).

To understand better the effects of the Triple Threat across six southern African countries, the UN World Food Programme (WFP) and partner NGOs regularly compile information in the Community and Household Surveillance system, which monitors the coping strategies and diet diversity of both beneficiary and non-beneficiary households. According to this system, just before the region's 'lean' season began late last year, at least one-third of sample households in Malawi, Mozambique and Zimbabwe were not eating even the minimum daily requirement of cereals and vegetables. These basic foodstuffs help keep vulnerable populations healthy, but when they become scarce, people with weakened immune systems tend to battle for survivial. In the same period, about a third of sample households in Swaziland were relying on remittances from relatives to keep food on the table, revealing the extent to which family incomes are supplemented from outside and the razor's edge of getting enough to eat.

Of the nine countries where WFP is working in the region – Angola, Lesotho, Madagascar, Malawi, Mozambique, Namibia, Swaziland, Zambia and Zimbabwe – six are on the list of the world's 10 highest national prevalence rates for HIV/AIDS. UNAIDS statistics for 2003 (the most recent available data) indicate that nearly half a million people were estimated to have died of AIDS in that year in these countries. In the same year, over 6 million people in these countries were estimated to be living with HIV. Swaziland leads the world at 43 percent prevalence, according to UNAIDS data for January 2006, based on the testing of pregnant women attending antenatal clinics.

The HIV-positive population includes government workers across the region, depleting the civil service in each country just when it is needed most to meet growing social needs. In addition, many medical workers, teachers and other skilled professionals tend to seek better employment opportunities outside of Africa, creating a regional 'brain drain' of skills.

In eastern and southern Africa, the average healthy life expectancy at birth is an average of just 46 years, or 21 years lower than the world average, according to UNICEF. Sub-Saharan Africa is the only region in the world where orphan numbers are increasing. According to UNICEF, the number of children in eastern and southern Africa who had lost one or both parents because of HIV/AIDS in 2003 was 7.9 million. Children made up 7 percent of the people estimated to be living with HIV in these regions in 2004.

How can humanitarian aid agencies make a difference in a region wracked by such a combination of deadly factors? Not responding is not an option. The most vulnerable people, such as children and women, are already tempted by dangerous and non-productive coping and survival strategies, such as foraging for wild foods, taking children out of school to look for food, and in the worst cases, prostitution or other crime. There is the risk of a domino-like collapse, starting at the family level and spreading into normally resilient community systems, to end potentially with already weakened government social services unable to respond to the desperate needs of communities and households. Trying to provide assistance at the end point of this vicious scenario will be too little, too late.

Three actions are needed to tackle the Triple Threat. The first is to stem the progression of the HIV/AIDS pandemic. The second is to assist governments to regain their role as responsible agents for protecting populations at risk. The third is to ensure households have access to basic essentials like food, sanitation, healthcare, education and agricultural inputs. Any progress in addressing these overwhelming challenges will only be possible through the coordinated efforts of governments, the donor community and aid agencies. Humanitarian assistance to chronically vulnerable populations is one way the international community can help ensure life-saving safety nets are in place to help the most critically in need while governments gear up their response.

In contrast to some of the protracted conflict emergencies (such as Darfur), southern Africa already has in place many of the pieces that could make a substantial difference. The World Health Organisation, for instance, is working with the ministries of health across the region to expedite the roll-out of antiretroviral treatment. Donors such as the Department for International Development-UK (DFID) and the European Union (EU) are also working to strengthen governments' capacity to respond to the crisis through long-term safety nets.

UNICEF, the Food and Agriculture Organisation (FAO), WFP, Oxfam International and CARE this year launched the Alliance on OVC Social Protection and Sustainable Livelihoods, to evaluate current initiatives and influence long-term government policy on orphans and other vulnerable children (OVCs). The alliance aims to ensure that children have

MMcGrath/ENN, Namibia, 2006

Children attending a Neighbourhood Care Point (NCP) in Swaziland. These are community points where local OVCs can come together and receive two cooked meals per day.

basic opportunities to gain life skills that not only protect them but give them a chance for a productive future.

One relatively new intervention that is being replicated across southern Africa is the Junior Farmer Field Life School, a joint initiative of WFP, FAO, and now UNICEF and government agricultural ministries. Southern Africa's first Junior Farmer Field School opened in Namibia in 2002 with support from the Finnish embassy. Five pilot sites each catered for 25 to 30 adolescents aged 12 to 17. The students learned not only modern farming techniques but also social and life skills: if one of their crops failed, for example, the facilitators would use the opportunity to teach the students how to deal with disappointment and failure in other areas of life. As they planned the next season's planting, they would learn how to set and achieve goals.

The programme has since been introduced into Mozambique, Malawi, Zambia and Swaziland, and has reached about 2,000 children in the last three years. Because these children take what they have learned back into their communities, the programme has indirectly benefited as many as 10,000 people so far. To take the programme to scale will require a significant commitment from government, possibly through departments of education.

The Irish aid agency, GOAL, last year partnered with the Health Ministry of Malawi to develop a public awareness campaign about HIV/AIDS in rural village communities, as part of a WFP advocacy project. A large part of the campaign took place at WFP food distribution points, which draw up to thousands of people at a time each month. Before the campaign, the Nsanje District Hospital south of Blantyre tested an average of 100 people a month for HIV. After the campaign began, the hospital reported as many as 400 people coming each month for voluntary HIV testing and counselling.

Other projects in the region train home-based care volunteers on healthy cooking for the chronically ill; provide information on fighting gender-based violence; integrate nutrition information into hospitals' antiretroviral therapy programmes; teach on the importance of education for children; and train mothers to cook and preserve indigenous vegetables, and then to pass on what they have learned in their communities.

WFP has been supporting many of these initiatives by ensuring that food assistance is available to increase the impact and sustainability of the activities. But food alone will not address the emergency behind the emergency. In fact, no single entity or approach will successfully address the Triple Threat. It requires all of the actors – governments, donors, aid agencies and communities – to work together to coordinate a well designed, strategic response. The initial baby steps are encouraging but there needs to be a much more aligned and harmonised response that focuses on building government, community and household capacity to address hunger and HIV/AIDS and develop responsive social safety nets. In this context, food aid to chronically vulnerable groups is one small, but critically important, step forward.

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MMcGrath/ENN, Namibia, 2006

Exit strategies in OVC programming in Namibia

Carers queue for food at an OVC food distribution.

By Marie McGrath, ENN

ENN recently visited several collaborative FAO-WFP programmes in Swaziland and the Caprivi region of north-eastern Namibia – both share some of the highest prevalence of HIV/AIDS (42.6% in Swaziland, 40% in Namibia). In both countries, FAO and WFP became involved through emergency operations (EMOPs). In recognition of the longer-term food security problems in both countries, these emergency programmes evolved into protracted relief and rehabilitation operations (PRRO)s. One of the main challenges facing agencies like FAO and WFP in the region is to address the ever-increasing numbers of Orphans and Vulnerable Children (OVCs). The following field articles cover a range of interventions from targeted food distribution and welfare grants in Namibia to experiences with JFFLS in Namibia and Swaziland (Eds)

This article is based on interviews and in consultation with Joyce Nakuta, Control Social Worker and Lucia Eises, Control Social Worker, Ministry of Gender, Equality and Child Welfare, Windhoek; Baton Osmani, WFP, Windhoek; Jefitta Chikwanda, WFP Field Monitor, Caprivi; Lillian Mutinta Buiswatelo, Senior Chief Record Clerk with the Ministry of Gender, Equality and Child Welfare, Caprivi, and Christine Namushi Matomola, Namibian Red Cross (previously held Record Clerk position with the Ministry), both Caprivi.

ENN would like to thank WFP for their hospitality and support during this field trip, in particular Jefitta Chikwanda in Caprivi, Baton Osmani and John Prout in Windhoek and Patricia Lucas in WFP Jo'burg, South Africa. Thanks also to the Ministry staff, Joyce, Lucia, and Lillian, for being so accommodating in meeting with me at short notice.

Background

Namibia is located in Southern Africa, bordering the South Atlantic Ocean, between Angola and South Africa. Although considered a 'lower middle income country', the majority of the people (more than 1 million) live in the north on communal land and are asset poor, dependent upon subsistence farming and small stock rearing. They are also vulnerable to natural disasters such as recurrent droughts, locusts, floods and animal diseases[1].

Namibia has one of the highest HIV/AIDS infection rates in the world (21.3% of all adults, 2003). Caprivi is a region of Namibia located in the far north of the country, a narrow strip of land at the confluence of four countries – Angola, Zambia, Botswana and Zimbabwe. This position as a key thoroughfare (the Trans-Caprivi highway links Namibia with its landlocked Southern African neighbours) is one of the main contributing factors to the second highest prevalence of HIV/AIDS in the world in this region – 43% at antenatal screening (2002[2]). A considerable proportion of the region is flooded during the rainy season (December-March) greatly restricting access.

In response to the Namibian government drought appeal in November 2003, WFP initiated a six month emergency operation (EMOP 10334) targeting food assistance to 111,000 Orphans and Vulnerable Children (OVCs) in six of the most affected northern

[1] Assessment of OVC interventions with a food component in Namibia. By Rene Verduijn for WFP, November 2004. Accessed online at: http://www.sarpn.org.za/documents/d0001116/index.php
[2] Republic of Namibia, MoHSS, Report of the 2002 National HIV Sentinel Survey

Child Welfare Grants

There are four grant types available for children (0-17 years):

1. **Maintenance grants** – N$200 for the first child plus $N100 for every additional child, for a maximum of 3 children per applicant, per family, per month.
2. **Special maintenance grants** – Social maintenance grants for children with disabilities under 16 years of age. N$200 monthly.
3. **Foster care grants** – N$200 for the first foster child plus $N100 for every additional foster child per apllicant, monthly.
4. **Place of safety allowance** – N$10 per child per day.

regions of the country. This EMOP was subsequently extended to August 2005 following which programming was redesigned and integrated into the Regional PRRO for Southern Africa. The primary objectives of the regional PRRO were to address the triple threat of HIV/AIDS, food insecurity and weakened governance, with particular attention to OVCs. The current PRRO (10310) operation in Namibia is a two year programme, from Jan 2006 to Dec 2007. In 2005, WFP re-established a country office in Namibia to strengthen support to the OVC focused programming.

National OVC strategy

Since 2003, responsibility for OVCs has come under the remit of the Ministry of Gender, Equality and Child Welfare (Ministry GECW). All of the Namibian governments' activities on OVC are guided by the National Strategic Plan on HIV/AIDS Medium Term Plan III (2004-2009) (MTP III). Food aid is just one of the activities to support OVC and is considered an interim measure to deal with the chronically food insecure. The ultimate objective is to have these children integrated into other government safety nets, particularly the Child Welfare Grants that were established in 2000 and have been administered by the Ministry GECW since 2003 (see box).

The target number of OVCs in the national programme was estimated from the national census in 2001 and does not give a clear working figure since the census only covered 0-14y, so that the 15-18 year old age group are not included. However, based on the available figures, the target group is estimated at 156,000 of the most needy OVCs. The National Plan aims to target 80% of this group by 2008. By the end of July 2006, 51,993 OVCs were registered in the government grant scheme. This represents a considerable increase since the Ministry took over the grant system from the MOH in 2004, when there were only 9000 OVCs registered in the scheme.

WFP programming

Under the PRRO, WFP's activities comprise targeted food distribution to OVCs and the development of a number of microprojects[3]. Individual vulnerability is assessed using a simple one page screening tool developed by WFP that is easily administered and also allows gradation of level of vulnerability (see figure 1). During assessment, the screener is blinded to the outcome to make the assessment as objective as possible. OVCs who qualify receive a monthly ration of maizemeal, Corn Soya Blend (CSB), oil and beans. In practice, it is often female headed households who receive the food as extended families who have taken on the children of their relatives.

Implementing partners (IP) are Catholic Aids Action (CAA), the Namibian Red Cross, and the Evangelical Lutheran Church in Namibia (ELCIN). The choice of implementing partner in the region was based upon a consultative process with the Regional Councils and the Ministry GECW. By the end of September 2006, 62,000 OVCs had been registered to receive targeted food, on track to reach 90,000 by December. Regional warehouses for the WFP food being distributed to OVCs are provided by the government, as is secondary transport, for which 50% of the costs are reimbursed by WFP.

The WFP exit strategy is to transfer most of the children registered to receive food through OVC targeting to the child welfare grants scheme. Those in receipt of the child welfare grant are not entitled to food assistance. Once a person successfully applies to receive a welfare grant, they are given a one month grace period before the food entitlement stops. Since linking registration of the food aid beneficiaries with the government grant scheme is critical to this exit strategy, external expertise has been engaged to review both the WFP and Government systems to make practical recommendations on how to link the two.

At a regional level, Ministry and WFP staff and IPs engage with the traditional authorities, the village 'endonnas', who assist in the identification of the OVCs and assist in the registration for food. As part of the monitoring, they use the OVC lists generated through the food distributions and tally them with the list of those receiving the grant. Until recently this was quite labour intensive in that lists were compared manually. However, there has been progress in computerising the system and already this is making it easier. At food distribution points, information on the child welfare grants is distributed detailing the grant and how to apply.

Collaboration

Both the Ministry GECW and WFP describe a strong working relationship since WFP began operations in response to the 2003 drought. The Ministry GECW feel that this has been helped in that all OVC activities work within a National Plan of Action, that also had input from the UN agencies in its development.

The current Management Committee structure used for co-ordination of OVC activities have their origins in the Emergency Management Unit that met and communicated very frequently during the emergency response to the 2003 drought. While the National Management Committee now meet less often at once a month, they have learned the value of close communication and continue to communicate daily though emails and by phone to ensure that they can respond to issues as they arise. The current committee has also learned practical lessons from the emergency unit, in areas like logistics - this 'institutional' memory has also been helped by the fact that WFP was a partner in the previous emergency phase as well as in the current OVC programme.

Both the National Management Committee and Regional Management Committees work with other Ministries, such as the Ministry of Health (MOH), with traditional structures and with IPs. Implementation issues are discussed at a regional level and fed back to the monthly national committee meeting.

The Ministry GECW experience has been that NGOs have not been operating in isolation in OVC related programming, but have been keen to integrate activities in line with overall national objectives put in place. Some NGOs are well established, like the Red Cross and CAA who are two of the implementing partners for OVC food distribution, so their emergency and OVC activities have been part of a continuous engagement in the country. The political stability of the country has also helped to encourage good working relationships between government and NGOs.

[3] See field article in this issue on the Junior Farmer Field Life Schools in Namibia.

MMcGrath/ENN, Namibia, 2006

Above and below: Children help to collect food at two of the distribution sites for OVCs in Caprivi

MMcGrath/ENN, Namibia, 2006

Below: At one of the OVC food distribution points. All the girls have lost one parent.

MMcGrath/ENN, Namibia, 2006

All photos: MMcGrath/ENN, Namibia, 2006

Lillian Mutinta Buiswatelo, Ministry of GECW, and a member of the Nambian Red Cross (IP)

Children wait with their carers

A carer collects her household ration at an OVC targeted food distribution

Grant system challenges

The Ministry GECW and partners are working to address some of the practical challenges currently facing the grants system. Many of these relate to the documentation, like birth certificates and death certificates that are essential for the grants application. For example, a person may be buried along with their documents, such as birth certificates, that are needed for grant applications. Some villages are very remote and have no access to mortuary services to obtain the necessary death certificate and bodies may be immediately buried before there is consideration given to the need to document the death.

To address these issues, the Ministry GECW is involved in awareness raising and communicating through traditional structures to inform people. They are also working with the Ministry of Foreign Affairs to help ease the process of proving the parentage of a child. For example, a short birth certificate is normally issued at birth, however a full birth certificate is required for the grants system. They are trying to change this so that a full version is issued as standard. They are also working to have birth certificates issued at more locations, like health centres and hospitals, and investigating whether also to accept baptismal certificates as well as birth certificates as evidence.

One of the big challenges described by the Ministry GECW is human resources. Administrative clerks carry out the actual processing of applications for the maintenance grants. The Ministry GECW consider this a manageable task with current staff capacity, even with the increasing numbers applying to register, since the bulk of the work is done before reaching office level. However, the greatest bottleneck is in applying the foster and disability grants, due to the lack of social workers on the ground. Currently there is only one social worker in each region, except for the extreme West where there is none. Foster grants processing is also hampered by the legal process – a court order is required to approve a foster placement, and there is only one magistrate dealing with this per region, as there is no dedicated Commissioner for Child Cases. Only once a court order is issued can the foster grant be applied. This situation was reflected in Caprivi where there are 2,690 in receipt of the maintenance grant, and only 89 in receipt of the foster grant – a reflection, say the Ministry GECW staff, of a bottleneck in the system rather than less call for foster grants.

There are a number of practical challenges to the grant process, potentiated in the Caprivi region. Given its border location, children may have been fathered by non-Nambian nationals and so will not be entitled to the Child Welfare Grant in Namibia, even though they are living there. There are cases where a father may be working in a border country like Botswana or Zimbabwe and die there. It is very difficult for a family to secure the necessary death certificate to prove this and so again, the grant cannot be accessed. While the Ministry GECW staff try to be as supportive as they can in such circumstances, this documentation is essential to ensure the grants are appropriately targeted to OVCs.

The Ministry GECW are aware that the current programme is largely focused on material assessment and support to OVCs. They hope to develop a combination of services that would more broadly address quality of life for these children and for assistance to include psychosocial care.

Discussion

There are a number of significant challenges facing the escalation in the child welfare grants system in Namibia that will have a bearing on how successfully WFP can exit from the targeted food assistance on schedule. First, the sheer numbers involved is a high target –111,000 OVCs - particularly since this involves dovetailing two administrative systems together within a relatively short time frame. Even when both systems can be successfully linked or combined administratively, there remains the outstanding issue of those children identified as vulnerable through targeted food assistance but who do not quality for government assistance due to lack of documentation. This may emerge as a particular problem in areas like Caprivi where documentation may be especially lacking. Ironically, given the high prevalence of HIV/AIDS and number of orphans, it is a region that is particularly in need of assistance.

As yet, human resources capacity is not limiting the administration of maintenance grants but many more still need to be registered. The acute lack of social workers is already limiting provision of foster grants, disability grants and safe place grants. Given the HIV/AIDS prevalence and with increasing strain on family networks, the proportion of OVC requiring foster care or placement is most likely to increase.

In what is a politically stable country with functioning and accessible markets, there are those who might argue for a cash or voucher scheme instead of food aid that would be easier to administer. On the other hand, a cash or voucher scheme could well undermine the cash based government grant scheme and removed the incentive to transfer to the grant system. There is also a visibility given to the OVC situation through the food distributions that perhaps would be less obvious or hidden in a cash scheme.

Despite the challenges, there is a strong sense from the WFP and Ministry GECW staff that this is a very good working partnership that has developed between them. The close communication that is established is really helping to deal quickly with any issues that arise. While both schemes are running in parallel, they are not duplicating efforts. WFP food aid is considered a temporary relief pending transfer to the government grants system. Furthermore, the food programme will help build capacity and facilitate the transfer of some of the most vulnerable children in Namibia to the grant system. The pro poor / vulnerability focus of WFP beneficiary selection criteria will help to fast track many of those most deserving cases over to government grants faster than would otherwise be the case.

For further information, contact: Baton Osmani, WFP, email:Baton.Osmani@wfp.org

Lillian Mutinta Buiswatelo, Ministry of GECW, checks registration at an OVC food distribution point

Meaursing oil at the distribution

All photos: MMcGrath/ENN, Namibia, 2006

J Hourihan/FAO, Namibia

Entrance sign to one of the JFFL Schools

Junior Farmer Field Life Schools in Namibia and Swaziland

Thanks to James Breen, FAO Regional Emergency Agronomist in South Africa, for coordinating the production of this field article, John Hourihan, Senior Officer in the Gender and Population Division of FAO, and a Lead Technical Officer for the JFFLS, for his technical input, our partners including FAO, WFP, UNICEF, US Peace Corps and various donors for their ongoing support of this initiative.

Junior Farmer Field and Life Schools (JFFLS) were developed by FAO and partners to improve children's agricultural and life skills for livelihood support and food security. The JFFLS approach is an adaptation of successful practices for developing knowledge and life skills among farmers in difficult circumstances such as Farmer Field Schools and Farmer Life Schools, adapted to local cultures and designed for children. Piloted in Mozambique in 2003, the programme has now expanded to Kenya, Malawi, Namibia, Swaziland, Tanzania, Zambia and Zimbabwe.

At each JFFLS site, specifically trained extension workers, teachers and social animators use a participatory method to pass on agricultural knowledge and life skills to boys and girls between the ages of 12 and 17 years. The one-year learning programme follows the crop cycle; links are established between agriculture, nutrition, gender equality and life-skills knowledge so that young participants learn to grow healthy crops while making informed decisions for leading healthy lives. Participatory field activities include crop selection and cultivation, land preparation, pest management, cultivation of medicinal plants and income generation; as well as local theatre, art, dance and song.

Strategic partnerships is one of the strengths of this multi-sectoral approach: FAO provides the basic information and tools to undertake sustainable agricultural practices, and provides training on such things as gender roles and equality, the rights of children, and good nutrition; WFP may support children in a school feeding programme and/or through Food for Work (FFW) and Food for Training (FFT), while UNICEF provides technical expertise and learning materials in the areas of life skills and child protection. The United States Peace Corps is an active partner in both Namibia and Zambia, and provides on-site volunteers for periods of up to two years, most of whom are lending technical expertise in agricultural fields and/or life skills training. Non-governmental organisaitons (NGOs), community-based organisations (CBOs) and faith-based organisations also contribute their knowledge, skills and support to JFFLS at the local level[1].

[1] Adapted from the FAO website, accessed 13.11.2006

Junior Farmer Field Life Schools in Namibia

By Kiwan W Cato, FAO Namibia

Kiwan Cato was introduced to the JFFLS initiative while serving as a Peace Corps Volunteer Leader in Northern Namibia, 2005. In this capacity, he trained teachers and assisted communities in developing income-generating enterprises, such as vegetable gardens, bakeries and craft markets. Kiwan holds a B.A. in English and a Masters in Secondary Education and his experience with teaching/facilitating methodologies and psychosocial support methods has been valuably applied in the JFFLS Programme.

Challenges

The experiences shared here draw on work with FAO in the communities of Endola, Ondobe, Etombe and Oshandi in Ohangwena Region of North Central Namibia, and with some early lessons from Caprivi, where the schools are just starting. The work in Northern Namibia started in 2004, although background research began here back in 2002-2003 that led to the schools as a mitigating strategy against the impacts of the HIV/AIDS pandemic.

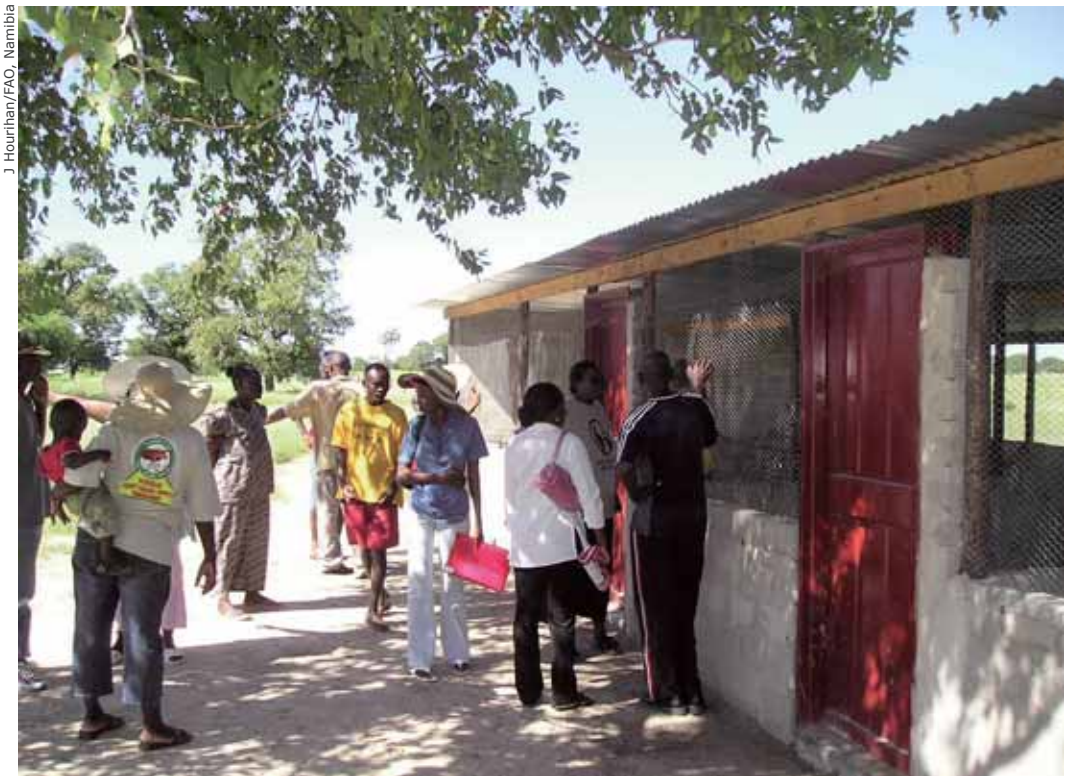
Some of the key challenges we have faced in implementation of JFFLS have been:
• Selecting a site that affords the JFFLS School the opportunity to effectively accommodate and manage ventures.
• Mobilising the community and encouraging them to not only take interest in the project, but also be prepared to take over the project following withdrawal of outside support.
• Establishing a network of resources (material/human) to aid facilitators in their weekly endeavours.
• Training facilitators in working with children and identifying their individual needs.
• Retaining facilitators who understand the JFFLS approach and are committed in their interest of participating in the school.
• Balancing participants' household/formal school responsibilities and JFFLS tasks.
• Obtaining a balance between sharing agricultural skills and life skills knowledge as well as ensuring their integration.
• Documenting the progression of the project and keeping all stakeholders abreast of changes in schemes of work, new initiatives, setbacks encountered, and areas where additional support is desired.
• Establishing a reliable and affordable water access for the JFFLS agriculture field, and preparing for the withdrawal of WFP food support.
• Supporting children and identifying their emotional and physical needs.
• Dealing with the stigma and discrimination children affiliated with the JFFLS may experience.
• Fostering an environment of gender equality.
• Gaining feedback from children, facilitators and the community (i.e. JFFLS successes, failures, concerns, etc.).
• Introducing the community and children to the links between nutrition and infection(s).
• Expanding the project beyond thirty participants.

The Junior Farmer Field Life School (JFFLS) is a project that relies heavily on the commitment of human, physical, and social resources. The most challenging aspect of implementing a JFFLS is making sure the site is appropriate. Effort is made to link the JFFLS to existing structures within the community, and that can be easier said than done. The obstacles we have encountered in the Namibia pilot of the programme and expansion and the relevant lessons learned all relate to initial planning – the first and arguably most crucial of the nine 'Getting Started' steps in the implementation process. Within this first step, the project team is charged with inspiring the community to identify, manage, and control the JFFLS environment, simultaneously building interest, partnership, ownership, and commitment for effective implementation.

J Hourihan/FAO, Namibia

These are hand tools given to the orphans when they finish the one-year programme

J Hourihan/FAO, Namibia



This building houses a chicken and a guinea fowl coop, as well as a space for rabbit rearing, all part of the JFFLS training programme.

Lessons learned

The community must agree on what will work well given the local circumstances (i.e. agro-ecosystem, preferred foods, water availability, livelihood system, possible income-generating enterprises, etc.). Community discussions should focus on what sorts of activities community members feel boys and girls can take on, keeping in mind labour requirements, cost effectiveness, nutrition, length of crop rotation, types of plants, livestock production cycles, marketing opportunities, and agro-ecological and climatic factors. The project should not be launched until these matters are fully understood, examined and identified by the community. *It is very easy to slip from an interactive participatory approach into a consultant participatory routine.*

It is important to listen to community members who have knowledge of grazing patterns, disease prevention in livestock, local varieties of nutritious foods, health and life skills. In order to identify these individuals, it is important to use gender-sensitive participatory methods in community meetings. *Using the knowledge already present in the community effectively links individuals to the project. Using community members during the training of facilitators and fostering a relationship with members prior to the launch of the project are vital.*

During training, facilitators need to be encouraged to seek out individuals and organisations in the community that are already experienced and active, to aid them in areas they are not comfortable facilitating (e.g. agricultural skills, life skills topics,). *It is often difficult for individuals to reach out and request assistance from others. During the pilot phase the project team needs to work closely with facilitators and the community, in composing a network system. This requires much hands on involvement from the coordinators.*

Each boy and girl requires numerous kinds of support from his or her social environment. It is unrealistic to believe that facilitators can address all of the issues experienced the children. However, we can train facilitators on how to identify the problems their boys and girls are facing and provide them with a network of organisations that can aid them in helping the child.

With the experience facilitators gain in working with the JFFLS, they often come to realise their enhanced marketability and seek employment outside of the community. This can be a setback as new facilitators are brought in that are not familiar with the JFFLS approach. It is imperative that a term of agreement is designed for facilitators to clearly inform each of his or her responsibilities and length of service.

The JFFLS should not be an additional responsibility that adds to the already intense schedule of children. The community needs to identify a clear timetable and realistic workload as part of the JFFLS. *This requires facilitators and the JFFLS management committee to keep the community (at large) abreast of activities, taking into consideration formal school calendars and involving participants households in activities, etc.*

Life Skills needs to be incorporated and linked to the agricultural cycle. *Having a Peace Corps Volunteer attached to the project has been a valuable resource for the community. The volunteer has been able to aid in preparing facilitators and the community to address sensitive issues with the participants, which otherwise would have been neglected. This has strengthened the success of the JFFLS in terms of passing on agricultural knowledge.*

A monitoring system must be designed to inform stakeholders of relevant changes in the scope of the JFFLS. During the pilot phase, the project team needs to have a system in place that captures changes, issues, and lessons learned that can be addressed. The coordinators need to be actively involved in all aspects of the project. The pilot phase should be seen as the time to work with the community in mastering the management requirements. The community cannot be left to continue without face-to-face communication with coordinators for weeks at a time.

To maximize the production efforts of the boys and girls participating in the JFFLS, an adequate water supply is key. This might entail sinking bore holes or buying into existing water supplies, but any costs for such water supplies should be covered by surplus production or other funding sources. With expansion, the project team must look at the possibility of establishing one vegetable garden that supports the feeding programme and another area, which would serve as the area where JFFLS participants receive their agricultural practical skills training.

Facilitators need to be introduced to psychosocial support methods and be able to recognise needs of boys and girls. *(If the need for food or shelter are not satisfied to some degree, one can not worry about other needs, such as the need to be loved, respected or successful).*

During community entry and mobilisation, discussions should be held about stigma and discrimination and the community civic responsibility to aid the children of their community. *Again, if the initial planning and mobilisation of the community is not rushed, these issues can be address prior to moving forward. It has been our experience that the main cause of participants being stigmatised or discriminated against is linked to the community at large not being aware of the project needs and objectives.*

In developing curriculum for the JFFLS, the community should be encouraged to ensure that boys and girls approach JFFLS responsibilities equally. Life skills topics should be shared with all participants and not altered to suit boys or girls.

Boys and girls should be encouraged and provided with a 'learning journal'. The journal will serve as a reference for them to document significant lessons learned for the day and their experience with the JFFLS. *The main idea behind the journal is to allow the children to share what they feel they are gaining or not gaining from*

Pilot two hectare field where FAO held the first school for the orphans, using the drip irrigation scheme and hot peppers.

the project. The journal provides a medium for alternative expression.

The importance of meeting immediate food, nutrition and other basic needs will be shared with the community and boys and girls of the JFFLS. The school curriculum will provide information on nutritional care and support for people living with HIV/AIDS. *It is important to ensure that the community understands that the agricultural production is primarily geared to benefit the children and their households, before marketing of crops can be considered.*

Expansion of this approach has to be cautious. Following the pilot, the community may be unable to make food provision for more than thirty participants without exhausting and stressing community resources. It is suggested, throughout the programme, that not all facilitators need to be present at the same time. Thirty participants is a full work load in itself, additional numbers leave the facilitator managing crowd control rather than sharing knowledge. This is in line with a JFFLS principle of fostering an environment where each child receives individual attention according to his or her needs - an element absent in their formal school experience and often in children's households as well.

The JFFLS approach is one that aims to address the needs of children living in areas heavily affected by HIV and AIDS. Children, even those with aspirations beyond farming, come to realise that the farming skills acquired enable them to provide for their families and themselves and to meet household food security needs, while the acquired life skills lay the foundation for them to make more informed decisions regarding their lives.

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H Nsibandze/FAO, Swaziland, 2006

Maswazi in his vegetable garden

A boy's story from Swaziland

By Hlengiwe Nsibandze, FAO Swaziland

Like all sub-Saharan countries, the adverse effects of HIV/AIDS are undermining the future social and economic success in Swaziland. Situated in the heart of rural Swaziland lies the tiny town of Mahlangatja, in the highveld. Hidden away from modernisation and industrialisation, Mahlangatja is home to Maswazi Vilakati. At 18 years he is the oldest amongst a family of six. His father passed away in 1999 due to a /AIDS related illness. His mother sadly died the following year, also of an AIDS related illness. The sad story continues as Maswazi's uncle, who had taken care of him by way of paying for his schooling, also passed away shortly thereafter. This is when the harsh realities of life dawned upon this young man. With no source of income, he was forced to drop out of school in 2004 whilst still attending primary school. He was forced to seek refuge at his grandmother's homestead. Here he stayed with 30 of his grandfather's children who were borne by two wives. These were rough times, as they would sometimes go to bed having eaten dry porridge on its own.

Today Maswazi has a smile on his face thanks to the introduction of the Junior Farmer Field and Life School in Mahlangatja. He has been empowered with life skills and agricultural knowledge through this project. He has learnt to grow vegetables and can identify various crop diseases and prevention methods. His granny is delighted that he is part of such a positive venture as they are now able to have vegetables regularly and excess produce is sold to generate much needed income to cater for other household needs.

Maswazi is proud of his garden and tends to it as early as 9am daily. This has led to other children being interested in the project. The life skills he has gained have taught him to respect his elders and the effects of HIV/AIDS. He feels more needs to be done to educate the population about the pandemic. When asked if he is sexually active, he responded by saying he is too young and that he is instead more interested and focused on becoming a successful largescale farmer. His immediate dream is to have the best garden in his area. He grows cabbages, beetroot, onions, and tomatoes.

The facilitators are proud of Maswazi's progress. The JFFLS was only implemented early this year in Mahlagatja yet, in such a short space of time, it has produced mind bogglingly positive results.

H Nsibandze/FAO, Swaziland, 2006

Maswazi shows off some of the produce of his garden at home with his family

Beneficiary children

MMcGrath/ENN,Namibia, 2006

Austin is 16 year old and lives with his grandmother and extended family. He likes working on his vegetable plot but described water as a big problem, with often a queue forming at breaktime to get water. He waters his vegetables before school at 0830 am and after school. He is growing tomatoes, spinach and cabbage.

MMcGrath/ENN,Namibia, 2006

Cynthia is 20 year old and lives with her grandparents. Her brothers and sisters live with her father. Her plot is doing very well as she waters it often and also uses fallen leaves as compost on the site. She would like to visit other JFFLS sites to see how other children are working.

MMcGrath/ENN,Namibia, 2006

Mary (drawing water at the well) is a 16 year old orphan and lives with her older sister and her sister's husband, her sister's four children (aged 4-14y) and her cousins. She is drawing water for her vegetable plot during her lunch break. Three of her friends, Gertrude (16y), Philomena (13y), and Brenda (15y) who are not OVCs are helping her.

MMcGrath/ENN,Namibia, 2006

James M. Muchila, new patron of the JFFLS at Seim Nujoma Combined School, Kebbe

Starting up JFFLS – Observations from Caprivi region, Namibia

By Marie McGrath, ENN

This article is based on interviews by ENN with Patrick Karanja, FAO Caprivi; Jefitta Chikwanda, WFP Caprivi; James Muchilajm one of the school patrons at Seim Nujoma Combined School, Kebbe, and ENN visits to Seim Nujoma Combined School and Lusese School sites in Caprivi with WFP in August 2006.

Thanks to all of those who shared their experiences of JFFLS, particularly to Jefitta and John from WFP in Namibia who paved the way to visit the sites and who were very entertaining on the way; to both school principals, teachers and JFFLS patrons for opening their doors to us at such short notice, and to the children for their great work and enthusiasm.

MMcGrath/ENN, Namibia, 2006

A group of children (OVCs) at Lusese school who are looking forward to the JFFLS starting.

While Junior Farmer Field and Life Schools (JFFLS) have been running for a number of years in some regions of Namibia[1], in Caprivi, a region in the north of Namibia, it is a new initiative that is being piloted at five school sites. The driving force behind the scheme is the high prevalence of HIV/AIDS in the region (43%, 2003) and the ever-increasing number of orphans and vulnerable children (OVCs). Micro-projects such as this complement the WFP's food distribution programme and the government grant scheme for OVCs (see field article in this issue). The problem of OVCs has become increasingly visible with one-third to a half of children in some schools meeting the OVC criteria.

Choosing pilot sites

In establishing JFFLS in Caprivi, the first challenge was to choose in which of the six constituencies the JFFLS would be located. A number of initial meetings were held with key stakeholders to establish criteria for the sites. The final choice to locate the pilot schools (Kabbe, Kongola, Katima Rurah and Linyanti) in four constituencies was based on access to water, the number of orphans and accessibility of the site. There were heated discussions amongst stakeholders since some argued that areas that were less accessible were often neglected and were particularly in need. However as a pilot project it was considered wise to start with accessible sites, and develop the programme from this.

Following identification of the sites, the schools have now set to preparing and clearing the land. Much of the clearance is carried out by the OVCs and their carers, who are 'paid' in Food For Work by WFP – the rate is based on the number of children under the responsibility of the carer. With the land cleared, the priority is to get water supplies established. Training for facilitators was scheduled for August, which will be paid in the form of Food for Training by WFP. Three facilitators are assigned to each school.

Some of the stakeholders feel that the JFFLS should be available to all pupils in a school, not just those who are identified as OVCs. They argue that the inputs to the scheme are minimal and only targeting OVCs risks setting them apart as different from other children at the school. Others feel that the resources should be targeted at OVCs and that this can be healthily accommodated within schools without exposing OVCs to prejudice.

So far, the concept of JFFLS has been well received in Caprivi. The government already runs school feeding programmes so there is good knowledge of stocking food, some storage facility, and there is a good understanding of coming together, cooking for children and cooperation.

Seim Nujoma Combined School, Kebbe

One of the sites visited by ENN was Seim Nujoma Combined School, Kebbe. The school here already had a home garden so with minimal inputs and fuelled by lots of enthusiasm from the schoolteachers and the children, the JFFLS has already begun ahead of schedule. Water supply is the input they are eagerly awaiting as the children currently rely on drawing water from an open well to water their vegetables.

Interview with school patron

One of the patrons of the JFFS, James Muchilajm, described his involvement with the project. For 4 years, James has taught History and English at the school and recently became one of the patrons for the JFFLS. He sees his role as patron to support the children, build up their confidence, and counsel them that they are not isolated but part of the world. In the school, he estimates that roughly 111 of the 345 children who attend are OVCs.

He currently takes three classes per week of 40 minutes teaching life skills to OVCs from the age of nine years or so. The children are taught how to take care of themselves and to take care of their clothes, how to mind their homes and to help their parent or caregivers at home. He describes how they learn in "fun ways", for example they cut pictures from magazines and clothe paper people for the winter. They are also given ideas on how to make additional pocket money in holiday time, like working in gardens or selling produce from gardens, so that they are not completely reliant on parents. As part of life skills lessons, they are taught about prevention of sexually transmitted diseases and offered guidance on careers and subject choice.

Parents and caregivers assist children with their vegetable plots. The current big problem is water as there is only underground water available at the school site and this has to be drawn up in buckets from a well.

He describes the classes as very interactive with great interest from the children. The children ask him how did he become a teacher, and "how long he was under his fathers care" – meaning at what age did his father die. He tells them he too is an orphan as his father died when he was 26 years and he uses examples of famous people who have lost a parent when young. He feels you must be positive and show these children that life goes on, no matter what has happened to them.

[1] See field article this issue

Lusese School

Another school site chosen, Lusese, is busy preparing for the JFFLS. From the day it was chosen the community began clearing the land, and are now making compost and gathering manure. The Ministry of Works and Maintenance are scheduled to soon connect water tanks to already existing waterpipes. This is particularly useful to the community as Lusese is also a relocation centre where people move to when large areas of Caprivi become flooded during the rainy season.

At Lusese they have established the committees of the JFFLS, and chosen a role model/pioneer. They are now eagerly waiting to start lessons and get the materials they need. They have identified a warehouse to store food they produce and also those who can cook food produced. The school principal, Steven Siseho, describes how there are about 70 OVCs identified in the school but the school is encouraging all the children to join in, as they consider it is a skills capitalisation that all will benefit from.

The grand scheme is that once the JFFLS begin producing food, they can sell it and the project will become self-sustaining – ultimately this is the exit strategy. Along with this they will acquire skills in cooking, HIV and AIDS awareness and life skills, and hopefully forge relationships with each other in the community where they will continue to work and live after they leave school.

For further information on the JFFLS in Namibia, contact: Baton Osmani, WFP Namibia, email: Baton.Osmani@wfp.org and James Breen, FAO Southern Africa, email: James.Breen@fao.org

MMcGrath/ENN, Namibia, 2006

Steven Siseho, Principal at Lusese school

Research

Diarrhoea risk associated with not breastfeeding in Botswana

Summary of report and presentation[1]

Between November 2005 and February 2006, there were unusually heavy rains and flooding in Botswana, and by January 2006, there was an increase in infant diarrhoea and mortality. By February, the number of cases and deaths were overwhelming hospitals throughout the country. In the first quarter of 2006, in just twelve health districts, there were 22,500 cases of diarrhoea, with 470 deaths in children under five (compared to 9,166 cases and 21 deaths for the entire country in the first quarter of 2005).

The Ministry of Health (MOH) had difficulties attributing the outbreak to any one pathogen, but most of the cases appeared to be associated with bottle feeding, Assistance from the US Centres for Disease Control (CDC) was sought and the results of the CDC/MOH investigation were presented at the PEPFAR (President's Emergency Plan for AIDS Relief) meeting in Durban, 2006. The main findings and recommendations are shared here.

In Botswana, the HIV prevalence in pregnant women is 33.4% (2005), The national Prevention of Mother to Child Transmission (PMTCT) programme started in 1999 providing:

- Anti-retroviral therapy for women with CD4<200
- Azothioprine (AZT) for 12 weeks to mothers, 4 weeks to infants
- Standard dose Nevarapine for mothers and infants
- Free infant formula for 12 months. Since 2004 there has been a high uptake, with 80% receiving AZT. According to recent data HIV transmission to infants is 7%[2]. All HIV-positive women are advised to formula feed, and 63% of HIV-positive women used formula in 2005.

Main Findings

The CDC found widespread water contamination in four northern districts of the country. The public water supply, which has long been considered safe, was contaminated in 26 villages tested. A variety of pathogens causing the outbreak were identified, including cryptosporidium, enteropathogenic e coli (classic 'bottle diarrhoea') and salmonella, amongst others.

Amongst HIV negative mothers or mothers of unknown HIV status, a CDC survey found that 20% of infants had been weaned from the breast before the age of six 6 months. Amongst HIV positive mothers, 63% of infants were formula fed from birth. Overall 35% of infants under 6 months old were not breastfeeding.

The CDC investigators identified a variety of risk factors (adjusted for socio-economic status, age, and mother's HIV status) that were associated with children with diarrhoea presenting for acute hospital care, such as caregivers not washing their hands (2.5 Adjusted Odd Ratio (AOR) (95% CI 1.1-5.0), standing water near home (AOR 2.6 (1.1-6.3), overflowing latrines (AOR 3.0 (1.1-8.6), storing drinking water (AOR 3.7 (1.5-9.1). However, the most significant risk factor was not breastfeeding (AOR 50 (95% CI 4.5-100).

The CDC conducted a closer evaluation of 154 children hospitalised for diarrhoea. Most (96%) of the children were under 2 years of age, median age 9 months. They found that:

- The majority (93%) were not breastfeeding and more than half (51%) of the infants were growing poorly before this illness.
- Among the hospitalised children, 18% were HIV-infected. Among infants of HIV positive mothers (65%, where 94% tested), 27% were HIV infected (85% tested).
- Thirty-five per cent of children had suffered from diarrhoea for >= 2 weeks, and 43% had been discharged and then readmitted at least once.
- Many developed severe acute malnutrition during or after diarrhoea; 42% developed marasmus and 20% developed kwashiorkor. Most had been growing poorly before the diarrhoea outbreak but had not been adequately managed despite monthly weighing at clinics.
- Twenty-one per cent of the children admitted died (32/154). Risk factors for death included not being breastfed (OR 8.5, p=0.04) and kwashiorkor (OR 2.6, p=0.03).
- HIV status (maternal or infant), socio-economic status, water source, urban versus rural residence and pathogen were not associated with the risk of death.

Among the HIV-positive mothers, problems were reported with adequate and consistent formula supply. Although most were given the appropriate amount of formula at birth, only 51% received the amount of formula they should have received before their illness. Mothers reported returning to clinic on many occasions each month but were still not given adequate formula.

The CDC investigators consider the true extent of the mortality from this outbreak remains unknown but may exceed the figures reported above, since many infants died outside of the health facilities. In three districts alone, there were 547 excess deaths reported (four times the historical under fives mortality rate). In one village visited, 30% of their formula-fed babies (and no other babies) died during the outbreak. Among formula-fed newborns CDC started following in January before the outbreak, preliminary data indicate 10% dead when re-visited at age 3-4 months.

Conclusions

On the strength of these findings, CDC has recommended a formula policy review and external consultation in Botswana. Other feeding strategies may promote higher child survival, for example women who are exclusively breastfeeding, have high CD4, or take ARV therapy have low risk of HIV transmission. Early weaning among HIV-negative women was common and breastfeeding promotion needs strengthening. The investigators reiterate that it is essential to ensure formula-fed infants have enough formula and safe water, and there needs to be improved training for health staff and mothers in nutrition and management of diarrhoea. They also call for a study of the impact of point-of-use water treatment, safe water vessels, soap and handwashing promotion.

The investigators also flag the implications for other programmes. Programmes offering formula should ensure clean water, uninterrupted supply of formula, growth monitoring, and nutrition counselling. Health staff should be taught that formula fed infants are at risk, what to look for, and how to intervene.

The outbreak reinforces the use of the WHO criteria for replacement feeding (acceptable, feasible, affordable, sustainable, and safe). However it has highlighted that 'safe' cannot be assumed. The investigators strongly recommend that new programmes should verify that formula saves lives in their context before widespread implementation.

[1] See http://www.blsmeetings.net/implementhiv2006/TracyCreek_files/frame.htm. Also included in HATIP #74, 12 Sept 2006, http://www.aidsmap.com/cms1177384.asp

[2] Mashi study. See summary this issue of Field Exchange.

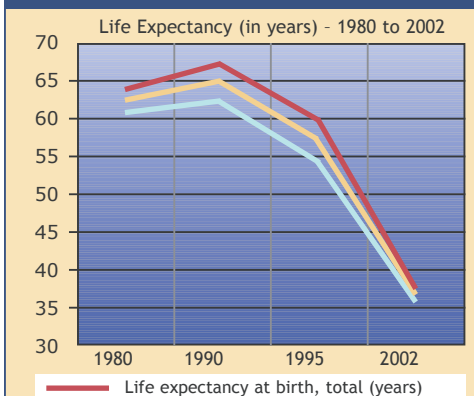
Research

The effects of HIV on Botswana's development progress

By Siddharth Krishnaswamy

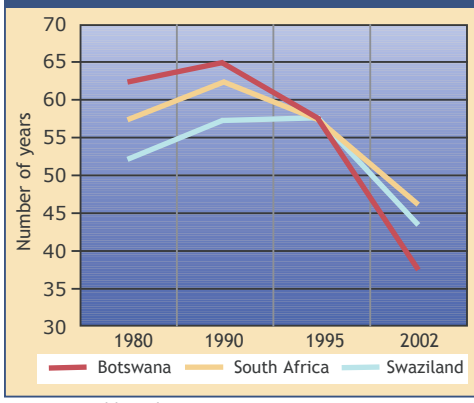
Siddharth was a part of the Vulnerability & Mapping Unit (VAM) of the WFP. Prior to this he worked for an international NGO in Northern Uganda. He holds an MBA and a Master's in Development from Cornell University, USA. He is currently completing coursework towards his Ph.D.

Figure 1: A Comparison of Male and Female Life Expectancy in years (1980 - 2002)



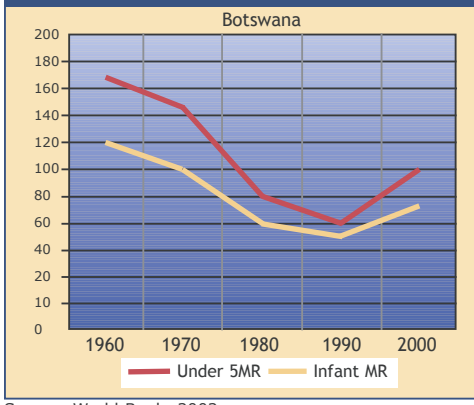
Source: World Bank, 2002

Figure 2: A Comparison of Total Life Expectancy of Botswana, South Africa and Swaziland (1980 - 2002)



Source: World Bank, 2002

Figure 3: A Comparison of Botswana's Infant and Under-5 Mortality Rates (MR) (1960 - 2002)



Source: World Bank, 2002

This work is a condensed version of a working paper written for the WFP. The author wishes to thank Mr. Arif Hussein & Ms. Joyce Luma at the WFP. Without their insight, comments and input this paper would not have been possible. Needless to say, errors if any, belong solely to the author.

This paper attempts to study the impact of HIV on Botswana's development. This is followed by an evaluation of government policy. In order to gauge the impact of HIV, Botswana's development has been divided into two periods - 1970 to the early 1990s and from the early 1990s to 2002. Finally, based on the above data, the paper offers a hypothesis on the country's present HIV crisis.

Performance of Adult Health Indicators

Adult Mortality Rate

In 1970 in Botswana the adult mortality rate (per 1000) was 395 for women and 472 for men. By 1980, female and male adult mortality had fallen to 278 and 341 respectively - an improvement of approximately 29% in the space of one decade. By contrast, South Africa would take nearly twice as long (1997) to reduce the adult mortality rate by 20 %. However between 1980 and 1997, both male and female life expectancy declined in Botswana (61% and 51% respectively), with an even steeper decline for women between 1997 and 2002 (see table 1).

Life Expectancy at Birth

Mirroring the adult mortality trend, life expectancy at birth for females improved from an average of 57 years in 1970 to 67 years in 1992 and for males from 53 years to 62 years. However, between 1995 and 2002 total life expectancy fell by 36% (see figure 1). Thus, it can be seen that not only were all the gains of the 1970s and 80s nullified, but the life expectancy of a man or women in 2002 was roughly 20 years less than it had been in 1970.

A comparison of life expectancy rates (figure 2) of Botswana's neighbours (South Africa and Swaziland) proves that HIV had an adverse impact on these countries as well. However, the rate of decrease in life expectancy is markedly more pronounced in Botswana as compared to her neighbours.

Performance of Child Health / Nutrition Indicators

Although a similar decline in child health indicators in the period 1970 – 2002 is to be expected, this has not occurred.

Infant Mortality Rate and Under 5 Mortality Rate

Between 1970 and 1990, Botswana reduced infant mortality by more than 50% – from 99 deaths per every 1000 in 1970 to 45 per 1000 in 1990. There was a slight reversal in the next 5 years – reaching 50 deaths per 1000 in 1995. In the period between 1996 and 2000, there was a further and sharp increase, resulting in infant mortality being reported at 74 in 2002. The net effect of this was that, in 30 years, Botswana had reduced infant mortality by approximately 25% rather than the pre-1990 achievement of 50%. The Under-5 Mortality Rate had been reduced by 28% in 2002 compared to 1970 (see figure 3)

Other Indicators

There has been a 36% increase in diphtheria immunisations in the past two decades, from approximately 71% of 12-23 month old children in 1980 to 97% reported immunisation of this age-group in 2002. Similarly, immunisation rate against measles had increased from 60% to 90% of all children (between the ages of 12 – 23 months) by 2002 – an increase of 43%.

Botswana has made steady and constant progress in reducing child malnutrition. There has been a 21% reduction in prevalence of stunting (moderate and severe) amongst children under 5 years from 1996 to 2001, while prevalence of underweight (moderate) amongst children below the age of 5 has more than halved between 1984 and 2002.

HIV / AIDS

Botswana has the second highest HIV prevalence rate in the world at 37.3% (see table 2). Paradoxically, awareness of the disease and the use of condoms are widespread. More than 90% of the population aged between 15 – 24 years are aware of the importance of condoms. However, a low percentage of the population have comprehensive knowledge about HIV (see table 3).

Government Policy and Health Expenditure

Government expenditure on health has increased substantially in the past decade, with a 63% increase in total per capita expenditure on health in the 4 years between 1998 and 2002,

Table 1: Percentage Change in Adult Mortality Rates (1970 - 2002)

	1970 - 1980	1980 - 1997	1997 - 2002	1970 - 2002
Adult mortality rate, female (per 1,000)	-29.6%	+ 51%	+ 88%	+ 100 %
Adult mortality rate, male (per 1,000)	-27.7%	+ 61%	+ 50%	+ 74 %
Adult mortality rate, male and female (per 1,000)				+ 88 %

Source: World Bank, 2002

Table 2: Prevalence of HIV / AIDS in 2003

Botswana - HIV and AIDS estimates, end 2003	
Adult (15-49y) HIV prevalence rate	37.3 % (range: 35.5%-39.1%)
Adults (15-49y) living with HIV	330,000 (range: 310,000-340,000)
Adults and children (0-49y) living with HIV	350,000 (range: 330,000-380,000)
Women (15-49y) living with HIV	190,000 (range: 180,000-190,000)
AIDS deaths (adults and children) in 2003	33,000 (range: 25,000-43,000)

Source: Report on the global AIDS epidemic (UNAIDS), 2004

Table 3: Awareness and knowledge of HIV / AIDS amongst adults in Botswana

	%
Men aged 15-24y who know that a healthy-looking person can transmit HIV	76 %
Women aged 15-24y who know that a healthy-looking person can transmit HIV	81%
Men aged 15-24y who know that a person can protect himself from HIV infection by consistent condom use	89%
Women aged 15-24y who know that a person can protect himself from HIV infection by consistent condom use	93%
Men aged 15-24y with comprehensive correct knowledge of HIV/AIDS	33%
Women aged 15-24y with comprehensive correct knowledge of HIV/AIDS	40%

Source: UNICEF-UNAIDS-WHO, 2001

Table 4: Total and Public Health Expenditure in Botswana (1990 - 2000)

	1990	1995	2000
Total health expenditure (percentage of GDP)	3	5.4	6
Public health expenditure (percentage of GDP)	1.7	2.8	3.8
Total health expenditure per capita (current US$)	89	168	191

Source: World Bank, 2003

and programming has moved from a narrow focus on blood screening to a broader portfolio concerned with the prevention of transmission of the disease.

In 1990, total health expenditure in Botswana was 3% GDP, increasing to 6% of GDP in 2000 (see table 4). Similarly, public health spending also doubled from 1.7% to 3.8 % of GDP, similar to the mean for upper middle-income countries (3.3 per cent of GDP). In per capita terms, total expenditure on healthcare in Botswana was US$191 per capita in 2000. Compared with other African counties, Botswana's total public expenditure on health appears to be one of the highest in Southern Africa (figure 5) - about 30 times the level of expenditure in the other five countries.

As a percentage of GDP, the HIV/AIDS expenditure in Botswana is very high at one per cent of GDP[1]. The median HIV/AIDS expenditure is US$0.9 per capita. If one considers only the infected population, then Botswana spends $51.42 per person living with HIV/AIDS (PLWHA) and the other countries spend below US$15.

Discussion

The data presented above appears confusing and contradictory.

- The country has one of the highest HIV prevalence rates in the world, yet the Government of Botswana is one of the biggest spenders on health and HIV prevention in Southern Africa.
- On most development indicators excluding adult health, Botswana has made progress and indicators of child health and nutrition are relatively sound.

Analysing the data in figure 5 one can argue that Botswana's HIV problem and its resulting impact on development is not because of lack of commitment or action on the government's part but results from crucial delays in government action.

Little change or increase in government spending (relative to later years) on HIV/AIDS was realised during the period 1990 – 97. Although expenditure increased by 162 percent from 1997 onwards, by this time, Botswana's development was already in steep decline (see figure 6). Arguably, if government expenditure and activity on AIDS had been initiated a few years earlier – 1995 instead of 1998/99 - then Botswana's HIV problem would probably have not been so dire.

It can also be hypothesised that the fact that overall child health and nutrition in Botswana is better than expected is a direct result of government spending/development programmes since 1997.

Indeed indicators that measure the nutritional status and wellbeing of children in 2003/04 use subjects born after 1997. By this period, the government was actively involved in addressing not just the HIV problem but also dedicated to increasing public expenditure on health. This manifested itself in the introduction of various programmes ('Education for young people', 'Condom distribution and education', 'Prevention of mother to child transmission of HIV (PMTCT)'. The Government of Botswana also initiated programmes specifically for women and girls, such as psychosocial support, especially for home based female caregivers, education on HIV/AIDS gender based violence, and training on HIV/AIDS and human rights. There are also government programmes for orphans and vulnerable children. Furthermore, the government has announced plans to provide free anti-retroviral therapy to any citizen tested positive for AIDS (UNICEF).

Many of the current programmes in place expressly target maternal and child health. It could be argued that under-5 and infant mortality rates are very high, primarily due to mother to child transmission[2] while other indicators such as stunting, wasting, and low birth weight have all shown steady improvement over the past 3 decades.

In conclusion, it appears that while Botswana's HIV problem is dire, the silver lining is that children's health status is markedly better. The government is clearly concentrating on improving and maintaining child nutrition. Programmes such as school feeding and support to orphans are evidence of this. More importantly, all the data underline the effectiveness of this commitment. Unfortunately adult health is a different story. With hindsight it could be argued that had the government commenced its present comprehensive programme in 1994/5 rather than 1997/8, the situation now would be far better. Present projections imply that mortality rates will continue to rise till 2007 before levelling off (figure 7). This slowing of mortality rates in 2008 would be a result of the present actions and initiatives of the government.

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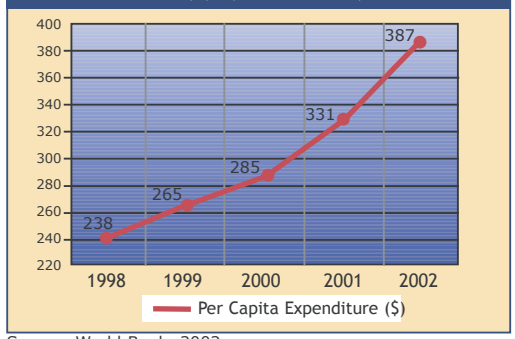
[1] A Comparative Analysis of the financing of HIV/AIDS programmes, 2003

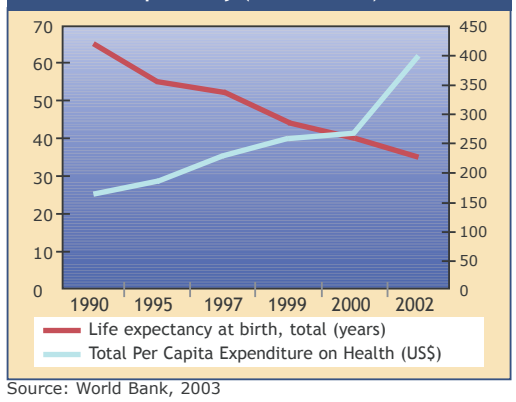
[0] Infant feeding practices are also a key consideration when investigating infant mortality rates. See two research pieces in this issue that look at infant feeding strategies and morbidity and mortality outcomes in Botswana. (Eds)

Figure 4: Per Capita Total Expenditure on Health ($), (1998 - 2002)



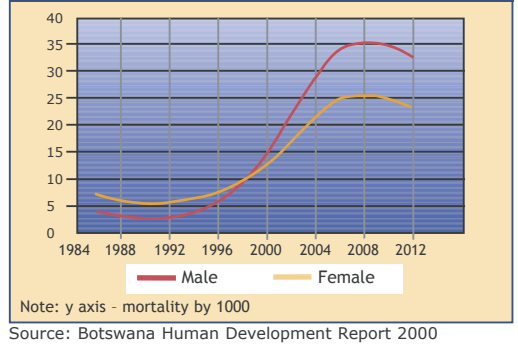
Source: World Bank, 2002

Figure 6: Comparison of Botswana's Per Capita Expenditure on Health and Life Expectancy (1990 - 2002)



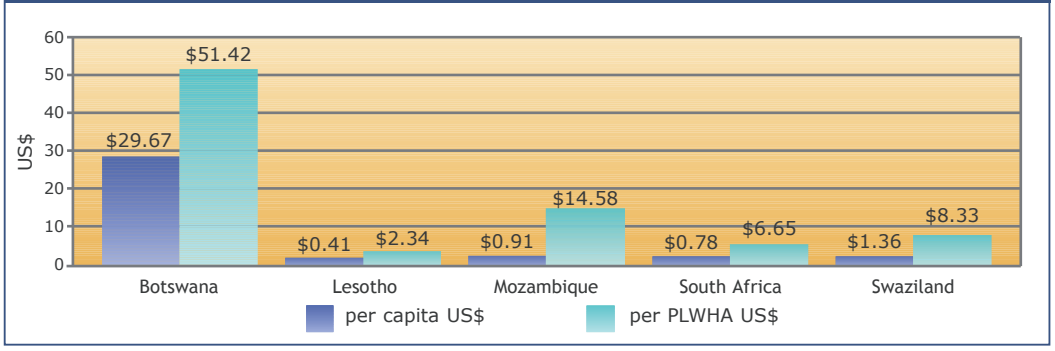
Source: World Bank, 2003

Figure 7: Projection of Adult Mortality Rates (age 15-49) to 2010



Source: Botswana Human Development Report 2000

Figure 5: Government Expenditure on HIV / AIDS per capita and per PLWHA (2001)



Source: A Comparative Analysis of the financing of HIV / AIDS programmes, 2003. Published by the Human Sciences Research Council & funded by the Kellogg Foundation.

Research

Infant feeding strategies and PMTCT – Mashi trial from Botswana

Summary of published research[1]

A recently published paper compares the efficacy and safety of two infant feeding strategies for the prevention of postnatal mother-to-child HIV transmission. Conducted in Botswana, the Mashi (milk) Study was designed as a randomised 2x2 factorial clinical trial, to compare interventions for both preventing perinatal HIV transmission (part 1) and reducing postnatal HIV infection and mortality (Part 2). The findings from Part 2 are summarised here.

Between March 27, 2001, and October 29, 2003, 1200 HIV-positive pregnant women were randomised from four district hospitals in Southern Botswana (located in one city, one town and two villages). Amongst the 11,388 women originally screened, the prevalence of HIV was 33% of whom 30% participated in the trial. All of the mothers received zidovudine from 34 weeks' gestation and during labour. Mothers and infants were randomised to receive single-dose nevirapine or placebo.

Feeding strategies

Infants were randomised to 6 months of breastfeeding plus prophylactic infant zidovudine (breastfed plus zidovudine), or formula feeding plus 1 month of infant zidovudine (formula fed). In the breastfed group, exclusive breastfeeding was recommended (as per Botswana guidelines), however non-exclusive breastfeeding was not considered non-adherence to breastfeeding. In the breastfeeding group, mothers were instructed to begin and complete weaning between 5 and 6 months of age and free infant formula was provided from 5 to 12 months of age. Mothers randomised to the formula-fed group were supplied with formula for 12 months. All mothers were educated about safe formula preparation and administration, and provided with high-protein food for infants from 6 through to 12 months of age.

Adherence to infant feeding strategy and zidovudine was assessed by maternal report at each scheduled visit using standardized questionnaires. For zidovudine, adherence was assessed by collecting information on study drug intake and the primary reason for any missed doses. For infant feeding strategy, adherence was assessed by questioning mothers on food and fluid intakes, frequency of breastfeeding and water source since the previous visit.

Infants were evaluated at birth, monthly until age 7 months, at age 9 months, then every third month until 18 months of age. Primary efficacy (HIV infection by age 7 months and HIV-free survival by age 18 months) and safety (occurrence of infant adverse events by 7 months of age) end points were evaluated in 1179 infants.

Main findings

Of the 1200 women, 1193 reached delivery resulting in 591 and 588 live first-born infants in the formula-fed and breastfed plus zidovudine groups, respectively. Maternal and infant characteristics were well balanced between both groups (P>0.05) for all comparisons other than sanitation facilities (P=0.04)

HIV infection rates and mortality

The 7-month HIV infection rates were 5.6% (n=32) in the formula-fed group and 9.0% (n=51) infants in the breastfed plus zidovudine group (P=0.04; 95% confidence interval (CI) for difference, –6.4% to –0.4%). Cumulative mortality or HIV infection rates at 18 months were 13.9% in the formula fed group (n=80) and 15.1% in the breastfed plus zidovudine group (n=86) (P=0.60; 95% CI, –5.3% to 2.9%).

The cumulative infant mortality at 7 months was significantly higher for the formula fed group than for the breastfed plus zidovudine group (9.3% vs 4.9%; P=0.003). However this difference diminished beyond month 7, so that by the age of 18 months there was no significant difference (P=0.21).

One hundred and fourteen infants died after birth, 10.7% (63/591) from the formula-fed group and 8.7% (51/588) from the breastfed plus zidovudine group. Of the 77 infants who died with a HIV negative status, over half (58%) had a negative HIV test result within the 2 weeks preceding death, and the vast majority (95%) had a negative HIV test result within the 3 months preceding death. A total of 5 infants died before an initial PCR result was obtained. The remaining 32 infant deaths were among babies who had tested HIV positive - 15 from the formula-fed group and 17 from the breastfed plus zidovudine group. The most common causes of infant death were diarrhoea and pneumonia. The deaths in the breastfed plus zidovudine group were more likely to be in HIV-infected infants and at older ages as compared with the deaths in the formula-fed group.

The morbidity and mortality rates amongst formula fed infants are greater than those reported previously in another randomised trial[2] in Nairobi, Kenya which showed a similar 2-year mortality rate but a significantly lower HIV-free survival rate in the breastfeeding group. The authors suggest this difference may be explained by the access to clean municipal water that the Nairobi women had.

Adherence to drug regimen and feeding strategy

Of the 1179 live-born babies, 1172 (99.4%) initiated zidovudine following birth. The median duration of infant zidovudine was 5.9 months in the breastfed plus zidovudine group, and 84% (479 of 567) of responding mothers in the breastfed plus zidovudine group reported never missing 1 or more full days of infant zidovudine. In the formula fed group, 95% (562 of 591) received at least 2 weeks dosage of zidovudine.

Full adherence to exclusive formula feeding was self-reported by 93% of mothers in the formula-fed group. Three infants in the formula-fed group were infected between months 1 and 7, presumably because they were exposed to breast milk.

Among mothers in the breastfed plus zidovudine group, self-reported adherence to exclusive breastfeeding was 57.1% at month 1, 31.3% at month 3, and 17.5% at month 5. Predominant breastfeeding was practiced by 21.2%, 20.1%, and 7.5% of mothers by 1 month, 3 months, and 5 months, respectively and mixed breastfeeding was practiced by 21.7%, 48.6%, and 75.0% for the same age groups.

The authors suggest that the low rates of exclusive breastfeeding may have influenced the results, if mixed or non-exclusive breastfeeding were associated with increased risk of HIV transmission as previously reported by Coutsoudis et al[3]. The transmission rates due to breastmilk were similar to other studies[4] whose mother's breastfed and received short course zidovudine.

HIV-free survival

A total of 166 infants died or became HIV positive through the 18-month visit. This corresponded to a cumulative 18-month rate of HIV infection or mortality of 13.9% (n=80) in the formula fed group and 15.1% (n=86) in the breastfed plus zidovudine groups (P=0.60; 95% CI for difference, –5.3% to 2.9%).

Although virtually all women in the breastfed plus zidovudine group breastfed, many did not do so exclusively, despite educational efforts.

Conclusions

Breastfeeding with zidovudine prophylaxis was not as effective as formula feeding in preventing postnatal HIV transmission, but was associated with a lower mortality rate at 7 months. Both strategies had comparable HIV-free survival at 18 months. The study revealed relatively high morbidity and mortality rates associated with formula feeding among infants of HIV-infected mothers, with deaths largely due to pneumonia and diarrhoea. This demonstrates the risk of formula feeding to infants in sub-Saharan Africa, and the need for studies of alternative strategies. The authors highlight the need for a careful assessment of the local management of childhood illnesses (mostly diarrhoeal and respiratory diseases) before the implementation of a formula feeding strategy for the prevention of mother-to-child transmission of HIV in developing countries.

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[1] Thior et al (2006). Breastfeeding Plus Infant Zidovudine Prophylaxis for 6 Months vs Formula Feeding Plus Infant Zidovudine for 1 Month to Reduce Mother-to-Child HIV Transmission in Botswana A Randomised Trial: The Mashi Study. JAMA, 296: 7, 794-805

[2] Nduati R, John G, Mbori-Ngacha D, et al. Effect of breastfeeding and formula feeding on transmission of HIV-1. JAMA. 2000;283:1167-1174.

[3] Coutsoudis A, Pillay K, Spooner E, Kuhn L, Coovadia HM. Influence of infant-feeding patterns on early mother-to-child transmission of HIV-1 in Durban, South Africa. Lancet. 1999;354:471-476. and Coutsoudis A. Influence of infant feeding patterns on early mother-to-child transmission of HIV-1 in Durban, South Africa. Ann N Y Acad Sci. 2000;918: 136-144.

[4] Dabis F, Msellati P, Meda N, et al. 6-month efficacy, tolerance, and acceptability of a short regimen of oral zidovudine to reduce vertical transmission of HIV in breastfed children in Cote d'Ivoire and Burkina Faso. Lancet. 1999;353:786-792.

Research

Counselling on infant feeding choice:

Some practical realities from South Africa

By Tanya Doherty (pictured), Mickey Chopra and Mike Colvin

T Doherty, S Africa, 2005

A health worker interviewing a mother on a home visit

Tanya is currently a senior scientist at the Health Systems Trust and Medical Research Council in Capetown, South Africa. For the past five years, her research has focused on PMTCT of HIV involving national evaluations of programme coverage, qualitative investigation of infant feeding, and a multi-site cohort study assessing HIV transmission. Her main area of interest is implementation of infant feeding recommendations in operational settings.

Mickey Chopra is Director of the Health Systems Research Group of the South Africa Medical Research Council.

Mark Colvin is a Director of the Centre for Aids Development, Research and Evaluation (CADRE), and is based in Durban, South Africa.

Avoiding transmission of HIV from mother to child after birth has become one of the greatest challenges in HIV prevention. Approaches to date to reduce or prevent postnatal transmission through breastfeeding have included the avoidance of all breastfeeding through the use of exclusive replacement feeds, or exclusive breastfeeding for a limited duration with early and rapid cessation of breastfeeding as soon as it is feasible (see box).

Implications of infant feeding choice

Programmes for prevention of mother to child transmission (MTCT) need to focus not only on preventing HIV transmission but also on improving child survival. Exclusive breastfeeding has been identified as the single most effective way of saving the lives of millions of young children in developing countries[1], a fact that is supported by international policy[2] and operational guidance for emergency contexts[3]. Although most infants in sub-Saharan Africa are breastfed, rates of exclusive breastfeeding are low as early introduction of liquids is a common practice. It is against this background that infant feeding recommendations for women with HIV are being implemented. If women with HIV are to succeed in practising exclusive infant feeding, then improvements in infant feeding practices in the general population are necessary to ensure that exclusive breastfeeding is the norm rather than an exception.

A recent study[4] from South Africa has confirmed earlier findings[5] that *exclusive* breastfeeding results in a lower rate of postnatal HIV transmission compared to mixed feeding. This study, undertaken in a rural area in KwaZulu-Natal province, found a cumulative postnatal HIV transmission risk of 4.04% after five months of exclusive breastfeeding. Infants who were fed both breast and formula milk at age twelve weeks were twice as likely as exclusively breastfed infants to be infected (HR 1.82, 95% CI: 0.98-3.36).

Recent data from Mozambique[6] and the ZVITAMBO study in Zimbabwe[7] have highlighted the dangers of early cessation of breastfeeding under conditions of underlying poor socio-economic status and food insecurity. In Mozambique, commonly consumed, locally available foods would not meet the nutritional needs of non-breastfed infants between 6-12 months of age and replacing breastmilk with local foods would double the estimated daily cost of feeding a 6-12 month infant. In Zimbabwe, most of the infant diets only met 58% of the infant's energy needs and were insufficient in animal milks or formula.

Replacement feeding means feeding an infant a diet that provides the necessary nutrients while receiving no breastmilk. Recent research and experiences from Botswana (see research summaries in this issue of Field Exchange) highlight the risks of formula feeding and reinforce the importance of individual assessments of home and environmental circumstances in the process of decision-making. In low and middle income countries and in emergency contexts, replacement feeding is unlikely to be the most appropriate choice for HIV positive women due to socio-economic environments that are not conducive to safe replacement feeding.

The importance of counselling

Given the implications that infant feeding choice may have for child survival, infant feeding counselling and support is one of the most important components of PMTCT programmes.

In many countries, shortcomings in the implementation of the WHO guidelines have been found. Inadequate training of health workers, particularly infant feeding counsellors, about the relative risks associated with infant feeding in the context of HIV, lack of culturally sensitive counselling tools, and the stigma associated with replacement feeding, all make appropriate and effective infant feeding counselling difficult.

Within the context of busy antenatal clinics, it is not surprising that the quality of infant feeding counselling has generally been found to be poor.

One intervention that has been shown in a variety of settings to increase exclusive breastfeeding is peer counselling. Peer counselling is a proven cost-effective approach for changing behaviour. Community-based interventions using local women's groups have also been shown to change behaviour in relation to infant feeding and birth outcomes.

Investigation of Infant feeding choice and practices in South Africa

Due to the poor follow up of HIV positive women through routine public health services

Guidelines for infant feeding and HIV/AIDS

Current UN guidelines state when replacement feeding is acceptable, feasible, affordable, sustainable and safe, avoidance of all breastfeeding by HIV-infected mothers is recommended. Otherwise, exclusive breastfeeding is recommended during the first months of life and should then be discontinued as soon as the above conditions are met. *HIV and Infant Feeding. A guide for healthcare managers and supervisors. Geneva, World Health Organization, 2003.*

"In environments where there is a high prevalence of HIV infection, the risk to infants of being infected with HIV through breastfeeding should be carefully weighed against the risk of their becoming seriously ill or dying from other causes if they are not breastefed".
Guiding principles for feeding infants and young children during emergencies. WHO, Geneva. 2003

[1] Black RE, Morris SS, Bryce J. Where and why are 10 million children dying every year? *Lancet* 2003;361(9376):2226-34. and Jones G, Steketee RW, Black RE, Bhutta ZA, Morris SS, Bellagio Child Survival Study G. How many child deaths can we prevent this year? *Lancet* 2003;362(9377):65-71.

[2] UNICEF/WHO. Global strategy for infant and young child feeding. Geneva: World Health Organisation, 2003.

[3] Operational Guidance on Infant and Young Child Feeding in Emergencies. For Emergency Relief Staff and Programme Managers. Version 2.0, May 2006. Avaialble from the ENN and at http://www.ennonline.net

[4] Rollins N. HIV transmission and mortality associated with exclusive breastfeeding: implications for counselling HIV-infected women. *International AIDS Conference*. Toronto: PATH Satellite Session, 2006

[5] Coutsoudis A, Pillay K, Spooner E, Kuhn L, Coovadia HM. Influence of infant-feeding patterns on early mother-to-child transmission of HIV-1 in Durban, South Africa: a prospective cohort study. South African Vitamin A Study Group. *Lancet* 1999;354(9177):471-6.
Iliff PJ, Piwoz EG, Tavengwa NV, Zunguza CD, Marinda ET, Nathoo KJ, et al. Early exclusive breastfeeding reduces the risk of postnatal HIV-1 transmission and increases HIV-free survival. *AIDS* 2005;19(7):699-708.

[6] Johnson W, Alons C, Fidalgo L, Piwoz E, Kahn S, Macombe A, et al. The challenge of providing adequate infant nutrition following early breastfeeding cessation by HIV-positive, food insecure Mozambican mothers. *International AIDS Conference.* Toronto, 2006.

[7] Humphrey J. Why consider breastfeeding cessation at six months for HIV positive mothers? *International AIDS Conference.* Toronto: PATH, 2006

Figure 1: Infant feeding intentions of HIV positive women

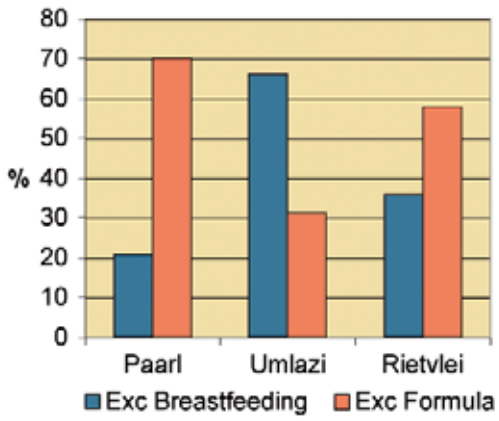


Figure 2: Infant feeding choice accordingto key conditions

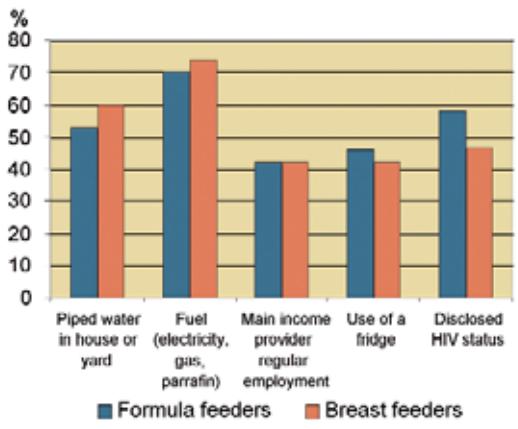
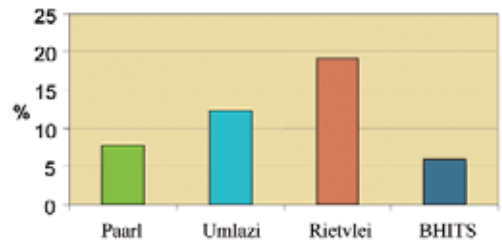


Figure 3: Late post-natal HIV transmission (3-36 weeks)



BHITS = Breastfeeding and HIV International Transmission Study. (See footnote 9 for reference).

in South Africa, very little is known about the actual infant feeding practices of this group. In order to describe these practices, the national Department of Health of South Africa (DoH) commissioned a group of research institutions to conduct a prospective cohort study known as the 'Good Start' study in three PMTCT sites; Paarl (rural/peri-urban Western Cape), Umlazi (peri-urban KwaZulu-Natal) and Rietvlei (rural Eastern Cape) in South Africa.

Context

Paarl is situated 60 km from Cape Town in the heart of the Winelands region. The approximate total population for the district is 198 546. Paarl East Hospital currently renders 97% of antenatal care services in the district with an average of 210 - 381 new bookings per month. All deliveries are done at Paarl Regional Hospital. The antenatal HIV prevalence is 9% and the infant mortality rate is 30 per 1000 live births.

Umlazi is a peri-urban formal township with interspersed informal settlements situated roughly 20km southwest of Durban, in the Durban-Ilembe health district in KwaZulu-Natal Province. There is one regional hospital, Prince Mshiyeni Memorial Hospital that serves as a referral hospital for the surrounding feeder clinics. Maternity services (including a 40-bed antenatal ward and 40-bed labour ward) and paediatric services (including a neonatal unit and paediatric outpatient services) are available at the hospital. The antenatal HIV prevalence is 47% and the infant mortality rate is 68 per 1000 live births.

Rietvlei is situated in one of the poorest sub-district of South Africa. The infant mortality rate is 99/1000 live births. Diarrhoea, malnutrition and lower respiratory tract infections are the major causes of infant mortality. A community survey in the neighbouring Mount Frere district found out that 40% of mothers reported delivering their last child at home. The antenatal HIV prevalence is 28%.

Study findings

This study recruited 665 HIV positive women and followed them until their infants were 36 weeks of age through regular home-based interviews and assessments of infant feeding practices and HIV transmission.

The infant feeding intentions (i.e. how they planned to feed their infant following counselling) of women enrolled in the study differed greatly between the sites (Figure 1) and did not reflect what would be expected for the socio-economic or geographic region, i.e. more women in the rural Rietvlei site chose to formula feed. Qualitative research[8] has shown that women rely heavily on the advice of health workers in guiding their feeding choices. The power and influence of health workers over mothers feeding choices was also found to have increased with the new knowledge that they possessed regarding HIV and infant feeding.

The home circumstances of women choosing to breastfeed and women choosing to formula feed were similar in terms of access to piped water, a sustainable source of cooking fuel, household income and use of a fridge. There were, however, higher rates of disclosure of HIV status amongst women who chose to formula feed (figure 2). This clearly indicates that the WHO/ UNICEF guidelines are not being utilised in counselling resulting in poor infant feeding decisions being made on both sides, i.e. inappropriate choices to breastfeed and to formula feed.

Given the finding that many women in this observational study did not appear to be making appropriate infant feeding choices, we sought to identify key individual and environmental criteria that could be used to guide appropriate infant feeding choices in operational settings, and to assess the effect of inappropriate feeding choices on infant HIV-free survival.

Criteria to guide infant feeding choice

Criteria deemed to constitute appropriateness of formula use based on the WHO/UNICEF guidelines (acceptable, feasible, affordable, sustainable and safe) were identified as piped water in the house or yard; electricity, gas or paraffin for cooking fuel; disclosure of HIV status by three weeks postpartum; having someone in the household employed; and access to a fridge for storage of prepared formula. Further analysis was undertaken to determine which of these criteria best predicted infant HIV-free survival.

Implications of inappropriate choice on HIV-free survival

An assessment score with piped water in the house or yard, electricity, gas or paraffin for cooking fuel and HIV status disclosure, was deemed to be the best measure of appropriateness in terms of yielding the greatest benefit for HIV free survival. Based on this score, amongst women who intended to formula feed, 67.4% made an inappropriate choice and amongst women who intended to breastfeed, 30.5% met the defined criteria for appropriate formula feeding. Infants of women who were classified as inappropriate formula feeders (i.e. not meeting the criteria in the score) had a three times greater risk of HIV transmission or death compared to women who chose to formula feed who did meet the three criteria. This finding highlights the importance of ade-

T Doherty, S Africa, 2005

Children playing in the Paarl informal settlement, one of the survey sites

[8] Doherty T, Chopra M, Nkonki L, Jackson D, Greiner T. Effect of the HIV epidemic on infant feeding in South Africa: "When they see me coming with the tins they laugh at me". *Bull World Health Organ 2006;84(2):90-96.*

quate assessment of individual and environmental circumstances during infant feeding counselling.

These infant feeding choices and practices lead to different rates of late HIV transmission across the three sites (figure 3). Only the Paarl rate was similar to a previous Breastfeeding and HIV International Transmission Study (BHITS) meta-analysis[9]. In Umlazi, the late transmission (3-36 weeks) accounted for almost half of the overall transmission and in Rietvlei it accounted for over half of total transmission and almost triple the rate at 36 weeks found in the BHITS meta-analysis.

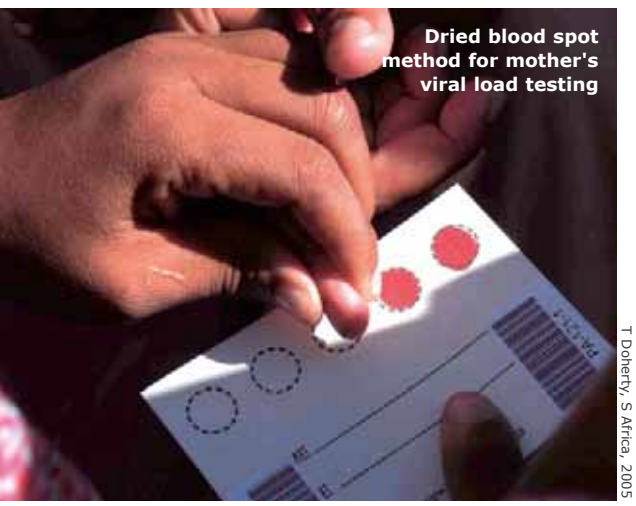
Recommendations

Based on our research we make the following recommendations;

- Exclusive breastfeeding for six months is recommended as the preferred infant feeding method for HIV positive women in the first 6 months until replacement feeding is acceptable, feasible, affordable, sustainable and safe (AFASS) for them and their infants
- All HIV exposed infants should receive regular follow up care and periodic reassessment of infant feeding choices based on individual and environmental circumstances.
- At six months, if AFASS criteria are not met, HIV-infected women should continue to breastfeed their infants and give complementary foods in addition, and return for regular follow-up assessments. As soon as AFASS criteria are met all breastfeeding should stop.
- Breastfed infants who are HIV-infected should continue to be breastfed according to the infant feeding recommendations for the general population.
- Protection, promotion and support for optimalbreastfeeding practices in the general population should be re-vitalized in order to help HIV-infected and other women who choose exclusive breastfeeding to practise their choice without stigma or discrimination.
- All HIV-exposed infants and their mothers should receive the full package of maternal health and child survival interventions with strong linkages to HIV prevention, treatment and care services.

For further information, contact Tanya Doherty, email: Tanya@hst.org.za
For more details on related work, see online at:
CADRE: http://www.cadre.org.za
Health Systems Trust: http://www.hst.org.za
MRC South Africa: http://www.mrc.ac.za

[9] Coutsoudis A, Dabis F, Fawzi W, Gaillard P, Haverkamp G, Harris DR, et al. Late postnatal transmission of HIV-1 in breast-fed children: an individual patient data meta-analysis. *J Infect Dis 2004;189(12):2154-66.*



Dried blood spot method for mother's viral load testing

T Doherty, S Africa, 2005

M Materu/ COUNSENUTH

Mothers targeted in some of the COUNSENUTH outreach work

Agency Profile

COUNSENUTH

Name	The Centre for Counselling, Nutrition and Health Care (COUNSENUTH)
Address	432 United Nations Road. P. O. Box 8218, Dar es Salaam, Tanzania.
Tel/fax	(255) 22 2152705 (office) (255) 754 279 145 (cell)
Email	counsenuth@cats-net.com
Website	www.counsenuth.org (being developed)
Executive Director	Mary G. Materu
Number of employed staff	12
Income (2005/06)	Approx 800,000 USD

By Marie McGrath, ENN

At a recent IBFAN meeting in Swaziland I met Mary Materu who is director and one of the founding members of the Tanzanian non-governmental organisation (NGO), CONSENUTH (The Centre for Counselling, Nutrition and Health Care). Mary kindly agreed to be interviewed for the agency profile section of Field Exchange. The interview was conducted by phone on my return to the UK.

Mary and colleagues set up COUNSENUTH in 1998. She is currently executive Director of the organisation. Originally trained as a nurse/midwife, her interest in nutrition really took off when she joined the Tanzanian Food and Nutrition Centre in 1979. While working for this national institution she undertook further study in nutrition, first a post-graduate diploma, then BSc and later MSc in the US. At the National Centre Mary felt she gained great experience and enjoyed working on many large projects, often at national level. However after 19 years with the organisation, she felt a strong desire to undertake nutrition work at a community level. This was the main impetus to set up the NGO, COUNSENUTH.

COUNSENUTH aims to contribute towards improving the quality of life through strengthening care for vulnerable groups and promoting preventive healthcare, nutritional care and counselling at a community level. They mainly work with partners, particularly local Community Based Organisations (CBOs), supporting the nutrition component of their work through training, and development, production and distribution of IEC materials on nutrition and health. The materials they develop are in Swahili and offer current, up to date and simple resources to use at ground level. They are also involved in participatory research and have regularly engaged the mass media, particularly radio, at local and national level. They are also sub-contracted by larger organisations like international NGOs (INGOs) and carry out nutrition related consultancies. A key agency activity is nutritional care for people living with HIV and AIDS, including infant feeding in the context of HIV and AIDS, often through home based care programmes. Currently there are 12 staff employed working with more than 20 CBOs in the districts of Tanzania. They also have working partnerships with government and district councils.

Two of their staff have attended nutrition in emergencies courses at Uppsala University in Sweden. Mary explained that while there is a perception that the only emergencies to affect Tanzania are refugee crises, there are actually vulnerable areas that consistently suffer droughts where COUNSENUTH also operate. For example, one activity involves teaching people how to preserve and dry foods using solar driers to use during leaner times. “People often don’t value some of the nutritious indigenous foods, so they are seen as food for the poor and only to be eaten when there is a problem”. Some of their programmes have a food aid component but only on a small scale, such as supply of perishable foods.

Mary emphasised that capacity building is at the heart of what they do, and is what makes the scale and scope of their work feasible – their operations extend

M Materu/ COUNSENUTH

Some of the COUNSENUTH staff with a selection of the resources developed

widely because of the capacity building and involvement of community based networks. She described how the wherewithal to get close to individuals in need is one of the great advantages of working with CBOs and how they have been "heartened" by how this has turned out. "CBOs are close to the clients and can identify the most needy. At this local level and scale, we can provide some funds for CBOs to buy perishable foods, like fruit and vegetables, that isn't possible in a large scale food aid operation". Mary suggested that supporting CBOs with local level food aid is complementary to the large scale food aid that may be provided by organisations like WFP.

Mary chuckled when I asked about funding sources. She remembered how little money they first began with. "In fact", she says, "when I first began the organisation, I didn't immediately know where we were going to get the money to operate from. In the very beginning we received a 2000 USD seed grant from International Baby Friendly Alliance Network (IBFAN) Africa that was a blessing to us" – which they used to train a small group of counsellors on infant feeding in 1999 and to produce a small brochure on infant feeding and HIV/AIDS in Swahili. "We continued with another 5000 USD from the National AIDS Control Programme (NACP) Ministry of Health and 5000 USD from the Global Health Council. These gave us the strength to continue" and since then, their portfolio of donors has expanded considerably to include Rapid Funding Envelope (RFE) for HIV/AIDS, Global fund round 4/TACAIDS/ MoH, URC/QAP (Project on infant feeding in context of HIV/AIDS), the Global Health Council, IBFAN and WABA (World Alliance for Breastfeeding Action). They have also formed working partnerships with some international agencies like Care International and FHI to provide the nutrition component of the home based care programme. In sharp contrast to their humble beginnings, their income in the last financial year was about 800,000 USD.

When I said how impressed (and admittedly jealous) I was of their funding success in a very short period of time, Mary emphasised that funding remained one of their biggest challenges. Their funding is typically short-term, usually over a one year period, so that they remain on tenterhooks and have to keep hoping and "trusting" that their needs will be met one year to the next. She also feels that international NGOs have a distinct advantage when it comes to securing funds and as a local NGO they have to work doubly hard in networking to overcome this. Their growth has also presented challenges, particularly with regard to management and monitoring and evaluation systems. Mary openly admits that these need strengthening and talks are ongoing with various partners about doing exactly this.

When asked about challenges she and her organisation face, Mary said one of the key frustrations they encounter on a day to day basis is food insecurity, not only of the beneficiaries but also of the volunteers working in the CBOs. "You see the poverty first hand when you are working within these groups", she says. "If you work as a volunteer in any developed country you normally have some standard of living or means to survive. Here you have volunteers who have nothing, yet they are willing to do the work". Also people sometimes think that if food is scarce, why talk about nutrition? However, Mary feels that it is in times of scarcity when their nutrition counselling can be most valuable - helping people to make the most of what little they have.

Mary feels one of the big challenges in her work is integration of nutrition in programming. "We favour integration"; she says, "it is a good thing". However integration involves compromises and she feels nutrition programmes inevitably have to compromise more than others. She described how typically you find nutrition being integrated into other big programmes, like PMTCT or large child survival programmes, rather than other activities being integrated into a nutrition programme. Thus, when there needs to be some sort of cutback, the priorities of the core programme will prevail and the nutrition component is often the first to be dropped. Maintaining a strong nutrition component of a programme is an ongoing commitment.

She also feels that one of the great strengths of the organisation is their expertise, and that they have been very lucky to have in-country expertise available in areas like nutrition and infant feeding, development of educational materials and in food and nutrition. Experts are identified and contracted by project, rather than a number of people being permanently employed by the organisation. She feels that this has really worked in their favour as they benefit from seasoned workers. Another strength is their ability to network with and engage CBOs thereby reaching the most needy. At the heart of the organisation is a team of committed people. "Even if staff are working on different projects and one group have a deadline to meet", she says, "we all put our hands in together. We have really built up trust and transparency in the organisation".

As to the future, Mary would like to see COUNSENUTH further expand partnering with CBOs thereby extending the network of small groups within the community. "Small as we all are, we can build the capacity of all to do big nutrition work together at a community level", she says. Overweight and obesity is also an area that she feels they will inevitably become engaged in as these problems are increasing in some areas of Tanzania. Regional forums like IBFAN Africa based in Swaziland, and the Regional Centre for Quality of Health Care based in Makere, Uganda offer great opportunities to network with other agencies in the region. COUNSENUTH have also made informal links with other countries, particularly where their consultants have worked for other organisations.

As a parting comment Mary emphasised that one of the keys to the success of their work in Tanzania is that "whatever we do, we use national guidelines whether training or in material development; we use national policy documents so that we all speak the same language".

I came away from the interview thinking how COUNSEUTH is a heartening example of how much a strong and principled local NGO can achieve in terms of community involvement and capacity building.

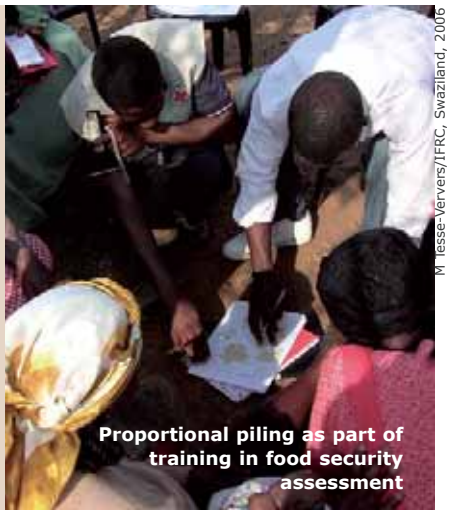
M Materu/ COUNSENUTH

One of the COUNSENUTH trainings on infant feeding in the context of HIV and AIDS

Evaluation

Improving food security in vulnerable households in Swaziland

Summary of evaluation[1]



M Tesse-Ververs/IFRC, Swaziland, 2006

Proportional piling as part of training in food security assessment

From 2002 to the end of 2005, the Finnish Red Cross and the Finnish Government supported a food security pilot project implemented by the Baphali Swaziland Red Cross Society, with assistance of the International Federation of the Red Cross and Red Crescent. The project was carried out in three different areas in Swaziland. The objective of the project was to make vulnerable households food secure by improving their food production and increasing their income – thereby reducing their vulnerability to droughts and other disasters including HIV/AIDS. Swaziland has a high incidence of HIV/AIDS with an estimated 39% of adults affected at the end of 2003. Furthermore, some 66 per cent of the population lives below the poverty line. This has bred a vicious cycle; reduced ability to cope with the effects of drought due to the prevalence of HIV/AIDS, and weakness brought on by drought, in turn compounding people's risk of exposure to HIV/AIDS.

Four types of project were undertaken within the overall programme; communal gardens, individual backyard gardens, communal fish ponds, and communal poultry production.

As a crucial first step, individuals within the community made land available with permission from the chief, which was then cleared and fenced by the project members. Financial assistance was provided for project infrastructure, e.g. construction of dams and ponds, irrigation pumps, etc. Apart from the backyard gardens, a committee within each community, selected by the project members, managed all of the projects. Training was offered in the areas of food preservation techniques, agricultural skills and project management.

A review of the project led to a number of findings. These included the following;

Approximately three quarters of the crops from the communal gardens and individual backyard gardens were consumed directly by household members of the project. The remainder was shared with vulnerable people, bartered or sold. Cash earnings were used to purchase school material and essential non-food household items and to pay for medical consultations and transport.

In cases where the soil on project sites was too poor for farming purposes, the introduction of poultry production served to optimise land use and provided a viable means of reducing vulnerability. The projects generated income, strengthened coping strategies and were sustainable. Some communities used the income earned to expand their operations into egg production. Larger scale contracts to supply supermarkets were also being developed, however their impact has yet to be determined.

The fish production project ran into some difficulties, due primarily to poor water retention in the fish ponds.

Not all projects were equally successful. Individual backyard gardens provided almost immediate results, while some of the collective projects required a longer timeframe before delivering the desired benefits. The communal projects, nevertheless, led to important contributions in sustaining social networks – including the desire and ability to assist the ill, elderly and orphaned.

Among the lessons learned and recommendations for project replication were the following;

[1] Swaziland: Good field practices to share and replicate. International Red Cross and Red Crescent Societies, 2006.

M Tesse-Ververs/IFRC, Swaziland, 2006

Focus group discussion

The dripkit watering system

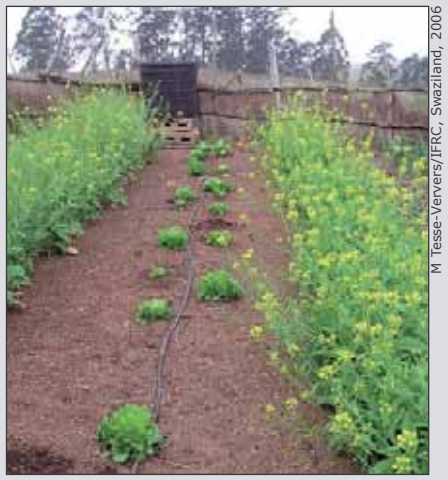
The drip kit is made of a type of rubber hose with holes in it (you can either buy pre-holed ones or make the holes yourself with a special cutter). Alongside the tubes you plant the seeds, then open the main tap to provide water in the early morning or later afternoon, to prevent too much water evaporating. This conserves water, also there is less weeding to do on the plots.

The water basin with tap should be at least 1 metre higher for water pressure (not reflected in picture here).

The system can be adapted using plastic bottles where they are plentiful – the bottles are filled with water, then the top lightly unscrewed so the water drips out. This is only really practical when you have a few plants.

M Tesse-Ververs/IFRC, Swaziland, 2006

Dripkit system used for watering the gardens



M Tesse-Ververs/IFRC, Swaziland, 2006

Dripkit system layout in the garden

M Tesse-Ververs/IFRC, Swaziland, 2006

Alternative dripkit using plastic bottles

- Selection through Home Based Care Facilitators can be a very effective way of identifying vulnerable families.
- Project membership issues need to be clarified at the outset – preferably by way of an agreed constitution and rules of operation.
- Numbers of projected beneficiaries need to be carefully estimated in order to ensure adequate material for project implementation. For example, in the garden projects the number of members per household was underestimated (from seven to ten with more than half of them children)
- Ongoing planning needs to take into consideration the possibility that communal projects may suffer a decrease in membership over time, e.g. due to mortality amongst AIDS sufferers.
- The compromised physical condition of individuals in communities with high rates of HIV / AIDS needs to be taken into account, e.g. motorised equipment, plastic water containers instead of concrete ones that were supposed to be self-constructed.
- A proper exit strategy should be developed at project inception. This should ensure a six month phase out plan, clarification of ownership and responsibilities in relation to capital assets, and recommendations regarding ways in which to secure support from other donors if necessary.

There were also a number of recommendations with respect to sustainability of the project. These included;

- The national society divisions and branches should be involved during the planning and implementation period to enable project sustainability once external funding has ceased.
- Youth should be involved with their parents whenever possible to ensure skills transfer and sustainability when parents can no longer participate.
- Water availability was generally a problem and was one of the main threats to sustainability. In drought prone areas, diversified project interventions that include a combination of crop and animal husbandry activities should be encouraged.
- Attention needs to be paid to location and quality of land being allocated – in this project, land was not always ideal or desirable, e.g. excessive distances to water sources and difficulty of access for the elderly.
- It is important to ensure a sufficient period of time for implementation in order to maximise sustainability. Community projects may require more time (two to four years) than individual backyard gardens (one to two years).

For more information, contact Mija-tesse Ververs, IFRC, Geneva, email: Mija.Ververs@ifrc.org

M Tesse-Ververs/IFRC, Swaziland, 2006

Collecting water from a house roof

Evaluation of WFP relief operations in Angola

Summary of evaluation[1]

The World Food Program mes's (WFP) assistance in Angola has alternated between relief and recovery since the mid-1970s. To date, nine emergency operations (EMOPs) and six protracted relief and recovery operations (PRROs) have been implemented by the WFP in Angola. Following the peace agreement in April 2002, WFP interventions continued to be of an emergency nature. In 2004, as the number of food-insecure and highly vulnerable people declined significantly, WFP began to focus on recovery operations in the highly food-insecure regions. The sharp decline in donations and the absence of government funds for recovery obliged WFP to reduce its coverage of most programmes. WFP began to concentrate on refining vulnerability analyses and implementing recovery activities rather than implementing relief activities. Currently, WFP has reduced its humanitarian assistance in Angola, focusing increasingly on consolidating its efforts and shifting responsibilities to national authorities.

WFP has evaluated the three most recent PRROs implemented from January 2002 to December 2004, as well as five Special Operations (SOs) implemented to assist the PRROs achieve their objectives.

Key findings

Emergency food distribution, and medical and social feeding programmes contributed to WFP's objectives of saving lives, improving nutritional status, and preventing malnutrition. WFP's interventions contributed to nutrition objectives primarily by reducing acute rather than chronic malnutrition. The operations were generally efficient reaching large numbers of beneficiaries despite some delays and gaps. Concentrating efforts in the central highlands was appropriate for improved efficiency.

Many food for work and food for asset activities satisfied needs for infrastructure, but were mostly undertaken in exchange for labour instead of constituting activities to improve livelihoods.

School feeding offered an opportunity for broader community participation in development, reconciliation, improving attendance and addressing nutritional concerns. Activities were hampered by weak government support, lack of funds and technical capacity of implementing partners, and competing educational priorities.

WFP contributed considerably to enriching humanitarian coordination with the other United Nations (UN) agencies, governmental agencies, non-governmental organisations (NGOs) and donors. However, it made little progress in linking short-term emergency relief measures with longer-term recovery efforts. The marginal involvement of the government and its weak financial and technical engagement severely limited the potential of WFP's activities to contribute to sustainable recovery.

Overall, targeting methods im- proved and vulnerability analysis and mapping data (VAM) were used for geographical targeting, but were not used systematically for beneficiary selection in particular areas. The monitoring and evaluation system improved in terms of efficient data collection and storage, but operated separately from VAM and reported primarily on outputs rather than on outcomes.

WFP sought to ensure beneficiary protection, but the task became increasingly complex, involving prevention of discrimination in aid programmes, ensuring access to basic services and protecting land tenure and property rights. Recovery activities involved women, but failed to reflect their priorities for literacy, skills training and income generation. Moreover, gender imbalances in decision-making bodies and the special needs of female-headed households were neglected.

Key lessons included the following;

- In order to cultivate responsibility and ensure the ownership of results, partnership agreements must be based on joint objectives of WFP and its partners.
- Monitoring and Evaluation (M&E) and reporting can be labour-intensive and costly. Clarifying staff responsibilities and allocating sufficient budget at the start of operations will help ensure proper M&E.
- With better planning, and more consistent, timely and accurate monitoring of both food rations and the nutritional status of the beneficiary populations, it is most likely that the pellagra outbreak in Kuito could have been prevented. The experience could be useful in preventing similar situations in the future.
- Without adequate information on gender, and a thorough gender analysis of beneficiaries and relief recovery, WFP's task of supporting the Enhanced Commitment to Women is rendered impossible.

[1] Full and summary reports of the Evaluation of the Angola Relief and Recovery Operations are available at: http://www.wfp.org/operations/evaluation

Community-based Therapeutic Care (CTC): A Field Manual

Community Therapeutic Care (CTC) is an approach to managing acute malnutrition that has regularly featured in Field Exchange and was the subject of an ENN special supplement[1]. A field manual on CTC has now been developed in a collaboration between Valid International, Concern Worldwide, USAID's Food and Nutrition Technical Assistance (FANTA) Project, and Development Cooperation Ireland (DCI).

The manual provides programme managers, practitioners, and technical specialists addressing severe acute malnutrition with the essential design, implementation and evaluation protocols for implementing the CTC approach. As the CTC model is evolving, this first edition does not provide a step-by-step workbook for implementers, but rather offers a solid foundation to build CTC programmes at local and national levels.

To complement the release of the CTC Field Manual, a set of CTC training modules aimed at implementation of the CTC method for the management of acute malnutrition are in development. These training materials will be important to ensure that future implementers are proficient in the CTC method for managing acute malnutrition, and will be released after materials testing is complete.

A copy of the manual can be downloaded from the FANTA website at: http://www.fantaproject.org/ctc/manual2006.shtml or from the VALID website, http://www.validinternational.org/pages/

The first edition of the CTC Manual is also available in print. It costs £9.50, which includes a free CD, containing an electronic version of the manual with annexes in printable formats. Standard postage will be charged in addition to the cost of the manual. Order online at http://www.validinternational.org/pages/or contact: Alessandra Thomas at email: office@validinternational.org.

[1] http://www.fantaproject.org/ctc/ENNsupplement.shtml

Food Security, Nutrition and HIV/AIDS in Relief and Development

Meeting report[1]

Concern Worldwide UK recently convened a meeting in London on food security, nutrition and HIV/AIDS. The meeting was attended by senior officers from UK-based international humanitarian and development organisations in order to focus on key policy and programming areas, as well as forge inter-sectoral links within the UK. The meeting comprised a number of presentations and plenary discussions.

Stuart Gillespie from International Food Policy Research Institute (IFPRI) opened the presentations by providing an overview of developments since the Durban meeting[1] and in particular the work of 'Renewal', which is trying to address the potential relationship between HIV and food security. The initiative has developed a framework that describes the 'vicious cycle' from a livelihoods perspective. This allows one to look at susceptibility to HIV, vulnerability of households to HIV and AIDS and the consequent effects on assets and institutions.

Kate Sadler from Valid International presented on issues related to nutrition and HIV/AIDS focusing on the experiences of employing the Community Therapeutic Care (CTC) approach. She explained how HIV is very closely related to nutritional status. In the developing world, wasting can occur because of lack of food that, in turn, accelerates the onset of chronic AIDS because it decreases the body's resistance to opportunistic infection. Interestingly, the records on CTC show very strongly that CD4 counts are not related to anthropometry. This is important because of the decision about how malnutrition markers cannot be used to gauge CD4 counts. Providing the specially formulated Ready to Use Therapeutic Food (RUTF) to people with HIV and AIDS through community based structures and services within their own homes, can make it easier for them to regain or maintain their nutritional wellbeing. RUTF alone can improve health, so that even those who are bedridden can regain strength and become active enough to work, travel and access treatment. RUTF with anti-retrovirals (ARV) speeds recovery. According to Kate, the increase in Voluntary Counselling and Testing (VCT) is another successful aspect in areas where CTC has been introduced. For example, the dramatic uptake of VCT occurred quite early on in the roll out of CTC in countries like Malawi. This is because VCT was introduced at the same health centre sites as CTC, so people were being exposed to HIV related discussions and opportunities for testing in a much more open way. People were learning early that treatment would be available and this encouraged them to come forward.

Stanley Mwase from Concern Worldwide presented on CTC in Malawi. He explained how, with the introduction of CTC, the use of RUTF inadvertently met with certain cultural perceptions because it resembled an already widely-consumed local peanut butter paste called 'Chiponde'. This presented some problems when RUTF was given to mothers who had malnourished children because the rest of the family would eat the RUTF just like they would Chiponde. So RUTF in Malawi had to be remarketed as a medical treatment rather than as a food. CTC is currently being implemented by the Ministry of Health as a component of primary health care rather than through NGOs as is the current practice with many other programmes. The Malawi government has started formulating strategies to support long term implementation of CTC and has developed a CTC Advisory Service with Concern Worldwide.

Randa Saadeh from WHO then presented on WHO perspectives on nutrition and HIV/AIDS. Randa explained that nutrition impacts on Body Mass Index (BMI) and the lower the BMI, the lower the survival time for People Living with HIV/AIDS (PLHA). Also, those with low BMI can develop high toxicity to ARV treatments. She stressed that although RUTF is effective, it should not be a replacement to providing adequate nutrition through other methods. WHO recommends that micronutrient levels are always adequate. With regard to ARVs, WHO believes that the value of therapy outweighs the risk. However metabolic complications need to be adequately addressed. This is very relevant in some African countries that are using nutrition exclusively, to address HIV.

The final presentation was by Paul Harvey from the Overseas Development Instituite (ODI). Paul suggested that the history of food security/HIV interventions in southern Africa shows how most have involved food aid. While there have been other interventions like home gardens, rabbits and chickens breeding and conservation farming, these have been patchy, while the potential of communities to solve their own problems is often viewed with an unrealistic optimism. Furthermore, there has been too much focus on labour constraints and very little evidence on the impact of interventions like community home gardens. Talking to people about how to eat better or grow crops better is not going to help in the longer term. A patronising attitude to the poor is still quite often seen in nutrition counselling programmes. Paul suggested that we need to look at how to engage with people. For example, there is a growing interest in cash alternatives to food or access to free basic health care as viable alternatives, while livestock production, although a good alternative livelihood strategy, is largely being neglected by most interventions.

For further information and the full report of the meeting contact Karl Deering at Concern Worldwide UK, email: karl.deering@concern.net

[1] HIV/AIDS and Food and Nutrition Security. From Evidence to Action. April 14-16, 2005, Durban, South Africa. See meeting highlights at: http://www.ifpri.org/events/conferences/2005/20050414HIVAIDS.htm

New UNHCR Policy on handling Milk Products

The revised edition of the UNHCR Policy Related to the Acceptance, Distribution, and Use of Milk Products in Refugee Settings is now available. The 2006 version replaces the 1989 version and was produced by UNHCR in consultation with the ENN, the Infant Feeding in Emergencies (IFE) Core Group (UNICEF, UNHCR, WHO, WFP, IBFAN-GIFA, CARE, Tdh, ENN) and the Institute of Child Health, London.

This version is based on WHO's documents on infant and young child feeding[1], as well as the 2006 Operational Guidance for Emergency Relief Staff and Programme Managers on Infant and Young Child Feeding in Emergencies produced by the IFE Core Group.

In a recent global meeting on IFE held in Oxford 1-2 November 2006 (see meeting summary this issue), it was recommended that the UNHCR's milk product policy be considered and adopted by UN agencies (specifically UNICEF, WFP and WHO) as a UN common Milk Products Policy in refugees and expanded to apply also to other emergency situations.

The document is available in English and French on UNHCR's Website under Publications/Partnership/Guidelines/Resources for Partnerships in Health and Nutrition and on the ENN website, www.ennonline.net.

For further information on the UNHCR policy, contact: Fathia Abdalla, email: ABDALLAF@unhcr.org

If your agency is considering revising or producing a policy on handling milk products and you would like to co-ordinate this effort with other agencies, contact the IFE Core Group, via Marie McGrath, ENN, email: ife@ennonline.net

[1] Guiding principles for feeding non-breastfed children 6-24 months of age; Guiding principles for complementary feeding of breastfed children 6-24 months of age; Guiding principles for infant and young child feeding in emergencies. Available at http://www.who.int/nutrition/publications/infantfeeding/en/index.html

Commentary: Regional Training on Integrated Management of Severe Malnutrition

By Ann Ashworth and Steve Collins

WHO and UNICEF came together in Tanzania in September 2006 to hold a joint training on the Integrated Management of Severe Malnutrition. The participants were health practitioners with responsibility for managing severely wasted or oedematous children (severe acute malnutrition), WHO and UNICEF regional advisors and nutrition officers, and ministries of health staff responsible for planning and implementing programmes to prevent and treat malnutrition. Eight countries from East and Southern Africa were represented: Eritrea, Ethiopia, Kenya, Tanzania, Uganda, Botswana, Namibia and Lesotho.

Community-based care and inpatient management are complementary components of an integrated approach to treating children with severe acute malnutrition, but in recent years there has been an unfortunate tendency for the two components to be seen as competitors. The idea for an Integrated Training arose at a Malnutrition Task Force meeting in May 2006 and the idea was discussed with WHO and UNICEF, who took it forward promptly and willingly in collaboration with the Food and Nutrition Technical Assistance Project (FANTA). The aim is to reduce deaths from severe acute malnutrition by active-case finding and intervening early before a child's condition deteriorates, community mobilisation to improve access and understanding and achieve high coverage, treating uncomplicated cases in the community, and improving facility-based management.

The training was held at Muhimbili University College of Health Sciences, Dar es Salaam. The first training day began by outlining the key components of community-based and facility-based care, and their integration. Experiences of integrated management were shared, as well as lessons learned in scaling-up national programmes. The main facilitators were Ann Ashworth, Steve Collins, Tanya Khara, Anne Walsh, Theresa Banda, Chantal Gegout, Beatrice Amadi and Paluku Bahwere. Participants then focused either on community-based management (September 26-28th) or facility-based management (September 26-30th). On the last day of the joint training, the community-based and facility-based participants formed eight country teams to plan post-training actions together. These centred around how to move forward in an integrated manner; who to involve; issues to be discussed; support needs; and timeframe. Peter Hailey (UNICEF Regional Office, Nairobi) guided participants in these activities.

Over 60 people attended, all of whom have the potential to make a real difference in reducing malnutrition-related deaths. Both Flora Sibanda-Mulder (UNICEF New York) and Denise Coitinho (WHO Geneva) in their opening addresses described the joint training as a milestone. Not only did it demonstrate the integration of community-based and facility-based care, but WHO, UNICEF, VALID and FANTA worked in partnership and set the example of moving forward together. It was agreed by all that it was not acceptable to think of community-based care in competition with facility-based care, as both approaches complemented each other. Real commitment from governments, however, will be needed to achieve high coverage and low mortality. It is hoped that this integrated training will be the first in a series of UNICEF and WHO collaborations to roll out the integrated management of severe acute malnutrition globally.

Nutrition Manual for Humanitarian Action

Alain Mourey has been a nutritional advisor for ICRC for 24 years. During this period Alain has had unique exposure to many of the world's worst conflicts and resulting nutritional crises. After several years of writing (and no doubt re-writing), Alain has produced a 'Nutrition Manual for Humanitarian Action'. Alain's unique experience over several decades should make this book essential reading. The review below has been written by Dr Pierre Perrin, Chief Medical Officer of the ICRC (Eds)

For decades now, nutritional action has largely been confined to directly responding to cases of malnutrition. This Manual departs from such a narrow approach. The author considers nutrition in its broadest sense and derives practical recommendations for humanitarian action.

The manual first provides an in-depth vision of nutrition, based on a coherent range of information on nutritional requirements, food and the feeding process. It demonstrates the interrelation between nutrition and other relevant sectors, notably the economy. The social dimensions of food are also discussed thoroughly. This first section provides the scientific basis of the Manual.

In the second part, the author analyses the mechanism and impact of crisis at all levels: human, political, economic, ecological, social, cultural, and physiological. This section represents the core of the Manual because it provides the logic behind the need for integrated approaches to response.

The third part of the manual is devoted to humanitarian action, starting with basic principles, assessment methods and tools. It then moves on to locate nutrition within the legal framework set by international laws; and as such reminds humanitarian operators that the operational response to nutritional disorders is not simply technical, but also pertains to the protection of food access and the rights of victims.

There are also the inevitable chapters devoted to the 'classic' nutrition actions, namely general food distributions, nutritional rehabilitation and nutrition information. The author discusses these first in terms of planning: is such action required and, if so, how should it be carried out?

The sections on practical implementation that follow are located within the scientific elements described in previous chapters.

The author shares his extensive personal field experience with readers, and has managed to connect scientific theory and practice, thereby providing an operational and professional perspective.

The book is available in French, to be followed in English. It costs CHF 43.-/and can be ordered online at http://www.icrc.org/Web/Eng/siteeng0.nsf/html/p0820

Strategy Meeting on Infant Feeding in Emergencies

Summary of international meeting

ENN, 2006

Media/communication Working Group in the foreground and Implementation/Capacity building Working Group in the background

On 1st and 2nd November, 2006 an international strategy meeting on Infant Feeding in Emergencies (IFE) was held by the IFE Core Group in Oxford, UK, organised by the ENN. The meeting was funded by UNICEF, IBFAN-GIFA and CARE-USA. ENN's role was supported by USAID/OFDA and IFE Core Group contributions.

The IFE Core Group members comprise ENN, UNICEF, WHO, UNHCR, WFP, IBFAN-GIFA, CARE USA, Fondation Terre des hommes, coordinated by ENN since 2004. The IFE Core Group have been working in two areas of IFE – policy guidance that is embodied in the Operational Guidance on Infant and Young Child Feeding in Emergencies for programme and emergency relief staff and capacity building in the form of two training modules (Modules 1 and 2). Since 2005 major concerns of the IFE Core Group have been the difficulties in putting the guidance and training modules into operation, reflected in the poor co-ordination, poor policy awareness and limited technical know-how observed in recent emergency responses. In order to address these concerns, an international strategy meeting was held to:

- identify key constraints to supporting and protecting appropriate infant feeding practices in emergencies, and
- develop strategy directions and practical steps to address constraints

The meeting was attended by sixty or so delegates from around the world, including UN agencies, NGOs, academia, donors, professional bodies, trainers and individuals with field and/or training expertise in infant feeding. Regional field staff attended from Indonesia, Lebanon, Kenya, Mexico, and India.

The following is a summary of some of the key elements of the presentations, plenary discussions and outcomes of the meeting

Day 1

The first day comprised field presentations and plenary discussions on the challenges and opportunities of IFE related to policy and guidance (morning) and implementation (afternoon). Presenters were asked to summarise key points, analyse, highlight key issues, and propose recommendations.

Challenges related to policy and guidance

David Clark, Legal Advisor on the Code with UNICEF NY, opened with a presentation on the politics and policy around the International Code of Marketing of Breastmilk Substitutes (the Code). He also highlighted the risks of artificial feeding, citing recent experiences from Botswana where contaminated water led to a significant rise in infant mortality in infants on replacement feeding (see this issue of Field Exchange). He reiterated that the Code protects both breastfed and artificially fed infants and its better implementation and enforcement would improve infant and young child feeding in emergencies. The Operational Guidance articulates well the application of the Code in emergencies – this needs to be widely distributed, internalised and implemented.

The two presentations that followed highlighted the reality of Code and Operational Guidance implementation in the field. First Ali Maclaine, Save the Children UK (SC UK) detailed the inappropriate infant feeding interventions and widespread Code violations they documented following the conflict in Lebanon in 2006 (see field article this issue). Many key recommendations for action were made; infant and young child feeding (IYCF) should be assessed in the initial phase of emergencies with standardised assessment tools, UNICEF must uphold its role in monitoring and coordinating infant feeding in emergencies. She highlighted the need for training and orientation for staff on IFE.

A second presentation by Sri Sukotjo of UNICEF Indonesia described how following the May 2006 earthquake, UNICEF found that widespread distribution of infant formula in Yogyakarta reduced breastfeeding rates. Infants who were formula fed had increased incidence of diarrhoea after the earthquake. Limited awareness, knowledge, skill and commitment on IYCF nationally prior to the crisis contributed to this situation. Advocacy, circulars, guidelines and health education materials on infant feeding did not stop the flow of infant formula or encourage breastfeeding. On a positive note, UNICEF Indonesia demonstrated that well designed breastfeeding support in emergencies can make a difference – evidence based advocacy and support for mothers through breastfeeding counsellor training was shown to successfully raise exclusive breastfeeding rates. UNICEF also managed to successfully negotiate with one government donor agency and prevent one unsolicited large donation of infant formula.

A summary of a recent WHO HIV and Infant Feeding Technical Consultation (Geneva, October 25-27, 2007) was presented by Zita Weise Prinzo, WHO Geneva. One of the key outcomes of the consultation is a new recommendation for duration of exclusive breastfeeding for HIV positive mothers in situations when AFASS (acceptable, feasible, affordable, sustainable and safe) criteria are not in place for replacement feeding. Current 2000 UN recommendations advise HIV-positive mothers to exclusively breastfeed during 'the first months of life' and discontinue once AFASS criteria for replacement feeding are met. Pending finalisation of the exact wording, the WHO technical consultation concluded that, based on the new evidence, exclusive breastfeeding is recommended for HIV-positive women for the first six months of life, unless/until AFASS criteria are met for replacement feeding. Participants at the Oxford meeting welcomed this alignment with recommendations for the general population since it may help with addressing some of the confusion in the field, caused by the 2000 recommendation. Participants also considered the wording of this recommendation critical, and after some discussion on both days, the plenary proposed a specific wording which delegates who participated in the WHO technical consultation agreed to feedback to WHO as a recommendation of the IFE meeting.

Fathia Abdallah, UNHCR shared the experience of revising the UNHCR Policy Related to the Acceptance, Distribution, and Use of Milk Products in Refugee Settings (2006). This was updated from the 1989 joint UN version, in close collaboration with ENN, the IFE Core Group and significantly informed by the Operational Guidance. She proposed that the 2006 UNHCR policy on milk product handling in refugee settings could and should form the basis of a joint UN policy to cover non-refugee settings.

Challenges and opportunities for implementation

The afternoon session began with a summary of the inter-agency standing committee (IASC) nutrition cluster system by Flora Sibanda-Mulder, UNICEF NY. The nutrition cluster aims to strengthen emergency preparedness, strengthen coordination and set standards and policy. At the field level, the cluster aims to identify gaps, create stronger collaboration, improve strategic field level coordination and prioritisation and strengthen accountability through country cluster leads. A 'toolkit' of interventions that includes IFE is being developed to facilitate the cluster approach. Experience from delegates so far showed that the success of the nutrition cluster depends to a large extent on the capacity of the cluster leads in-country and the co-ordination in Lebanon was particularly lacking. UNICEF is looking at building a resource of technical experts with IF expertise to fill this gap.

Presentators from Lebanon, Latin America and the Carribean (LAC), India and Kenya highlighted the challenges of IFE in their regions and how they have been working to address these.

Iman El-Zein, IBFAN Arab World in Lebanon described how infant formula, often with labels violating the Code, was widely and indiscriminately distributed. Furthermore, she described their frustrated attempts to support breastfeeding mothers that was prevented by lack of official support by the coordinating agency, and the expectation by aid facilitators and mothers of receiving commodities rather than counselling. Recommendations highlighted the need for good cooperation and co-ordination between local NGOs, INGOs and the UN, good leadership and trained health personnel.

Marcos Arana, of IBFAN LAC described dealing with natural disasters in his region that tend to follow a seasonal pattern. Despite their predictability, very few strategic efforts have been made by authorities to include IFE in national or regional programmes of disaster preparedness. Spontaneous solidarity often takes the form of food donations, which often include infant formula, and is not under the control of the health system. Successful initiatives that IBFAN LAC have developed in the region include developing audio cassettes and media information kits; training, including diploma courses, and Spanish translation and adoption of the IFE modules.

Dr Bethou Adhisivam, JIPMER, Pondicherry shared the findings of a study he carried out to

assess the impact of breastmilk substitutes donated during the tsunami in four coastal villages in Pondicherry, India (see research summary this issue).

Finally, Anne Njuguna, CARE Kenya shared her experiences of training on IFE in the Dadaab refugee camps, using IFE materials translated and modified to suit the local setting. Training was largely based on the UNICEF-WHO 40-hour breastfeeding counselling training materials. Challenges included the high turnover of staff, lack of basic needs among refugees, difficulties of assessment due to language and technical skills and traditional and cultural practices (such as wet nursing being taboo). Recommendations given included the need to incorporate qualitative research into programmes and the need for simpler training modules to target local health workers.

Ian Bray, Media Officer with Oxfam GB, offered some insight into how we need to approach our work with the media to make a difference to public responses to IFE. Journalists look for stories that are dramatic, immediate, simple, personalized and that have authority. Geographic proximity, magnitude, conventionalism and novelty are important to them. The main two questions to ask are "So what?" and "Why now?" The best way to educate journalists on an issue is to give them a good story.

One of the main limitations cited in using the training modules by NGOs has been lack of time for adequate training. Caroline Wilkinson, Action Contre Le Faim (ACF) described how they have been trying to address this by developing a training CD for their nutrition field staff. The IFE CD comprises a series of mini modules developed by a lactation counsellor, guided by the nutrition and psychology team, and using the training modules developed by the IFE Core Group. External experts are currently reviewing its use.

Key Conclusions from Day 1

The Operational Guidance and the International Code are not just about protecting and supporting breastfeeding but also about minimising the risks of artificial feeding and ensuring appropriate infant and young child feeding. However NGOs continue to distribute infant formula in emergencies particularly when there is a high prevalence of formula fed infants pre-crisis. Availability of skilled breastfeeding support is insufficient or non-existing.

New or updated IFE Policy guidance and training materials do exist. However there seems to be a huge gap between what is known at technical/policy level and the reality in the field. In particular:

- Recent experiences in Indonesia, Lebanon, India have shown significant violations of the principles highlighted in the Operational Guidance
- Health professionals remain poorly trained on IFE issues
- Coordination at field level remains a serious problem, although the recent cluster lead initiative may help in the future
- There is little documentation of actual use of training materials in the field to help evaluate their application.

However there are examples of some excellent recent work that we need to draw upon (Dadaab, Lebanon, Indonesia, India, Mexico).

Does it really matter? New evidence presented at the meeting shows that, yes, it does.

- Inappropriate IFE practices were the most significant risk factor associated with very high levels of diarrhoea and death in Botswana
- Infant formula distribution during emergencies in Indonesia, Lebanon and India impacted negatively on infant feeding practices
- Indonesia and Dadaab, Kenya examples showed that breastfeeding counselling can improve feeding practices in emergencies.

What can be done? The real challenge is to better integrate and mainstream IFE into agency and government policies and programmatic response. There is a need to significantly raise the issue of IFE on the agenda globally, reaching out to the media, donors, and the military. Advocacy materials do exist but they are not widely known and used. A huge effort is needed on capacity building at all levels.

Since the challenges of IFE identified during the 1999 Kosovo crisis , there is more awareness generally of IFE, more policy guidance and materials available, some positive experiences and new compelling data on outcomes. However we have still not been able to impact the acute emergency response. A balanced approach to supporting both breastfed and artificially fed infants remains a challenge. To move forward we need stronger commitment from all key actors and more funding.

Day 2

The second day comprised four working groups to identify strategic directions and critically, come up with action points assigning/suggesting agency responsibilities and timeframes. Recommendations of the working groups were presented to the plenary and unless contested, were agreed as recommendations of the meeting.

The four working groups were:

- Policy and coordination
- Implementation and capacity building
- Engaging with the media/effective communication
- Impact assessment/lesson learning

Despite considerable advocacy effort by IFE Core Group members for donors (22 bilateral and private invited) to attend, donors were poorly represented and only one attended for the first day. This was identified as a considerable gap by the plenary. As a result, a scheduled fifth working group on working with donors was absorbed into the other four working groups.

Working groups – practical steps forward

The following is a selection of some of the key steps agreed, with responsible agencies given in brackets. A full listing of outcomes with agencies and timeframes assigned to tasks is given on the ENN website.

- The Operational Guidance should be elevated as official guidance, building on the Global Strategy and Innocenti Declaration on Infant and Young Child Feeding. The UN Standing Committee on Nutrition (SCN) endorsement should be pursued. (ENN/UNICEF/ACF)
- Key sections of the Operational Guidance are to be reviewed to clarify particular provisions pertaining the Code (ENN/SC UK/IBFAN/UNICEF)
- Agencies should endorse the Operational Guidance via ENN. (All/ENN). *Fifteen agencies signed up to support the Operational Guidance at the meeting.*
- UNHCR to set in motion the development of a joint UN policy on handling milk products that can be used by other agencies and expanded to cover other emergency settings (UNHCR/ENN).
- The ENN were invited (and accepted) to become a member of the UN nutrition cluster to represent the IFE Core Group and keep IFE high on the agenda.
- Strengthen the connection between the Operational Guidance and Sphere (ENN) and work to ensure that IFE (and specifically managing infants under 6 months) is included within existing training and materials, including:
  - Valid International training manual on Community Therapeutic Care (ENN)
  - WHO manual on managing severe malnutrition (WHO).
  - Emergency Staff Capacity Building Project (Mercy Corps International)
- Develop a media/advocacy kit for internal distribution/press distribution. This will include key messages, questions and answers, key statistics and possibly an audio/visual aid. (UNICEF)
- Advocate for WABA (World Alliance for Breastfeeding Action) to have IFE as key theme for the World Breastfeeding Week 2008 (IFE Core Group/IBFAN).
- Compilation of case studies from recent emergencies, into an ENN document (ENN).
- Explore development of an ENN Special Supplement on IFE (ENN)
- Explore linking IFE to other sectors, such as reproductive health and child survival (All)

Immediately following the meeting, the IFE Core Group met to address the specific outcomes of the two-day meeting. This included clarification of the ENN/IFE Core Group role in relation to the UN nutrition cluster, prioritisation of the workplan and resources available, and an invitation to ACF and SC UK to join the IFE Core Group.

All presentations from the meeting are available at http://www.ennonline.net
A full report will be soon available from the ENN. For further information, contact: Marie McGrath, ENN, email:marie@ennonline.net

[1] Meeting the nutritional needs of infants during emergencies: recent experiences & dilemmas. Report of an International Workshop, Institute of Child Health, London, November 1999. http://www.ennonline.net/docs/IFEWorkshopReport1999.pdf

Participants in the Oxford IFE meeting, 1-2 November, 2006

ENN, 2006

Support the Operational Guidance

During a recent strategy meeting on IFE in Oxford, fifteen agencies/institutions signed up to support the updated Operational Guidance on Infant and Young Child Feeding in Emergencies. Agency support is defined as where the Operational Guidance is in line with your own agency policies and/or is in line with the thinking within your agency and is a position you would like to work towards.

The Operational Guidance (Version 2.0) is available in English, Russian and Bahasa from the ENN, and online at www.ennonline.net.

Register your support online at http://www.ennonline.net/ife/support.aspx or contact the ENN, email: ife@ennonline.net

If you would like to use the Operational Guidance to help develop your internal agency policy and would like to work with other agencies to do this, contact ENN, email: ife@enonnline.net

Food Security Distance Learning Course Launched

The EC-FAO Food Security Programme has recently launched a comprehensive distance-learning course on Food Security. The first unit, Reporting Food Security Information, provides guidance in designing, writing and increasing the impact of food security reports in different contexts. Each lesson takes 3.5 hours and is delivered in an interactive self-paced dynamic learning environment which uses illustrated step-by-step instructions and exercises.

The target audience is:

- Mid-level managers, technical staff and 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.

Future units will cover other food security topics including assessments, indicators, information systems and networks, and communication and advocacy.

The course is available on line at: http://www.foodsecinfoaction.org/DL. It is also available on CD-ROM in English (free) that can be requested online. A French version is being prepared. For more information, contact: information-for-action@fao.org

Updated CD on IFE

A CD of Infant Feeding in Emergencies (IFE) resources developed by the IFE Core Group and related materials has just been updated by the ENN. Version 2.0 contains:

- Newly updated Operational Guidance on Infant and Young Child Feeding in Emergencies (V2.0) and translations available to date (V1.0 and V2.0)
- Training modules on IFE (Modules 1 and 2)
- Recently revised UNHCR policy on handling milk products in refugee settings (June, 2006).

It is available from ENN at a cost of £3/5€/$6 plus P+P/free to those with limited resources.

Alternatively to create your own CD, click on the link on the ENN website at http://www.ennonline.net/ife/cddownload/index.html

Community mobilisation at the core of outpatient treatment of severe malnutrition

Dear Editor,

There is now a robust evidence base demonstrating that the outpatient care of children with severe acute malnutrition using the Community-based Therapeutic Care (CTC) model – with its emphasis on community mobilisation – is a high impact intervention. For CTC programmes, impact refers primarily to; high cure rates, high programme coverage, low death rates and low default rates. The evidence-base is comprised of data collected through operational research in CTC programmes in a variety of contexts – all of which had a community mobilisation component in one form or another. This comprehensive evidence base has been central to the changing of national, UN and NGO policies towards the treatment of acute malnutrition. In November 2005, the WHO/UNICEF/SCN Informal Consultation on Community-Based Management of Severe Malnutrition in Children concluded that: *"…community-based management of severe malnutrition is an effective intervention to treat a large number of children suffering from severe malnutrition with a very low case fatality rate, provided adequate dietary and medical treatment is delivered, close follow-up is ensured and early detection is implemented at community level"*[1]

The endorsement by WHO has led to a rise in agency implementation, and widespread adoption of the CTC model.

Community Mobilisation and the Success of CTC
From the outset, and regardless of the context, CTC programmes have consistently involved communities in the process of sensitisation (awareness-raising), case-finding (community-based screening) and follow-up (of defaulters and absentees). How this is done has varied from context to context, and from programme to programme. CTC programmes in Ethiopia, for example, have successfully tapped into existing volunteer networks in the communities – thus reducing the problem of replication and the creation of parallel systems. CTC programmes in Darfur and Niger, on the other hand, have identified key community figures (including traditional healers, crier publique and femmes relais) capable and willing to play a role in mobilising their communities. The resources involved in conducting these activities have been comparatively low; some of the most effective CTC community mobilisation endeavours have been accomplished by a small team (2-3 people) of carefully selected local people, able to move independently around the communities.

[1] WHO, UNICEF and SCN. *Informal Consultation on Community-Based Management of Severe Malnutrition in Children.* (Geneva, 21-23 November 2005, Meeting report, Draft 1, our emphasis)

Valid Int, Wulla, 2003

Engaging with a traditional healer in Wulla

What is the impact of Community Mobilisation on CTC programmes?
We see community mobilisation as central to the CTC model because of the clear, tangible and positive outputs produced by such activities. First, community mobilisation increases appropriate presentation of cases thereby increasing overall coverage. This requires a comprehensive sensitisation campaign – with basic messages about malnutrition, using local nomenclature to highlight signs and symptoms, and clear information about programme locations, the treatment available and how somebody might access that treatment. We have seen that such campaigns substantially increase the number of severe/moderately malnourished children being self-referred by the communities. Secondly, effective mobilisation decreases inappropriate presentation of ineligible cases, therefore decreasing congestions at the distribution sites. This in turn helps relieve the pressure and workloads of on-site staff, improve the care provided during outpatient therapeutic distributions and through reducing workloads improve staff morale. Thirdly, the creation of an outreach support network linked to the programme leads to increased compliance with treatment, thereby helping to increase recovery rates. The combination of increased coverage and improved recovery rates result in substantially increased impact. If mobilisation is addressed in an appropriate manner, relatively low inputs are required to achieve these positive results making mobilisation a highly cost effective activity.

Is Community mobilisation always possible?
CTC experiences to date indicate that community mobilisation is always possible. Evidence from a wide range of contexts, including emergency and development programmes in Malawi, North and South Sudan, Ethiopia, Niger, Indonesia and Zambia, all suggest that community mobilisation can and should play a role – albeit in different forms. Mobilising communities to engage with CTC programmes requires that implementing agencies have the necessary local knowledge and connections in the field to adapt generic mobilisation techniques to each specific context. During the five years of CTC development we have never encountered obstacles that prevent community mobilisation activities altogether although the form of mobilisation has had to vary a great deal.

A second question is whether community mobilisation is always advisable or are there times when mobilisation can prove to be counter-productive? Based on our experience, this seems unlikely. Regardless of the context, interaction with communities has always proved feasible and positive in terms of its contribution to traditional programme indicators. A central element in community mobilisation is increasing knowledge about how communities deal with food stress and malnutrition and it is difficult to see how this could be counter-productive. In our experience, the more agencies know about how communities deal with issues surrounding food and nutrition, the better.

Outpatient Treatment and Community Mobilisation
Recently MSF-France have been developing a model of domiciliary care commonly referred to as Outpatient Treatment (see Field Exchange 28). This model draws heavily on many of the design features of CTC, emphasising high coverage and decentralisation but does not include any measures of community mobilisation. *"Outpatient care (synonymous with ambulatory care)"* write Latti & Grobler-Tanner *"focuses on the outpatient treatment of the majority of severely malnourished children and seeks to maximise coverage in the short term. Community based therapeutic care (CTC) has similar aims but differs in that it places considerable emphasis on community mobilisation and participation that aims to maximise coverage and ensure the longer term viability of the programme"*[2] This same piece then goes on to highlight some of the reasons why programmes might opt for one or the other, describing how: *"due to insufficient staffing or other programme obstacles, active case finding of malnourished children may not be feasible in every situation. For example, MSF enrolled 60,000 children in Niger without community outreach activities beyond active participation by mothers (caretakers) themselves"*.

We believe there are two important issues here. The first is to understand that active case-finding and community mobilisation are not the same thing. Some CTC programmes have found it necessary to limit the amount of active case-finding in order for example, to prevent MOH clinics just starting up programmes becoming overrun with cases before they are sufficiently established to handle the numbers. However, this has never meant that mobilisation has not remained a high priority and in practice fragile MOH start-ups require increased mobilisation in order to try and help reduce the numbers of inappropriate referrals to distribution sites. CTC programmes in Ethiopia, for example, have placed an emphasis on increasing awareness in the communities by disseminating key messages about the programme through formal and informal channels of communications. By increasing awareness and clarifying who is eligible for admission and also where the services can be accessed, these programmes have seen a gradual and manageable rise in appropriate presentations resulting from self-referrals (passive case finding) – without more formalised active case-finding mechanisms creating an initial rush of new patients. The second source of confusion is mobilisation requires substantial amounts of resources. In our experiences of implementing CTC programmes in a large number of emergencies, staffing levels have seldom been a major problem preventing mobilisation activities, including active case finding. This is because a small, locally-recruited team of motivated and influential individuals can help facilitate a much larger process of community involvement. This activist approach although less resource intensive does require more strategic thinking and a better understanding of how information flows within communities on the part of implementing agencies.

In the articles quoted above there appears to be an underlining belief that because one programme has achieved high admission numbers without mobilisation, it follows that mobilisation is not a fundamental requirement for programme uptake or effectiveness. The evidence for outpatient care certainly appears encouraging. The MSF programme in Maradi (Niger) admitted over 63,000 severely malnourished children – making it the largest nutritional intervention in the organisation's history[3]. A programme of such scale (and quality – with its 91.4% recovery rate) is a major achievement and demonstrates the huge potential of the outpatient treatment of SAM. However, to evaluate the public health impact and the potential utility of this model requires more information. In particular, information on coverage and cost is required in order to evaluate whether such a model could be replicated effectively. The experience of implementing CTC in Niger (in Maradi, Zinder, Tahoua) suggests that the scale of the crisis coupled with highly visible interventions led to significant numbers of community self-referrals. Given the high number of admissions to the MSF programmes in Niger, it is likely that most of those in need were somehow passively sensitised to the existence of the MSF programme. However, just because this happened in one high-profile and extremely large intervention does not mean that it will necessarily happen in other less high-profile interventions. Our experiences indicate that this probably will not be the case and we believe that more evidence is required before generalisations can be made from this specific, hitherto unique, experience. As programmes evolve from emergency into longer term interventions, passive case finding be-comes increasingly important as the resource constraints of most MOH primary health care programmes seldom if ever allow for the employment and supervision of sufficient numbers of outreach staff to provide effective active case finding over the long-term.

Evidence Based Change – why data should shape trends
Evidence-based practice is having important positive impacts across the whole of medicine. In humanitarianism, the change from inpatient therapeutic feeding centres (TFCs) to CTC is a good example of how a large evidence base, collected over several years, can radically improve practice. However, there is still huge room for the improvement of selective feeding interventions and a great need for further evidence. The new MSF data makes an important contribution to that process. However, now that we finally have an evidence-based model for selective feeding, changes to that model should be based on appropriate evidence that allow for comparisons of effectiveness. As yet, there is no evidence base to support the hypothesis that outpatient care in the absence of community mobilisation is more effective that the standard CTC model. The available data from the MSF Niger outpatient treatment programme shows that a well equipped INGO can treat very large numbers of children; far larger numbers than previously possible using an inpatient model of care. It also demonstrates that outpatient care can achieve good outcomes. However, the data presented to date do not tell us whether the absence of community mobilisation led to lower coverage rates or higher costs/cure. Decisions over the importance of community mobilisation

require this evidence and in its absence the standard of care should be to include community mobilisation. The role of an outpatient care model without community mobilisation needs to be further investigated.

There are currently an estimated 10-13 million cases of severe acute malnutrition worldwide, accounting for between one and two million unnecessary deaths[4]. Decentralised models of outpatient care, armed with the introduction of new Ready to Use Therapeutic Foods (RUTFs) are providing us with an unprecedented ability to make a real difference. Ensuring that all those who need it receive care will require that delivery models are appropriate to the primary health care setting in developing countries. There are now several CTC programmes that have been going for more than 4 years and are largely implemented by National MOHs and evidence is mounting that to be effective over the long-term these require a more meaningful partnership with beneficiary communities, beyond the traditional provider-beneficiary model of humanitarian programming. This may ultimately prove a more challenging paradigm for emergency nutrition agencies to accept than the shift to outpatient treatment. At a time when more and more CTC programmes are looking to transition over to MOH control, downplaying the role of community mobilisation based on a single, large-scale humanitarian programme implemented by a well-resourced INGO, is premature.

Regards,
Saul Guerrero and Steve Collins,
Valid International

Valid Int, Sudan, 2004

Training female outreach workers in Sudan

[2] Latti, K & Grobler-Tanner, C (2006). *Highlights from MSF-hosted meeting on outpatient and community based therapeutic care.* Field Exchange 27, Emergency Nutrition Network (p. 15)
[3] Tectonidis, Milton, et.al (2006). *Scaling up the treatment of acute childhood malnutrition in Niger.* Field Exchange 28, pp.2 – 4, July 2006
[4] Collins, S, Dent, N, Binns, P, Bahwere, P, Sadler, K, Hallam, A (2006). *The management of severe acute malnutrition in children.* (The Lancet, 2006, in print)

Multi-storey gardens to support food security

By Mary Corbett

An example of the larger growing bags in Kakuma Camp

Mary Corbett is an independent food security and nutrition consultant working on short contracts with NGO's, UN agencies and donors. Her work has been mainly in Africa and Asia, involving assessments, programme reviews and evaluations, on the job technical support and training and some formal training.

The information shared in this article was recorded during a consultancy for UNHCR/WFP. Mary would like to acknowledge the work and support of UNHCR and WFP HQ, their field staff, the local workers and GTZ. Also thanks to Allison Oman for her input and photos. The opinions expressed in this article are those of the author only.

Addressing food insecurity in resource poor settings is difficult in any context. However, in protracted refugee camp situations, where people are almost entirely dependant on humanitarian assistance, the challenges are even greater. The development and adaptation of multi-storey gardens (MSG) is an innovative and exciting way to address food insecurity, particularly in areas where land and water are scarce. This has been tried in refugee camps in Kenya with impressive success. The refugee camps of Dadaab and Kakuma have been in existence for almost 15 years and both acute and chronic malnutrition have remained high in the camps, in spite of numerous efforts to tackle the problem. A key factor is long-term dependence on food assistance involving a monotonous diet of cereal, pulse and oil, and sometimes a corn soya blend (CSB). Refugees do not readily have access to fresh fruit and vegetables or fresh meat.

The Dadaab camps are situated in Western Kenya, a semi arid region with limited rainfall. The refugees have not been given access to land to cultivate, apart from land close to their houses. The MSG approach combines aspects of dietary diversification, nutritional education, women's empowerment, income generation, community promotion and self-reliance.

With financial support from the Canadian Initiative through GTZ (German Development Cooperation) and technical support by GTZ, uptake of the MSG approach in Dadaab was particularly high - a total of over 5,000 households (HH). In Kakuma camp the uptake initially was lower, although the interest is now substantial and over 2,500 HH have now taken up MSG here.

Setting up the Multi-Storey Gardens

The World Food Programme (WFP) have supported the project through provision of empty 50kg cereal bags and empty oil cans. The cereal bags were used for growing the produce. The tin cans were filled with rocks and placed in the centre of the upstanding cereal bag. There were holes drilled in the sides and bottom of the tins. Holes are not drilled in the bottom of tins placed at the bottom of the bag. A soil blend is placed in the bag between the bag and the tins. Seeds are then planted in the soil on the top of the bag. When it is time to 'thin out' the seedlings, some of the small plants are removed from the top and, after holes are made in the sides of the bags, the seedlings are planted along the sides of the bags. This means the top and sides of the bags are utilised for growing.

In areas where water is in short supply this is a very economic way to utilise extremely limited resources. Each bag only needs to be watered twice daily with 5 litres of water. The water is poured into the tin at the centre of the bag and drains through the stones down through to the end of the bag of soil irrigating all the plants throughout the depth of the bag. It is recommended to use the household waste water after rinsing out clothes or bathing, and also waste water from around water points. However, it is important to incorporate and integrate waste management into the programme so as not to further limit water resources necessary for other activities. It appears that the standard kitchen gardens require much more water than that used in the MSG approach.

Produce

In Kenya the produce grown in the MSGs include a number of leafy green vegetables, tomatoes, okra and eggplant. Normally when the green leafy vegetables are ready for harvest they can be harvested 2-3 times weekly. Where a diet is extremely bland this can make a huge difference to the nutrition content of the diet, increasing appetite for food and improving general well being. It can be particularly beneficial to support the diet of young children. It has been recommended that each HH needs a minimum of five MSG bags so as to have enough produce to make a significant impact on dietary diversity within the household and also assist in income generation. The approach has proven to be a labour efficient means of increasing food security in the household.

Training

GTZ set up nurseries to plant seeds and grow seedlings. These nurseries are also used as demonstration areas for training refugee

incentive workers hired by GTZ. The role of the refugee incentive workers is to help to roll out the programme and sensitise the refugee population. They run the seedling nursery, assist in the trainings, do community outreach, follow up on beneficiaries and answer their questions, and construct many of the MSGs. During training, refugees are instructed on how to mix soils, prepare the MSG bags and plant seeds and seedlings. They also are given training on irrigation and use of household waste water. Some training material was developed.

Reasons for poorer uptake in Kakuma

- In Kakuma, the initial plan of action was less developed by the NGO and the personnel employed were not convinced that this initiative could work. Therefore the uptake of the MSGs was much lower among the refugee population.
- in Kakuma, the training of incentive refugee workers was less developed and therefore there was a much smaller uptake of the MSGs.
- In Kakuma camp, the staff were les motivated. This contrasted with Dadaab camp where even though the programme took time to get up and running with some issues that needed resolving, due to one very dynamic and energetic individual, the commitment of the staff ensured that the programme became successful.
- The refugees in Kakuma camp were not aware of the benefits of the MSGs and the potential to support food insecurity as the NGO staff did not have the same belief in the programme.
- The knowledge of harvesting of rain and waste water was less pervasive in Kakuma camp.

Although the uptake of the approach in Kakuma camp was initially lower, this did improve and they also 'made it their own' by adapting the technique. Instead of just growing the produce in one 50kg cereal bag, the refugees sewed a number of bags together to make a larger growing area with the same overall concept of placing tins with stones for assisting in watering and irrigation (see picture).

Costing

MSGs are an inexpensive intervention as it is a low input programme. The initial costs included setting up of the programme, hiring of staff, training of incentive workers, and developing training material on MSG techniques and nutrition issues. Other costs included tools and seeds for the programme. A one year budget of 300,000 USD supported the development of 5,155 MSG's in Dadaab and 2,500 MSG's in Kakuma camp. With anaemia levels for pregnant and non-pregnant women and children under 5 years at over 70% and malaria endemic around the camps, it is hoped that the introduction of fresh vegetables through the programme, in particular green leafy vegetables, will assist in reducing the extremely high levels of anaemia.

Benefits of the multi-storey gardens approach

Along with benefits already mentioned (dietary diversification, inexpensive, income generation), the approach encourages self-reliance and empowers women. Produce can be grown all year round and the production of varied produce can be used in practical nutrition education. If the WFP resources used here are not available, other materials can be adapted. The concept of micro agriculture using a small amount of space and water remains the central element. This is a low input garden activity that could be targeted at households where labour is constrained, e.g. households with people living with HIV/AIDS or orphans, and should be considered in areas where HIV/ AIDS prevalence is particularly high.

For further information, contact: Mary Corbett, email:corbettmary@eircom.net

Case Study

Halima Mohamed Aliyow, MSG female gardener, Dadaab Camp

Some beneficiaries of the MSGs in Dadaab camps, Kenya

I have a family size of fifteen, including two children under five years and three nieces and nephews under five. I also have an older disabled son and my blind father living with me. I was very concerned as we never had quite enough to eat and the old man in particular was always tired of having the same food each day. I began with five sacks for use in MSG, but I enjoyed it so much I asked GTZ for an additional five sacks which they gave me. I am now growing okra, spinach, tomatoes, coriander, and Kenyan spinach. I grow enough for everyone in the household to eat, plus I can give a little away to my neighbours.

I feel that my family is healthier, we are happier and I do not worry about feeling hungry. In the past I used to sell quite a lot of the food ration to buy things like tomatoes and spinach, but now it is not necessary to do that.

I would like to become a Model Gardener for my block and then I could teach people about growing and cooking vegetables. If I could double the number of plants I am growing I could sell the excess to neighbours. Already people come to see the garden and want to buy my produce. I use run-off water from the tap stand to water the plants and they just grow and grow and grow.

M Atkinson/British Red Cross, 2006

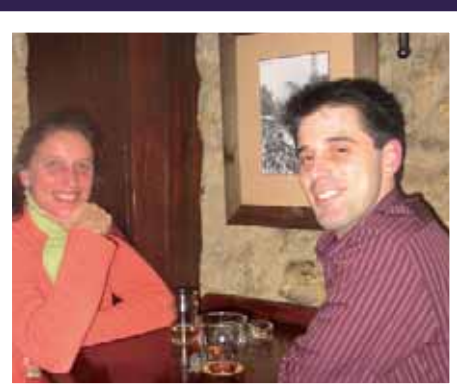
Mohammed Salih (WFP VAM) explaining SCUK pre-conflict Food Economy Zones with Alessandro DeMarreis (Senior Food Security Adviser, FAO Emergency Co-ordination Unit Africa) looking on.

MMcGrath/ENN, Namibia, 2006

James Achanyi-Fontem, National Coordinator,Cameroon Link, and Mary Materu, Director of COUNSEUTH (see agency profile), attending IBFAN regional meeting on IFE in Mbabane, Swaziland in June, 2006.

People in aid

Gearldaine Maclaine and Ali Maclaine (Independent)



Pascale Delchevalerie (MSF-Belgium) and Mark-Andre Prost (LSHTM)

M Atkinson/British Red Cross, 2006

Participants (UN, government, ICRC, NGOs and donors) from Darfur wide Nutrition, Food Security & Livelihood Information Systems Workshop held in Nyala, Darfur in March 2006

M Atkinson/British Red Cross, 2006

Participants in IFRC Food Security Assessment Training held in Swaziland on 25-28 September, 2006

M Atkinson/British Red Cross, 2006

FAO Darfur Officers - Left to right Mohammed Al Hafiz (Geneina), Eisa Nour Hassab (Nyala), Beshir Abdul Rahman (Al Fashir).

Snapshots from the IFE meeting held in Oxford, 1-2 November, 2006

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Patrick Karanja, FAO, Caprivi, Namibia

J Hourihan/FAO, Namibia

Participants and support staff in one of the JFFL Schools in Namibia (see field article)

People in aid

J Hourihan/FAO, Namibia

Children participating in one of the JFFL Schools in Namibia (see field article)

MMcGrath/ENN, Namibia, 2006

Local youths volunteering to help in site clearing at Seim Nujoma Combined School, Kebbe

MMcGrath/ENN, Namibia, 2006

MMcGrath/ENN, Namibia, 2006

Staff of the Likunganelo Fish Farm, run by the Minisitry of Fisheries, in Caprivi, Namibia

WFP, Namibia, 2006

Jeffita Chikwanda, WFP Field Monitor in Katima, Caprivi region of Namibia

MMcGrath/ENN, Namibia, 2006

Christine Namushi Matomola (Namibian Red Cross) and Lilian Mutinta Buiswatelo (Ministry of Gender, Equality and Child Welfare) Caprivi, Namibia

MMcGrath/ENN, Namibia, 2006

John, driver with WFP, and Jeffita, WFP Field Monitor, at work in Katima

MMcGrath/ENN, Namibia, 2006

Marie McGrath (ENN) and Patrick Lubanda (Africare) during ENN visit to Caprivi, Namibia

Correction

The citation for the research article published in FEX 28 on iron and vitamin A deficiency in Africa refugees (p6) had an error, and should have been 2005 rather than 2006, apologies.

The correct citation is: Seal et al. (2005) J. Nutrition 135, 808 - 813

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On the cover
Heading off to water one of the vegetable plots at breaktime, Sam Nujoma Combined School, Kebbe, Caprivi, Namibia.
ENN, Namibia, 2006

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The ENN would like to acknowledge a combined contribution of £500 from our regular printers, Lavenham Press and their paper merchant, Howard Smith, to support this issue of Field Exchange to mark our registration as a charity in the UK.

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.

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