

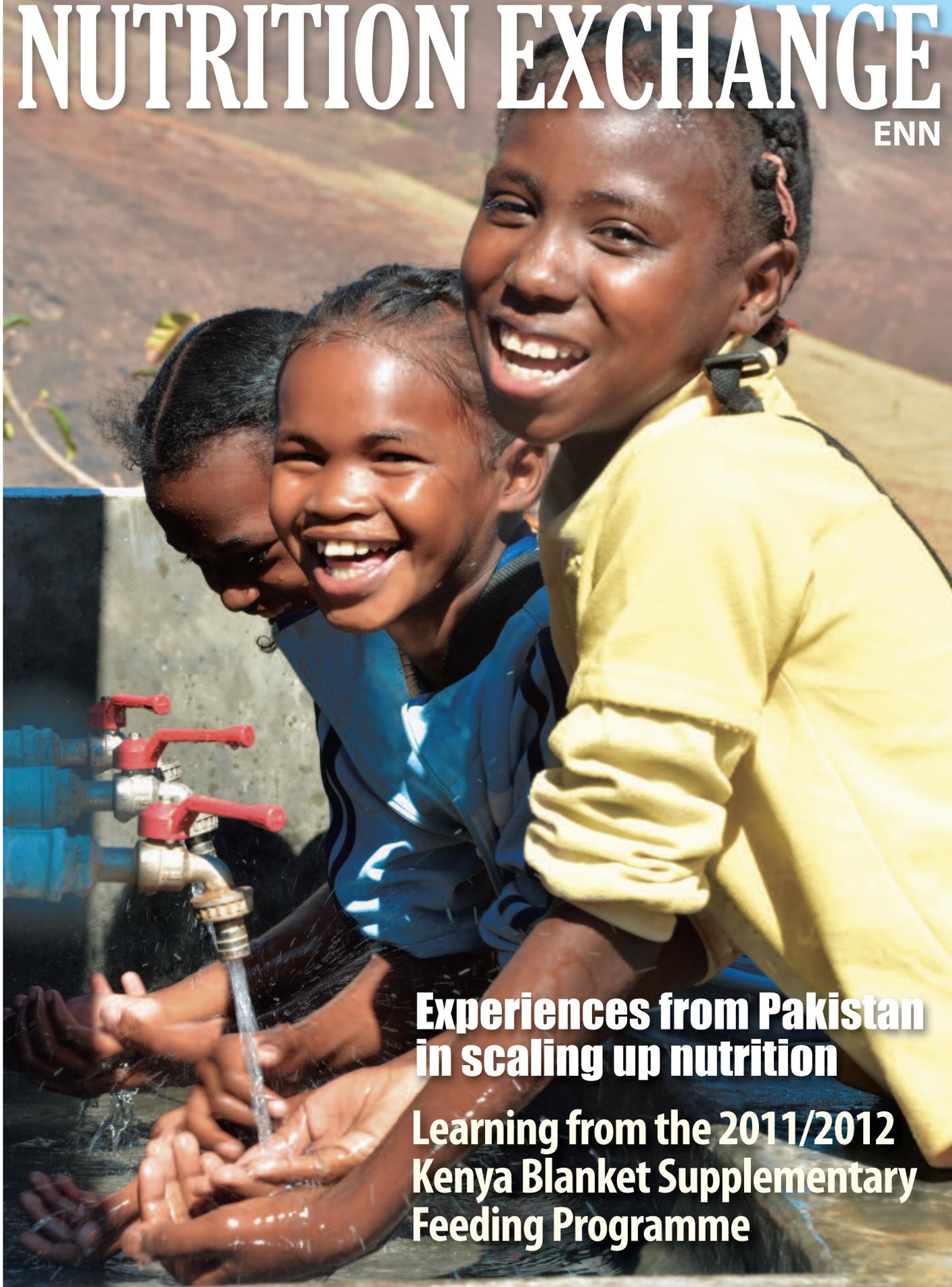
Cash for Somali
refugees

Enlisting donkeys to improve
nutrition in Ethiopia

Feasting on vegetables
in Tanzania

NUTRITION EXCHANGE

ENN



**Experiences from Pakistan
in scaling up nutrition**

**Learning from the 2011/2012
Kenya Blanket Supplementary
Feeding Programme**

Contents

3 Editorial

4 Article summaries

4 Wasting and stunting

20 Infant and Young Child Feeding and Behaviour Change

23 Agriculture, livelihoods and resilience

30 Maternal and adolescent girls nutrition

31 Water, Sanitation and Hygiene and Nutrition

32 Governance and coordination

35 Events

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Cover photos

Front cover: A new handwashing facility at Ambohimasina public primary school. Talatan' Angavo commune, Madagascar, October 2013. WaterAid/Ernest Randriarimalala

Back cover: Water Aid will be installing clean water via pumps at the end of 2014, Ambohimahatsinjo, Madagascar. WaterAid/Abbie Trayler-Smith

Inside front cover: IMC Donkeys contributing to the management of SAM children, Ethiopia. Birehan Gurmu, 2013

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What is Nutrition Exchange?

Nutrition Exchange is an ENN publication that contains short, easy-to-read articles on nutrition programme experiences and learning, from countries with a high burden of malnutrition and those that are prone to crisis. Articles written by national actors are prioritized for publication. It also summarises research and provides information on guidance, tools and upcoming trainings in nutrition and related sectors.

Nutrition Exchange also includes key articles, updated information on references, guidelines, tools, training and events. It is available in English, French and Arabic.

How often is it produced?

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About the ENN

The ENN enables nutrition networking and learning to build the evidence base for nutrition programming. Our focus is communities in crisis and where undernutrition is a chronic problem. Our work is guided by what practitioners need to work effectively.

- We capture and exchange experiences of practitioners through our publications and online forum
- We undertake research and reviews where evidence is weak
- We broker technical discussion where agreement is lacking
- We support global level leadership and stewardship in nutrition.

Editorial

We are pleased to share with you Issue 4 of Nutrition Exchange (NEX). In addition to the usual summaries of important nutrition-related publications, this issue features 12 original articles from our readers across the globe. This is a marked increase from the three original articles we published in Issue 3 and is a trend that we hope continues. Our goal is for NEX to become the main nutrition publication written by national actors for national readers. A warm thank you to all the national authors for taking the time to document and share their valuable experiences.

The 12 original articles describe a wealth of experiences with implementing nutrition specific and sensitive programmes across Africa and Asia. They include articles from Tanzania, The Gambia and Somali refugee camps in Kenya on increasing access to diverse foods through innovative approaches such as women's gardening and savings groups and through cash transfers. Two articles from Pakistan focus on the experiences with putting in place the governance needed to scale up nutrition and address sub-optimal infant and young child feeding practices. There are six articles from Kenya, Ethiopia, Chad and Pakistan which describe different approaches to addressing high levels of acute malnutrition in resource constrained environments and from Somalia, there is a description of a project to increase school attendance, particularly for girls.

Key publications and meetings reviewed in this issue highlight the global recognition of the importance of preventing stunting, the physiological links between wasting and stunting and the policy and programme implications as well as the associations between economic growth and child undernutrition.

Two reviews on the links between water, sanitation and hygiene (WASH) and child growth are also summarised. WASH and nutrition is a growing area of research and programme interest and we hope to feature more experiences on the practical links between WASH and nutrition in our next issue. We also summarise two important reviews on maternal and adolescent nutrition.

This issue does not feature a large amount of information on news and events. This is because the ENN is improving its website so that from July 2014, current news, events, trainings, relevant links and job openings will be an ongoing, continually updated feature. The website will also feature the traditional content of the ENN's email newsletter and thus the last email newsletter will be issued in June. Please check out the changes at www.ennonline.net and stay current by visiting regularly!

The Arabic and French translation of this issue will be ready by July 2014.

As always, we welcome your feedback on the publication and your ideas for articles for our next issue which will be published in May 2015.

Yours sincerely,

The Nutrition Exchange Team at the ENN
(Carmel, Valerie and Chloe)



Many people underestimate the value of their individual experiences and how sharing them can benefit others working in similar situations. ENN aims to broaden the range of individuals, agencies and governments that contribute material for publication in Nutrition Exchange.

Many of the articles you see in Nutrition Exchange begin as a few bullet points that authors share with us. The editorial team at Nutrition Exchange can support you in writing up your ideas into an article for publication.

To get started, just email us (nutritionexchange@ennonline.net) with a summary of your ideas (in less than 500 words) and why Nutrition Exchange readers might be interested in your experiences.

If you know of others working at a national level, particularly local government staff and local NGOs, who you think should contribute, please pass these details on.



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Joint UNICEF/WHO/The World Bank Child malnutrition database

In September 2013 UNICEF, WHO and the World Bank updated their joint database on child malnutrition and released new global and regional estimates for 2012. For the first time, the database contains global and regional estimates of wasting and severe wasting.

Main Findings

Stunting

Globally, 162 million under-five year olds were stunted in 2012.

The global trend in stunting prevalence and the burden continues to decrease. Between 2000 and 2012 stunting prevalence declined from 33% to 25% and burden declined from 197 million to 162 million.

In 2012, 56% of all stunted children lived in Asia and 36% in Africa.

Underweight

Globally, 99 million under-five year olds were underweight in 2012.

The global trend in underweight prevalence continues to decrease, but at a slow pace. Between 1990 and 2012 underweight prevalence decreased from 25% to 15%, which remains insufficient to meet the Millennium Development Goal (MDG) of halving the 1990 prevalence by 2015.

In 2012, 67% of all underweight children lived in Asia and 29% in Africa.

Wasting and severe wasting

Based on prevalence data¹, globally, 51 million under-five year olds were wasted and 17 million were severely wasted in 2012.

Globally, moderate wasting and severe wasting prevalence in 2012 were estimated at almost 8% and just less than 3% respectively.

In 2012, approximately 71% of all severely wasted children resided in Asia and 28% in Africa, with similar figures for wasted children at 69% and 28% respectively.

Overweight

Globally, 44 million under-five year olds were overweight in 2012.

The global trend in overweight prevalence and burden is rising. Between 2000 and 2012 overweight prevalence increased from 5% to 7% and the global burden increased from 32 million to 44 million. The rise in overweight prevalence is reflected in all regions, while the burden is increasing in Africa, Asia and the developed countries, but stagnating in Latin America and Oceania.

In 2012, overweight prevalence was highest in Southern Africa (18%), Central Asia (12%) and Southern America (7%).

Data Dashboards

Six on-line interactive dashboards were developed to allow users to explore the entire time-series (1990 – 2012) of global and regional estimates of prevalence and burden for stunting, underweight, overweight, wasting and severe wasting indicators by various country regional and income group classifications.

The dashboards are available on-line

http://www.childinfo.org/malnutrition_dashboard.html

¹ Note that there is a strong case for estimates of wasting to be based on incidence data as it is thought that prevalence data underestimates the true burden globally.

Using Mid-Upper Arm Circumference to end treatment of Severe Acute Malnutrition leads to higher weight gains in the most malnourished children

Nancy M Dale et al.

PLOS One, February 2013, Volume 8, Issue 2

The UN Joint Statement on Community-based Management of Acute Malnutrition (CMAM) (2009) recommends that children admitted to therapeutic feeding programmes on MUAC < 115mm, should be discharged after a 15-20% weight gain. When this recommendation is followed, the most severely malnourished children receive a shorter treatment compared to children that are less severely malnourished.

MSF Switzerland conducted a study using MUAC as both admission and discharge criteria in an emergency nutrition programme in Gedaref, North Sudan to see whether it eliminates the effect of shorter treatment duration in most severely malnourished children.

The programme treated children aged 6 to 59 months with MUAC < 115 mm and/or mild oedema. Children with good appetite and no severe medical complications were admitted to the outpatient therapeutic programme (OTP). Children requiring stabilization were referred to the nearest inpatient facility.

Based on evidence that there is very low mortality in children with MUAC above 125 mm, discharge criteria for children in the OTP was set at MUAC > 125 mm for two consecutive measurements plus stable weight or continuing weight gain, absence of bilateral oedema for four weeks, clinically well and with good appetite.

Outcomes of the children in the OTP were within SPHERE standards with proportions of cured, defaulter and deaths being 82%, 15% and 1% respectively. The remaining 2% were referred to the main district hospital. The median length of stay of all children was 60 days. Children with lower MUAC at admission had longer durations of treatment. The overall percent weight gain of all children was 21 and the majority of

children gained more than 15% of their weight at admission.

This study shows the following:

- Using MUAC as a discharge criteria eliminates the effect of shorter treatment in most severely malnourished children and longer treatment for least severely malnourished, as observed with percent weight gain.
- As a result of the longer treatment, the most severely malnourished children such as those with the lowest MUAC on admission achieve a higher percent weight gain than the recommended 15%.
- The use of MUAC as discharge does not seem to increase the length of stay and thus the cost of the programme, though this may vary in different contexts.

The authors conclude that using a discharge criteria of MUAC > 125 mm is feasible and led to acceptable durations of treatment and weight gains in this setting. They suggest that the validity of this cut-off be confirmed in other settings.

Community based screening for acute malnutrition in the communities of Phnom Penh



Samaritan's Purse, Cambodia, 2010

Critical windows for nutrition interventions against stunting

Andrew M Prentice et al.

Am J Clin Nutr. May 2013; 97(5): 911-918

An analysis of early growth patterns in children from 54 resource-poor countries in Africa and Southeast Asia shows a rapid fall off in the height-for-age z-score during the first two years of life and no recovery until children are five years or older. This finding has focused attention on the period of conception to 24 months as a "window of opportunity" for interventions against stunting and has gained considerable political backing for investment targeted at the first 1000 days. A view has emerged that interventions outside this window are unlikely to have any effects.

While supporting the importance of the 1000 days and interventions to address undernutrition during this period, this paper presents analysis showing that there are other windows of opportunity to address stunting that should not be overlooked and might well offer additional points for intervention. The authors argue that adolescence represents an additional window during which growth-promoting interventions might yield substantial life cycle and intergenerational effects.

Maternal and Child Nutrition (MCN)

Special Issue: Promoting Healthy Growth and Preventing Childhood Stunting, September 2013 (Volume 9, Issue Supplement S2 Pages 1–149)

Promoting healthy growth and preventing childhood stunting: a global challenge (editorial)

Adelheid W. Onyango

The World Health Assembly has set a target to reduce the number of under-five stunted children by 40% (2010 to 2024). There have been significant global political, technical and academic efforts to address this including the Global Nutrition for Growth Compact which defines countries commitments and mobilises resources for nutrition. The Maternal and Child Nutrition Lancet Series outlines interventions expected to have the largest impact on tackling undernutrition and overweight, their cost, the importance of nutrition-sensitive

interventions and how to leverage current political momentum. At the same time, WHO is implementing the Promoting Healthy Growth and Preventing Childhood Stunting project with the aim to develop tools and a framework for countries to set and implement stunting reduction agendas and shift the national focus from underweight to stunting. This special supplement is a collection of papers that reflect on multiple aspects of the challenges presented by the stunting reduction goal and ways to address them.

The economic rationale for investing in stunting reduction

John Hoddinott et al.

While there is a clear intrinsic rationale for investing in reducing stunting, the rationale for public investments that reduce stunting is strengthened if it can be shown that these have substantive economic returns. This paper outlines the economic rationale for investments that reduce stunting with an aim to generate credible estimates of benefit-cost ratios for a plausible set of nutritional interventions.

The authors present a framework that illustrates the consequences of stunting throughout the lifecycle. An important feature of this framework is that it separates the underlying causes of stunting into those that reflect private/family decisions and those that reflect public policy decisions to undertake or not undertake investments that mitigate the risk factors for stunting.

Stunting can have several outcomes throughout the lifecycle. During the first 1,000 days, they are classified as physical, cognitive skills, socio-emotional skills and executive function/self regulation. Later in the lifecycle, outcomes also include labour force participation, wage earnings, marriage market outcomes, involvement in crime and violence, adult

health and nutritional status, and fertility and parenting of the next generation. The framework points to a number of potential positive impacts over the life cycle of investments that reduce stunting.

The key empirical research around stunting outcomes including loss of physical growth potential, cognitive impairments and increased risk of chronic disease are presented and gaps are identified.

Estimates of benefits associated with each nutritional intervention to reduce stunting (outlined in the Lancet Maternal and Child Health Series) are presented. Consensus on their effectiveness and their costs are discussed. The benefit: cost ratios associated with implementing these interventions exceed one in all countries considered in their study (which is larger than many development interventions).

The authors conclude by suggesting that countries that want to generate and sustain broad-based wealth are likely to find that scaling-up these identified nutrition interventions are some of the best investments that they can make.

Additional articles in the MCN Supplement:

- The World Health Organization's global target for reducing childhood stunting by 2025: rationale and proposed actions
- Contextualising complementary feeding in a broader framework for stunting prevention
- Multi-sectoral interventions for healthy growth
- Parental height and child growth from birth to 2 years in the WHO Multicentre Growth Reference Study
- The economic rationale for investing in stunting reduction (summary above)
- The principles and practices of nutrition advocacy:

evidence, experience and the way forward for stunting reduction

- Key principles to improve programmes and interventions in complementary feeding
- Designing appropriate complementary feeding recommendations: tools for programmatic action
- Introducing infant and young child feeding indicators into national nutrition surveillance systems: lessons from Vietnam

Free access available for all articles <http://onlinelibrary.wiley.com/doi/10.1111/mcn.2013.9.issue-s2/issuetoc>

Association between economic growth and early childhood undernutrition: evidence from 121 demographic and health surveys from 36 low-income and middle-income countries

Sebastian Vollmer et al.

Lancet Glob Health 2014; 2: e225–34

It is presumed that increased economic growth will lead to increases in average income, especially improving the incomes of the poor, which in turn will improve access to, and consumption of, goods and services that improve nutritional status and health. However, although there have been a few studies looking at the relationship between economic growth and undernutrition, strong evidence to support this remains unclear. This study investigated whether changes in national economic growth were associated with reductions in the prevalence of early childhood stunting, underweight, and wasting.

Data on children aged 0–35 months from 121 Demographic Health Surveys from 36 low-income to middle-income countries was analysed. Overall results showed that macroeconomic growth has a null to quantitatively very

weak association with reductions in early childhood stunting, underweight, and wasting. There are several possible reasons for this:

- The growth in incomes could be unequally distributed.
- If rising incomes reach most households, they might not necessarily be spent in ways that enhance the nutritional status of children.
- Rising average incomes could be poorly associated with improvements to public services that are essential to improve the nutritional status of the population.

Most importantly, this overall finding challenges the assumption that economic growth will automatically lead to reductions in child undernutrition. These results emphasise the need to focus on direct investments in health and nutrition.



A mother with her baby being assessed at a health clinic, Chad

The effectiveness of blanket supplementary feeding programmes in preventing acute malnutrition: evidence from research carried out in Chad

ENN briefing note 2013

Paluku Bahwere et al.

Available at www.ennonline.net

To date there have been few studies on effectiveness of Blanket Supplementary Feeding Programmes (BSFPs) in preventing a deterioration in nutritional status at the individual or population level. ENN in collaboration with WFP, Oxfam Intermon, Centre de Support en Sante International and the Chad Ministry of Health at country level carried out research into a BSFP designed to prevent an increase in acute malnutrition during the 2012 food crisis in children aged between 6 and 23 months in Magalme, Chad.

Target children received 200 g/day of Super Cereals plus, lactating mothers received 220 g/day of Super Cereals plus and severely food insecure households received a family ration (450 g sorghum, 60 g pulses, 25 g oil and 5 g salt). Households with vulnerable children and classified as severely food insecure received both the Super Cereals plus for the child and the family ration.

Key findings

- The package of interventions (BSFP, cash, WASH and food price control interventions) prevented the typical 5%

increase in rates of acute malnutrition in the context of a severe food crisis, high staple food prices and annually high level of acute malnutrition in the hunger season.

- Survey results indicate a decrease in mortality rates in the intervention area during the hunger period.
- A significant number of previously well-nourished children (34.6%) went on to develop acute malnutrition during the follow up period despite the package of interventions.
- Growth velocity analysis suggests that successive hunger seasons contribute significantly to the increase in the prevalence of stunting and the effective mitigation of seasonal hunger on nutrition outcomes should not only be regarded as an intervention to combat acute malnutrition but also as a strategy to reduce stunting rates.
- MUAC <135 mm and WLZ <-1 at the beginning of the hunger season were independent predictors of acute malnutrition and could be considered as selection criteria when food commodities are scarce.
- Maternal nutrition status, defined by MUAC, is a predictor of risk to the child of developing acute malnutrition during the hunger season.



Alive and Thrive forum on stunting reduction: October 2013

In October 2013, the Government of Ethiopia and Alive & Thrive and co-hosted a Forum on Stunting Reduction: Nutrition & Beyond for Solutions. The Forum brought together more than 100 technical experts, government representatives, program implementation organizations, research institutions, donors, and invited international guests. The purpose of the Forum was to explore approaches to stunting reduction with a focus on practical guidance for the design, implementation, and evaluation of stunting reduction programmes.

The programme included presentations, videos, questions and answers and a panel of donors discussing the way forward.

See more at <http://www.aliveandthrive.org/events/2013-forum-stunting-reduction>

Some of the presentations we encourage you to review:

The role of nutrition within a broader framework for reducing stunting *Kathryn G. Dewey, PhD, University of California, Davis*

National nutrition program *Ferew Lemma, Federal Ministry of Health, Government of Ethiopia*

Multisectoral Linkages

Nutrition-sensitive interventions and programmes: How can they help accelerate progress in improving maternal and child nutrition? *Marie Ruel, International Food Policy Research Institute (IFPRI)*

Baby WASH: Sanitation and hygiene interventions to prevent environmental enteropathy, stunting, and anemia in infants *Mduduzi Mbuya, Zvitambo*

Frontline Workers

Deploying frontline workers to deliver nutrition impact: Some challenges, many opportunities *Purnima Menon, International Food Policy Research Institute (IFPRI)*

Sustainability: A new approach in community for IYCF Dr. *Raisul Haque, PhD, BRAC*

Advocacy

SUN initiative in Ethiopia *Ferew Lemma, Ethiopia SUN*

Scaling up nutrition using a multi-sectoral approach: The Uganda experience *Maureen Bakunzi, Office of the Prime Minister, Uganda*

Behavior Change

What can other family members do?: Behaviors for fathers in Ethiopia *Medhanit Zewale, Alive & Thrive Ethiopia, FHI 360*

What behavior will frontline workers do? Supporting handwashing in Bangladesh *Sumitro Roy, Alive & Thrive Bangladesh, FHI 360*

Integrated programme achieves good survival but moderate recovery rates among children with severe acute malnutrition in India

Victor Aguayo et al.

American Journal of Clinical Nutrition 2013; 98:1335-42

At any point in time, an average 8 million Indian children suffer from severe acute malnutrition (SAM). In the state of Madhya Pradesh, an estimated 1.26% of children under five years of age have SAM. The response to SAM is an integrated programme where children are initially admitted to a facility-based phase in a Nutrition Rehabilitation Centre (NRC) and after the facility-based phase, children are transitioned to the community-based phase at home. This article assesses the effectiveness of an integrated model for the management of SAM in India comprising facility and community-based care using locally adapted protocols to inform the future design and implementation of programs for the delivery of services for children with SAM in India.

Detection of SAM is conducted at the community level by Anganwadi workers, the frontline workers of India's Integrated Child Development Services (ICDS) programme. Severe wasting is defined by a MUAC < 115 mm and/or a weight-for-height z-score (WHZ) less than -3 of the median

WHZ in WHO Child Growth Standards. All children 6-59 months with bilateral pitting edema, and/or WHZ less than -3 and/or MUAC < 115 mm were admitted to the NRC. Children were treated as per WHO protocols, consisting of stabilization, transition and rehabilitation phases. Children with normal appetite and free of medical complications entered the rehabilitation phase from the day of admission. All children completed a mandatory 14-day stay in the NRC and then were transitioned to the community phase where they were followed up by community workers and returned for a follow-up visit at the NRC every 15 days after discharge.

Results and discussion

Children admitted were very young, 78.7% were 6-23 months; 55.7% were girls and 64.1% were from scheduled caste or scheduled tribe families. The authors recommend that programmes for children with SAM in Madhya Pradesh need to give priority to children younger than two years of age, particularly girls, from socioeconomically disadvantaged groups.

The following overall outcomes were recorded:

- Deaths: two children (0.1%) died while in the NRC
- Defaulters: 531 children (19.8%) defaulted (left the NRC before completing 14 days)
- Discharged: 2151 children (80.1%) were discharged from the NRC to the community-based phase of the programme.

The authors underscore the importance of the low death rate comparable to national and international standards of care. However the proportion of defaulters (32.0%) was higher than national and international standards of care. It is thought that the high default was due to the high opportunity cost to the family from their child being in a facility for 14 consecutive days. The proportion of children discharged from the programme (67.6%) was below national and international standards of care, mostly because of the significant proportion of children who defaulted the

programme before completing the required length of stay. The mean weight gain in the facility-based phase was below national and international minimum standards, suggesting the quality of the therapeutic food used in the NRC is suboptimal. The mean weight gain in the community-based phase of the programme was lower than observed in CMAM programmes elsewhere indicating that the nutrient density of the foods used in this phase was less than adequate to ensure appropriate weight gain and timely recovery.

The authors conclude that the current protocols and therapeutic foods need to be improved. Considering the burden of SAM in India, treating all children with SAM in NRCs is not operationally feasible. The experience in Madhya Pradesh demonstrates that existing health systems can be strengthened with feasible adjustments to provide effective care for children with SAM through an integrated model that comprises facility and community-based therapeutic care.

Wasting & stunting technical interest group meeting: summary points

A meeting was convened by the ENN to discuss the evidence of the relationships between wasting and stunting and the implications that this may have for programmes and policy. Key meeting conclusions were as follows:

Associations between wasting and stunting in children

- Wasting adversely affects linear growth, and wasting recovery benefits linear growth.
- During wasting there is a point at which linear growth slows and potentially stops. Though we do not know exactly when this occurs, it is thought that linear growth is regulated by body fat levels.
- Both wasting and stunting often coexist in the same child.

Shared risk factors and effects

- Both wasting and stunting are associated with increased mortality, especially where they co-exist.
- Wasting and stunting have many common risk factors as illustrated by the UNICEF conceptual framework and evidenced by the literature which fails to identify risk factors for wasting which do not also apply to stunting.
- There is good evidence that in-utero conditions and foetal growth contribute significantly to stunting at birth and during infancy; there is emerging evidence of contributions to wasting.
- Evidence suggests that height trajectory during childhood is related to initial height-for-age at birth (and by association foetal growth) and to some extent, to initial weight-for-height at birth. Fat stores may play a role.
- Infectious diseases in early childhood make an important contribution to wasting and stunting.
- There is evidence to suggest that inflammation and gut health may also play an important role in both wasting and stunting (either via the effects of chronic inflammation, malabsorption and/or appetite effects).
- There are efficacious treatments for wasting; there is little evidence of effective curative interventions for stunting.
- The prevailing separation in policy, guidance and



- resourcing for wasting and stunting limits the impact of current efforts to reduce childhood undernutrition.
- Given that wasting and stunting share many common risk factors, clearer policy directives are needed to encourage and facilitate practical links, for more integrated programming.
- In view of the seasonal patterns of both wasting and stunting there is a need ensure that donor policies facilitate early preventative interventions aimed at mitigating seasonal peaks.

Potential policy implications

- Given the evidence that weight and length at birth determine later linear growth, programmes targeting the in-utero environment, e.g. via maternal health and nutritional support, can be seen as important stunting (and potentially wasting) prevention interventions.
- The current separation between treatment and prevention programming limits both the sustained recovery of the wasted child, and the prevention of further episodes of wasting, with potential implications for linear growth.
- Programmes need to link services tackling the different risk factors common to stunting and wasting, rather than deal with each relationship in a linear fashion.

Research gaps were also identified. This work is ongoing and will conclude later in 2014. For the complete meeting summary and related papers, contact Tanya@ennonline.net



Seife Kifleyohannes, 2012

Tackling high defaulting rates in refugee camp settings – lessons from Chad

Seife Kifleyohannes Temere



Seife Kifleyohannes Temere is a Nurse Nutritionist. He has been working for International Medical Corps since 2010.

In eastern Chad there are 12 Sudanese refugee camps. Since 2004, IMC has been providing nutritional support in two of these camps: Mile and Kounoungou. The nutrition situation is precarious with a high prevalence of acute malnutrition. The Global Acute Malnutrition (GAM) has surpassed the WHO 'emergency' thresholds in the past, though in 2013 the GAM rate declined in all camps compared to 2010 and 2011 (see graph below). Micronutrient deficiencies are also prevalent; a UNHCR/IMC survey in January 2013 documented a prevalence of anaemia in 6-59 month olds at 52.6% (Mile) and 46.8% (Kounoungou). The refugees in these camps are highly dependent on humanitarian assistance and food aid.

Programme review

During 2010 and 2011, IMC's nutrition support mainly focused on the treatment of SAM and MAM; however, neither IMC nor other partners were involved in prevention activities or studies to understand the underlying causes of acute malnutrition in the camps.

In 2012 UNHCR, in collaboration with IMC, conducted a causal analysis of acute malnutrition in Mile camp. The causal framework of malnutrition (ACF/UNICEF) was used in addition to select socio-anthropological and health tools to identify the underlying causes of malnutrition. A literature review was conducted, assumptions around underlying causes were identified and discussed in workshops, and information was collected from individuals, focus groups and through observation to triangulate findings. The underlying causes of undernutrition in the camps were identified as a 1) shortage of food (food aid does not cover the refugee's household food needs for a full month and refugees were selling part of this ration to increase their purchasing power); 2) lack of access to clean drinking water; and 3) lack of knowledge on infant and young child feeding practices.

Routine programme data were reviewed to further understand the situation. Data for the month of January showed persistently high default rates in the targeted Supplementary Feeding Programme (TSFP) and

outpatient therapeutic care programme (OTP) as shown in the table 1.

The defaulter rate was well above the Sphere minimum standard of < 15%. High defaulter rates translate into poor programme coverage as children leave the programme before they have recovered. Non-response may also be linked to default because mothers may decide to discontinue their child's participation in the programme if they don't see significant improvement in their child's well-being.

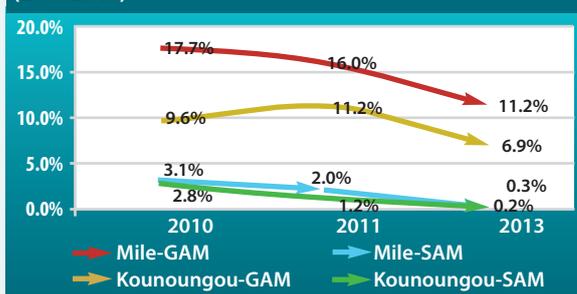
To investigate why there was such a high defaulter rate, a defaulter study was conducted. The study documented a number of barriers to bringing children to the programme. The most important barriers identified were the need for frequent travel outside the camp to visit family members (in other camps or in Sudan), collecting firewood, and daily waged labour. Other barriers and challenges to attendance included:

- When the child was sick, traditional beliefs suggested that a traditional healer could cure the illness. Mothers would therefore visit a traditional healer first, often bringing a child to the OTP or TSP for nutrition treatment after they had exhausted traditional healing options.
- The small ration given (2.8 kg every 2 weeks) was reportedly not worth the effort to enrol in the programme and culturally, the small ration was shared between all the children.
- The quality of CSB was sometimes poor due to poor storage conditions.
- The CSB was perceived to cause diarrhoea.
- There was over-crowding in the health centers.

Table 1

Camp	% Defaulters (Jan 2012)	
	TSFP	OTP
Mile	24.2% (16)	16.7% (3)
Kounoungou	19.2% (10)	17.4% (4)

Trends in acute malnutrition in Mile and Kounoungou camps (2010-2013)



- The former blanket supplementary feeding programme had become targeted, thus putting people off from attending particularly pregnant and lactating mothers.

Revised programme activities

Following the results from the defaulter assessment, and with the support of UNHCR, the IMC nutrition team focused on the following key activities to reduce the high defaulter and malnutrition rates.

- Training was conducted for the traditional healers in the identification and referral of children and pregnant and lactating women to the programme. Many traditional healers became de-facto volunteers of the programme, assessing children using Mid-Upper-Arm-Circumference (MUAC) and referring low MUAC children to the programme.
- During discussions with mothers/carers (at health centres) and the whole family (during home visits) emphasis was placed on PlumpyNut and CSB as being a treatment and not just a food.
- Integrating the provision of health and nutrition assessment and care. The provision of PlumpyNut was provided by health staff during antenatal and prenatal visits at health clinics or through home visits by traditional birth assistants or community health workers.
- Widened screening criteria. Chadian nutrition protocols use both MUAC and WFH for admission. To ensure that MUAC screening identified all low WFH children, a MUAC off < 140 mm was used to initially screen children¹.
- Conducting community sensitisation during the general food distribution as, while families travel significantly, they usually return for the GFD distribution (at the beginning of the month).

Results

After implementing these activities, the annual default rate decreased as shown in the table 2.

Conclusion

Through a comprehensive review of the programme and investigation into the causes of defaulting, UNHCR and IMC identified the key barriers to achieving better programme coverage and impact. Concrete steps to address these barriers have been taken and the default rate has improved. However, the nutrition situation remains precarious and IMC recognises that there is still much to do to prevent and treat undernutrition in the camps. In May 2012, IMC in collaboration with UNHCR began distributing Nutributter®, a lipid-based nutrient supplement, to children 6-24 months old to prevent acute malnutrition. In addition, IMC plans to continue defaulter tracing and start new activities to further improve infant and young child feeding practices and micronutrient deficiencies.

For further information, please contact Seife Kifleyohannes Temere by email stemere@internationalmedicalcorps.org

Table 2

Camp	T-SFP Overall defaulter rate per year			OTP overall defaulter rate per year		
	2011	2012	2013	2011	2012	2013
Mile	16.3%	12.2%	6.1%	13.1%	10.7%	4.8%
Kounoungou	16.8%	9.5%	4.7%	17.3%	11.2%	7.0%

¹ Children not eligible for the programme are congratulated and the carer is provided with a bar of soap.

Lessons learned from the 2011/2012 Kenya blanket supplementary feeding programme

by Joyce Owigar

Joyce is currently the Programme Officer for Nutrition within the World Food Programme in Kenya, where she has been working since 2007.

Due to recurring drought in the arid counties of Kenya, WFP and the Nutrition Sector in Kenya have implemented Blanket Supplementary Feeding Programmes (BSFPs) to prevent nutritional deterioration in vulnerable groups (particularly children less than five years of age, and pregnant and lactating women). In July 2011, in response to high levels of Global Acute Malnutrition (GAM) due to the failure of the short and long rainy seasons, BSFPs were implemented in six arid counties: Turkana, Mandera, Wajir, Isiolo, Samburu and Marsabit.

The BSFP provided a package of essential health and nutrition services including screening for acute malnutrition, health and nutrition counseling and systematic treatment, alongside food distributions (consisting of fortified corn soy blend and vegetable oil).

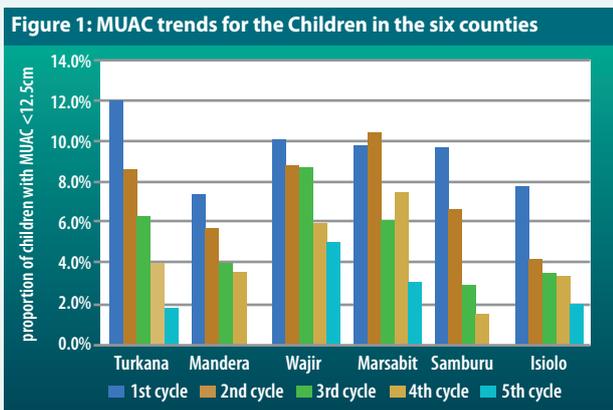
From the start of the BSFP, the nutrition situation was monitored through nutrition surveys and by screening all clients at each distribution. Nutrition surveys in June through November documented decreasing GAM levels.

Anthropometric screening (MUAC and oedema) throughout the course of the intervention demonstrates an improving nutritional status among children less than five years in successive distributions.

The overall decrease in GAM prevalence and MUAC trends for children were a positive step but it is recognized that other factors and/or programmes could have also contributed to the improved nutrition situation (Figure 1).

Achievements

Quick start. A key achievement of the BSFP was the ability to start implementation in a relatively short period of time. The 2011/2012 BSFP started in the most severely affected region, Turkana North, within one month of the release of nutrition survey findings indicating 37% GAM. The intervention started within the second month for the other critical counties, prioritizing children less than three years of age and pregnant and lactating women for the first and second distributions and including all children



less than five years of age from the third distributions. The development of a BSFP implementation strategy and good coordination among implementing partners greatly facilitated the process.

Good coverage. Planned coverage was surpassed due to extensive community mobilization activities and quality rations provided. The following table shows the planned coverage compared to actuals during the BSFP (Table 1).

Lessons learned

Several lessons were learned from the implementation of the 2011-2012 BSFP.

Comprehensive package of interventions: Children and women who had not received immunizations and supplementation¹ received these services during the BSFP. Beneficiaries also received health education and were referred for medical services where necessary. However, while food was readily available during the first and second cycles, immunizations and supplements were only available from the third cycle.

Lesson: Comprehensive planning and coordination from the onset by the nutrition sector and others, including the Division of Immunization within the Ministry of Health, would ensure a more harmonized approach.

Stock Prepositioning: Sourcing sufficient commodities (CSB and oil) quickly was a challenge. Insufficient stocks in the beginning prevented targeting of all children under five years. Priority was given to children less than three years, and pregnant and lactating women for the first two distributions.

Lesson: There is need to ensure an immediately available stock of nutrition supplies for emergency response. In 2011 WFP established a Forward Purchasing Facility at the East Africa regional level that aims to ensure stock contingencies are available to countries for specific regions. As a result, countries are better prepared for emergencies in terms of availability of supplies.

Districts	CYCLE Beneficiaries						
	Planned	Cycle 1	Cycle 2	Planned	Cycle 3	Cycle 4	Cycle 5 ²
ISILO	33,358	13,629	15,751	37,289	25,562	27,266	33,968
MANDERA	103,292	93,138	118,090	146,826	166,170	179,142	-
MARSABIT	27,503	28,049	30,501	46,577	45,233	46,488	46,581
SAMBURU	30,016	35,026	46,996	59,609	58,210	60,774	-
TURKANA	81,805	73,270	92,189	139,933	135,288	131,682	125,774
WAJIR	86,297	86,763	98,505	193,661	185,173	196,165	200,845
Grand Total	362,271	329,875	402,032	623,895	615,636	641,517	407,168
Proportion of Target	100%	91%	111%	100%	99%	103%	98%

Response Planning: The BSFP was planned for five distributions during five months (August – December 2011) with the expectation that the food security and nutrition situation would have improved by early 2012 due to the October – December 2011 rainy season. However, due to delays in food supplies and washed out roads, the BSFP continued until March 2012 (eight distributions). This resulted in additional challenges as some of the operational costs such as some level of staffing, office premises and vehicles were maintained throughout the extended implementation period. Additionally, food insecurity and vulnerability to undernutrition was different across the counties and some needed longer support while others did not.

Lesson: The timing and type of response should be designed based on the context of each area.

Early Warning Information: The existing nutritional surveillance data (based on MUAC screening) available in late 2010 and early 2011 was not credible and thus nutrition surveys were conducted. Surveys were carried out during the peak of the dry season and reflect the situation during the worst period. The BSFP was implemented to prevent a further deterioration in the malnutrition levels, but ideally should have been implemented much earlier.

Lesson: Existing surveillance systems should be supported to indicate a deteriorating situation to allow for a response to mitigate an emergency. Alternatively, surveys should be carried out earlier to allow for a timely response.

BSFP and IMAM linkage: In the BSFP strategy, individuals identified with acute malnutrition were to be referred to the Government of Kenya's Integrated Management of Acute Malnutrition (IMAM) programme. However, practically linking individuals proved to be challenging in areas where there was limited capacity for IMAM.

Lesson: For future programming, BSFP implementation should be planned alongside existing IMAM interventions to ensure full integration. Additional inputs (staff, vehicles and supplies) for IMAM implementation may be required to ensure effective linkage.

Human Resources:

Staffing: Learning from the 2010 BSFP in Kenya, the 2011/2012 BSFP developed and implemented an elaborate staffing strategy with a total of 21 staff for every 250 beneficiaries for a given site as shown in box 1.

Due to the urgency of the interventions, not all the required staff could be recruited on time, and therefore recruitment continued during the course of implementation.

Trainings: The quality of trainings varied. Trainings conducted at the onset of the response were longer and provided more detail than later trainings.

Staff turnover was high and therefore, there was a continual need for training. Recruitment of skilled staff, in particular nurses, within a very short period of time was also a challenge. Nurses were not readily available in the counties, and a number of partners had to source from neighboring counties or contact medical training colleges. This

¹ For children- Vitamin A and zinc for diarrhea treatment. For pregnant women – iron/folate, deworming and tetanus toxoid vaccine. For lactating women – vitamin A.

² The fifth cycle was not planned for Mandera and Samburu, given the change in seasons and reduced vulnerability

Box 1: Composition of a distribution team for every 250 beneficiaries:

- 4 screeners (Oedema, Height and MUAC)
- 2 registrars
- 5 crowd controllers
- 4 distribution staff (2 CSB and 2 vegetable oil)
- 2 loaders (CSB and Vegetable oil replenishment)
- 1 verification staff (ink printing)
- 1 CHW (Nurse assistant)
- 1 Nurse (distribution of systematic treatment and immunizations)
- 1 Supervisor

contributed to the delays in implementation of the systematic treatment component of the programme.

Lessons: Training should be a constant feature, with allocated funding for routine training. To reduce the high staff turnover, BSFP staff should have flexible contracts for the duration of implementation as opposed to casual contracts (which will in turn reduce the amount of trainings required). For skilled staff such as nurses, a pool of nurses should be identified for emergency recall by the health sector, to ensure availability on short notice to effectively respond to future emergencies.

Documentation: The 2011/2012 BSFP developed an elaborate

reporting system in which routine process monitoring data (number of beneficiaries, screenings, systematic treatment and stock reports) was collected from each distribution site by implementing partners and submitted to Save the Children (SCUK), who was the lead process monitoring partner. SCUK consolidated these reports and generated monthly/cycle BSFP progress reports which were the basis for discussion and follow up actions at national and county levels. Hellen Keller International also monitored the qualitative aspects of the programme and generated monthly/cycle reports also for discussion and follow up. These reports were supposed to feed into routine government reporting; however, the majority did not because reports either did not reach health facilities or did reach but were not consolidated with routine reporting at facility level. As a result, the number of beneficiaries that received systematic treatment through the BSFP was not reported in County health facility reports.

Lesson: BSFP data collection and reporting should be integrated into routine health management information systems and the documentation process, formats and requirements should be clear to all stakeholders from the start.



HOPE Pakistan, 2012

Managing acute malnutrition with scarce resources in Pakistan

Dr. Mubina Agboatwalla, HOPE Pakistan

Dr. Mubina Agboatwalla is a pediatrician and chairperson of HOPE. She has worked extensively on maternal and child health programmes including community and hospital-based programmes to treat children with SAM.

Introduction

Nutrition in Pakistan is a critical challenge with 44% of children under 5 years of age suffering from stunting and 18% with moderate or acute wasting¹. Following the 2010 and 2011 floods, levels of global acute malnutrition (GAM) increased above the WHO designated emergency threshold of 15%. To address this rise in acute malnutrition, United Nations agencies supported Government, International Non-governmental Organizations (INGOs) and national NGOs to develop community-based management of acute malnutrition (CMAM) projects. After a year, the short-term emergency funding for CMAM was finished and activities to improve the nutritional situation ceased. This article outlines the experience of HOPE, a national NGO that received support to implement emergency CMAM activities in three districts (Thatta, Dadu and Shahdadkot) and how they addressed the continued problem of high levels of acute malnutrition after the emergency funding ended.

By April 2012, external funding for HOPE's CMAM activities had finished. However, there were large areas, including the towns of Jhimpir, Sakro and Sujawal that continued to have a worryingly high GAM (21.1% based on an ACF/ UNICEF nutrition survey). HOPE decided to try to continue a reduced level of CMAM services with their existing resources in Thatta District, from April 2012 to March 2013.

Project implementation

HOPE's reduced CMAM service included 1) building capacity of the health centre staff in screening for acute malnutrition and providing nutritional counseling, 2) community mobilisation and 3) providing locally made foods to those with acute malnutrition as described below.

Capacity building. HOPE's core staff² trained ministry staff working in Maternal and Child Health Centres (MCH) and Basic Health Units (BHUs), in IYCF counseling and screening for acute malnutrition. HOPE staffs at peripheral health centres, that were not initially part of the HOPE nutrition activities, were also trained. Training included breast-feeding promotion and appropriate complimentary feeding.

¹ The State of the World Children UNICEF 2013

² Chief Nutrition Coordinator, Nutrition Officer, Social Welfare Office and Communication Officer

Community mobilisation. HOPE continued to support MNCH services in a network of peripheral health centres and community mobilisation for nutrition was integrated into these existing activities. Additionally, HOPE outreach teams, travelling to villages, integrated nutrition screening and counseling in these community visits and identified acutely malnourished children and transported them (with their mothers) to the appropriate health facility.

Outpatient Therapeutic Programme (OTP). HOPE provided limited OTP services at the level of the health facility. Children that were identified as having MAM (MUAC 11.5-12.5 cm) and SAM children without complications (MUAC <11.5 cm) received a meal and medical treatment when they presented at the health facility, while SAM children with complications were admitted to the Stabilisation Centre for inpatient care.

Ready-to-use Therapeutic Food (RUTF) was unavailable due to high costs so instead, low cost, locally available nutritious foods, such as Khirchri and Sooji (semi solid foods comprised of lentils, rice and wheat with some vegetable oil), were prepared daily. These foods were cooked by HOPE staff and fed to the children by their mothers or carers. Mothers were then instructed to prepare these foods at home daily (with the food they had in the household- no foods were given by HOPE) and return every two weeks for a follow up visit for the child.

Necessary medications for minor ailments such as cough, cold, diarrhoea, and vomiting were provided.

HOPE transported children back to their homes. Mothers were instructed to bring their children back in two weeks for a check up. As HOPE teams visited the villages every week they picked most of the children/mothers that needed to return to the programme.

Follow up visits included assessment of MUAC and weight, review of dietary history and provision of nutritional counseling. In cases of minor illnesses, medication was provided. For children who were not gaining weight, health facility staff counseled mothers and suggested feeding techniques.

SAM children (MUAC <11.5cm) with complications were taken to an inpatient hospital where their medical complications were treated. Nutritional treatment was based on the provision of khitchri, sooji, and sagodana (a rice based porridge). At the hospital mothers were given demonstrations on food preparations as well counseling on breast-feeding and IYCF practices. Patients were discharged based on > 15% weight gain and taken back to the villages by the CHWs in HOPE's transport. Patients were encouraged to go to the nearest health facility (fixed OTP) for follow up on a monthly basis.

Programme performance

This reduced CMAM service project continued for almost a year, from April 2012 to March 2013. During this time a total of 9600 children with acute malnutrition were identified in the peripheral health facilities, see table below. Of the MAM children identified, 5616 (90%) were treated and recovered, though the default rate was high, 9.5% (593 children). Amongst the SAM children without complications, 1253 children (87%) recovered while 151 children (12%) defaulted.

During this period, 231 patients (13.8% of all SAM children) were admitted to the Stabilisation Centre. Of these, 137 (59.2%) recovered, while 32 patients (14%) defaulted (as they were unwilling to stay as inpatients). No change in weight was seen in 37 patients (16%) while 18 patients (7.8%) showed a loss in weight, .

An average duration of 5.4 months was needed to recover from MAM. Children with uncomplicated SAM stayed in the programme for an average of 6 months. Records show that 86% of children were followed up in their homes by the CHWs. It is recognised that the results for recovery of SAM children with complications do not meet the International Sphere Standards. This is thought to be due to the limited nutritional support provided- there was no therapeutic milk (F-75 or F-100) or RUTF in the SC.

Challenges

The programme had many challenges.

- There was no external funding, HOPE ran the programme with their existing infrastructure, staff, and medical supplies.
- Personnel specifically dedicated to nutrition were few.
- RUTFs for the OTP or for the SC were not available and there was no F75 or F100 for inpatient care.
- Mothers were unwilling to stay in the hospital for a week or ten days because they had other children at home.

Costs

HOPE's overall health programme cost was \$68,000 for the year³. Nearly 35% of the budget went in staff remuneration, medicines 20%, logistics was 30% and nearly 15% on food. Based on HOPE's experience, this amounts to about 40% of the costs of a similar-sized donor funded CMAM programme.

Conclusion

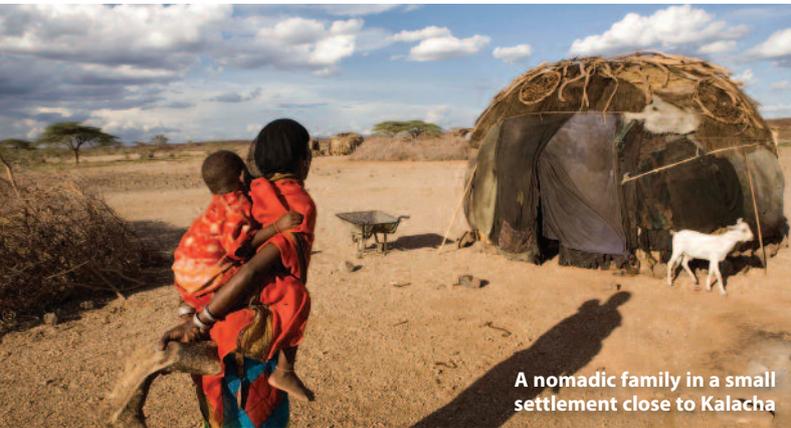
Due to limited resources, HOPE in consultation with their CMAM trained staff (pediatricians and nutritionists) designed and implemented a programme to treat acutely malnourished children using local ingredients, complemented by appropriate medical support for a year. While programme performance met international Sphere standards in terms of outpatient recovery, default was high and length of stay was much longer than recommended. In-patient SAM cases did not recover as per Sphere standards. However, community mobilisation continued as HOPE tried to foster behavior change to support positive health and nutrition practices in the absence of anything else.

While not an ideal situation, it is a situation that is often faced at the end of an emergency programme. Based on this experience, HOPE would urge donors to review their policy of short-term emergency funding to support nutrition programmes and advocate for longer term/flexible funding to enable programmes to continue beyond the emergency phase, particularly in high-burden, resource-poor, emergency prone contexts. In addition, HOPE supports the government to take ownership of nutrition services and encourages joint strategic planning to ensure sustainability.

³ This includes the CMAM activities as well as the wider health activities. As the CMAM activities were integrated into the wider health activities it is not possible to identify the cost of just the CMAM activities.

Children screened and admitted to the programme	
Total Children (under 5 years) Screened	9600
MAM Children	6240
SAM Children without Complications	1440
SAM Children with Complications	231

Programme outcomes for children in OTP			
	Recovered	Defaulted	Died
MAM Children	90%(5616)	9.87%(616)	0.1%(8)
SAM Children without Complications	87%(1253)	12%(173)	1%(14)
SAM children with complications	59.2%(137)	14%(32)	3%(7)



A nomadic family in a small settlement close to Kalacha

Gideon Mendel/Corbis for ConcernWorldwide, 2006

Meeting demand peaks for CMAM in government health services in Kenya

Regine Kopplow et al.
Field Exchange 47, p3

The humanitarian community and national governments increasingly recognise that early warning and response are more effective and less costly than late response. In practice, this remains challenging. Based on learning from the delayed response in the semi-arid lands (ASALs) of northern Kenya in 2010/2011, Concern Worldwide developed a model of CMAM surge support.

The CMAM surge model is based on the principle that early detection of acute malnutrition leads to improved treatment outcomes and fewer cases of severe acute malnutrition (SAM). The model prepares the health system to plan for, detect and respond efficiently to spikes in moderate acute malnutrition (MAM) and SAM prevalence and caseload. The model aims to strengthen the capacity of government health systems to effectively manage increased caseloads of acute malnutrition during predictable emergencies without undermining the health system, the provision of other services and on-going systems strengthening efforts.

The CMAM surge model is appropriate for contexts where:

- There are recurring, seasonal spikes in the prevalence of acute malnutrition, with risk of significant morbidity and mortality.
- Management of acute malnutrition is considered a standard government health service.
- Government health systems function to a moderate standard during non-emergency times and appropriate health system strengthening efforts are in place (where indicated).

The surge model contains a series of components that reinforce the WHO's health system building blocks (service delivery, health workforce, information, medical products and technologies, financing, and leadership and governance).

In May 2012, the CMAM surge model was piloted with District Health Management Teams and health workers in three districts of Marsabit Country; it continues to date. The model will be evaluated later in 2014 to inform possible scale up or replication in other ASAL counties.

Lessons learned to date include:

- Acceptance of the model is closely related to its simplicity
- Incorporating community systems into the model is important and an area for further development
- Regular revision of the threshold is required given changes in local context
- Decentralised governance allows for flexible and localised decision making, an opportunity for the surge model.

Experience from the pilot also highlights that localised capacity is essential given the predictable nature of 'nutrition' emergencies and this will require both external agencies and government health staff to work differently. The CMAM surge model could facilitate the realigning of government and non-governmental roles for more effective and cost effective provision of CMAM, allowing services to reach more people at the right time.

ACF Access for All short paper series

ACF has published three publications to make the case for improving the coverage of nutrition programmes and to offer the sector some evidence-based alternatives for doing so.

Volume 1 looked at the performance of nutrition programmes in the last decade and how their overall performance has remained high. Coverage, however, was found to be inconsistent throughout this period.

Volume 2 investigated the reasons for inconsistent coverage, and through some field work in Pakistan, Ethiopia and Kenya, provides a "community perspective" on the challenges faced by people wishing to use these programmes. This volume also demonstrates that the challenges faced by nutrition

programmes are also the challenges faced by other public health interventions (e.g. HIV, TB, Malaria, etc.).

Volume 3 reviewed what other health interventions have done to overcome access challenges, and how nutritionists can learn from others' experiences.

All papers are available for free on the Coverage Monitoring Network website: <http://www.coverage-monitoring.org/useful-documents/policy-papers/>



Charlotte Walford, 2013



Specially designed RUTF cabinet in use, Mereb Lehe Woreda, Tigray Region, Ethiopia

Overcoming RUTF storage challenges in Tigray, northern Ethiopia

Lulseged Tolla, Charlotte Walford and Pankaj Kumar, Concern Worldwide Ethiopia



Lulseged Tolla has been working with Concern Worldwide since 2011 on CMAM

and IYCF programmes.



Pankaj Kumar has over four years experience with Concern Worldwide in Ethiopia and has worked in a

number of other African countries.



Charlotte Walford has been working with Concern Worldwide Ethiopia since September 2012 supporting their

CMAM and IYCF programmes.

Introduction

The 2011 Ethiopian Demographic and Health Survey showed that nationally, 9.7% of children under five years old were wasted and 44.4% stunted. In Tigray Region specifically, levels of undernutrition in this age group are higher than average: 10.3% wasted and 51.4% stunted. A number of large-scale emergency and development programmes are being implemented by the Government and key stakeholders (NGOs & the United Nations) to support improved health and nutrition.

Since 2007, Concern Worldwide Ethiopia has been providing support to Tigray Region in northern Ethiopia for the treatment of acute malnutrition through an out-patient therapeutic care programme (OTP), which has now been integrated into service delivery at health facilities. In August 2009, with funding from the World Bank, the interventions were scaled-up in five woredas (districts) with high rates of acute malnutrition.

During the past four years of implementing OTP activities, it was observed that most health posts (HPs) had problems with the proper storage of RUTF and other OTP supplies. Concern Worldwide and the local government conducted an assessment of the storage situation to identify the barriers to proper storage and to develop practical and affordable solutions.

Assessment method

A qualitative assessment consisting of 1) key informant interviews with Health Extension Workers (HEWs) and health professionals (health extension programme supervisors and woreda health office nutrition experts) and 2) team observation was undertaken in 72 HPs in five woredas in the region.

Assessment results

Interviews and observation in the HPs identified two main issues with the storage of RUTF:

- **Open storage.** Most health posts consist of one room, as they were intended to only provide preventive health activities. Although recently constructed, there is often no appropriate storage space for RUTF and other OTP supplies. RUTF was rarely stored in a self-contained locked unit or separate room, as recommended for other medical supplies. RUTF was kept in a storeroom with other medical and non-medical supplies in 42% of HPs. Of the remaining HPs, 37% stored RUTF on the floor or on a bench, 14% in either locked or unlocked cabinets, whilst 7% stored RUTF in the examination room, in bags or at nearby health centres.
- **Rodents and insects.** Rats were a problem in 50% of HPs and small insects (weevils) in 4%. This was largely due to the presence of openings/holes around the edges of windows, doors or under the roof.

Programme Activities

To improve storage at the HPs, a number of changes were put in place:

- An appropriate, lockable metal cabinet to store RUTF and other OTP supplies was designed, manufactured and delivered to 90 HPs. These cabinets were initially installed in 2012 and follow up during monitoring visit revealed 100% utilization. HEWs reported no loss of RUTF due to rodents, insects or theft with the use of the cabinets. The cabinets are projected to have a shelf life of more than 15 years. The cost of one metal cabinet is approximately 450 USD.
- Health Post staff were also trained on how best to store RUTF, medications, equipment and supplies for OTP outreach, based on Ethiopia's national protocol for the management of SAM.

Further recommendations

To improve storage conditions of RUTF more widely in

Ethiopia, the following activities are recommended:

- Develop clear policy guidelines regarding RUTF handling and storage in collaboration with government
- Provide awareness for HEWs, supervisors and woreda focal person on the importance of RUTF as a medical supply, rather than a food item, to ensure proper storage status
- HEWs should receive training (pre-service or in-service) on logistics management
- Adequate, locked storage facilities for RUTF should be provided as standard either in the form of a locked cabinet or as an additional, locked room. Including such a cabinet for nutritional supplies is now considered best practice by development partners and the Government of Ethiopia as a part of National Nutrition Programme.

For more information, please contact Pankaj Kumar, pankaj.kumar@concern.net.

School feeding: experiences from Somalia

Abdikadir Issa Farah



Mr. Abdikadir Issa Farah is the Programme Manager of Formal Education Network for Private Schools (FENPS). He has been working in education in emergencies for 8 years.

Somali people have been affected by the devastations of war, drought and floods for more than twenty years. Hundreds of thousands of Somali families have been displaced and an estimated half of a million Somalis have fled the country to find safer places to live. In 2011, one of the worst droughts in 60 years devastated many regions of Somalia. Combined with the existing conflict and poor food security situation, famine was officially declared in many parts of the southern region.

In response, FENPS (Formal Education Network for Private Schools), a humanitarian organisation established in 2003, launched an education project to provide close to 5,000 school-aged children between five and 15 years in Mogadishu, the capital of Somalia, with free-of-charge quality education and nutrition through a school feeding project. The project aimed to ensure the fundamental right of people in crises to quality and relevant education, with special attention given to the safety and wellbeing of the children.

The project was implemented from 1st January to 31st December 2013 and cost USD332,880. Funds were provided by various international donors through the Common Humanitarian Fund (CHF). Project expenditure covered teachers' incentives, school construction, cost for clean drinking water, food, hygiene and sanitation supplies, costs for training workshops for teachers and community education committees (CECs).

Through the project, children were given nutrition lessons where they were taught good eating habits and healthy practices. These lessons were integrated into the school curricula. After the nutrition lessons, the children were provided with a nutritious meal that consisted of fruit soup (different fruits mixed and cooked together with water and some oil), cooked rice, milk for drinking, a banana and sometimes a cooked egg and/or meat, mango juice or porridge. In addition to the meal, children were provided with a ration of supplementary food to take home. FENPS followed WFP's Food Basket guidelines to design the rations. FENPS bought foods for this programme from the local meals in the markets.

As part of the project, FENPS installed school sanitation facilities, provided safe drinking water and water for personal hygiene and trained volunteers from the community in how to maintain and service the facilities. Parents of the children were invited to workshops on nutrition so that they too could better understand the

¹ Conducted by Africa Primus Inc.

Mohamed Osman Adam, Somalia, 2013



importance of nutrition for all household members.

FENPS internal evaluations and an external mid-term review of the project¹ highlighted several positive outcomes, specifically:

- Increased children's attendance (observed by FENPS staff)
- Positive impact and attractive environment for both children and teachers (based on interviews with parents and teachers)
- Increased motivation in other school activities (reported by teachers and other education personnel).

Challenges

A key problem encountered in the project was low enrollment amongst girls as compared to boys. This is a common obstacle in Somalia along with keeping girls in school. There are a number of negative socio-cultural practices that hinder girls' enrollment in schools in Somalia including:

- Female genital mutilation (FGM) which places girls in a position to be married
- A general gender bias which typically favours boys over girls
- Child labour which disproportionately affects girls who are required to supplement the family income
- Poor public awareness on the importance of girl's education.

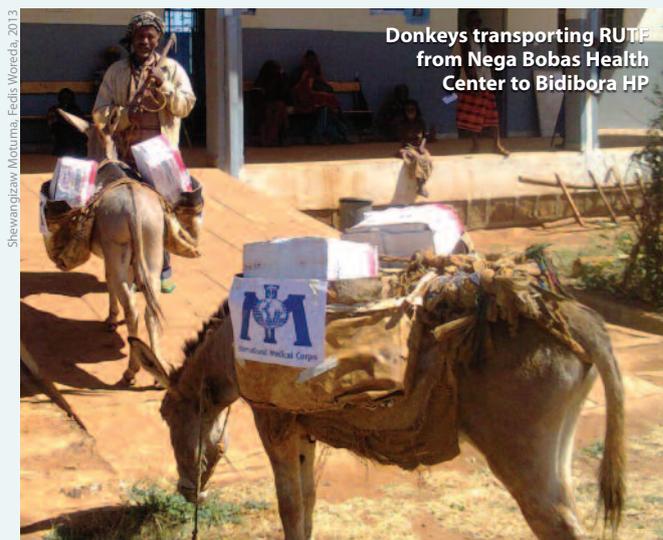
To address some of these constraints and improve girl's enrollment, FENPS provoked debates on issues that were detrimental and those that were beneficial for girls. Additionally, awareness-raising lessons were provided for parents about child marriage and FGM to overcome these challenges. Parents were encouraged to seek alternative ways of socialising girls where FGM is practiced (i.e. psychosocial support, life skills and mentoring).

Alternatives suggested:

- Educating and having dialogue in homes and schools
- Engaging group discussions among parents on issues affecting their children
- Encouraging dialogue between parents and children through schools
- Promoting participation of children in forums concerning the protection of child rights
- Sensitising parents about the importance of girls education.

More girls (51%) enrolled in FENPS supported schools in the second term.

Looking ahead, FENPS recommends integrating nutrition programmes into education response in emergencies. Although this project has finished, the need for improved education remains and FENPS is committed to supporting improved education throughout Somalia.



Donkeys transporting RUTF from Nega Bobas Health Center to Bidibora HP

Shevanjizaw Motuma, Fedis Woreda, 2013

Enlisting donkeys to improve nutrition support in rural Ethiopia

Abduljebar Osman Abdulahi and Selamawit Yilma



Abduljebar Osman Abdulahi is the Project Nutrition Coordinator for International Medical Corps in Oromia region East Hararghe zone. For the past 11 years he has worked in the humanitarian field with both government and NGOs.



Selamawit Yilma is the Communication and Documentation Officer for International Medical Corps Ethiopia. She has worked for the past 14 years with INGOs, academia, media and a private organization.

East Hararghe Zone in Ethiopia is characterised by chronic food insecurity with regular droughts and internal displacement due to tribal conflicts resulting in high malnutrition rates. Children and pregnant and lactating women are the most vulnerable in this area to malnutrition and related health problems.

According to the most recent Emergency Nutrition Coordinating Unit (ENCU) classification, all the International Medical Corps' (IMC) intervention woredas in East Hararghe zone are 'priority one hotspot' woredas. To address the underlying causes of ill health and malnutrition in these areas, IMC currently implements five active emergency nutrition, Water Sanitation and Hygiene (WASH) and Reproductive Health (RH) projects in seven drought

and conflict prone woredas (Gursum, Midega-Tola, Gola-Oda, Chinaksen, Fedis, Meyu-Muluke and Kumbi).

The situation in East Hararghe is aggravated by a lack of infrastructure and limited access to telecommunication. In some woredas the poor roads hinder the transport of medical, nutritional, and other supplies from the Health Centers (HCs) to the Health Posts (HPs). As a consequence, those needing treatment are unable to benefit from the Community Management of Acute Malnutrition (CMAM) programme¹.

IMC Ethiopia has been supporting the Ministry of Health (MoH) logistically with transport of commodities and technically with classroom and on the job training as well as supportive supervision to implement CMAM (OTP, TSFP and SC components) since 2005.

The health officers in the above mentioned woredas repeatedly report that lack of access to supplies is a major barrier to the provision of CMAM services. Out of 174 HPs, 28 report challenges regarding the interruption of services mostly during the rainy season and are affected by either irregular or no supplies for the treatment of malnutrition. This reduces the coverage rate which is estimated to be 16.1%².

To address this issue, the Zonal health department's Nutrition Manager suggested using donkeys to transport OTP material and other health supplies from HCs to the HPs. In Gursum woreda, the use of donkeys to transport health supplies was piloted (despite resistance from some Zonal health department staffs who preferred to procure motor bikes instead). Based on the effectiveness of the approach, IMC decided to pilot the project in its target areas.

IMC provided donkeys and carts to twelve HCs across seven woredas in East Hararghe from June 2013 to January 2014. Donkey carts were bought at an average price of 2,200 Birr (115 USD), and used to transport vaccines, kerosene, RUTF, medication and water from identified HCs to HPs. The donkey carts are used three days a week to transport supplies; during the remaining days they transport items for the community to generate income that the HCs use to buy food and maintain the donkeys. One specific person in each HC is responsible for feeding, vaccinating and providing care for the donkeys with an average cost of 400 Birr (20 USD) per month. The woreda health office covers these costs.

In collaboration with zonal and woreda level government, IMC has been monitoring the donkey transport pilot project regularly to identify impact (if any) on the nutritional activities. Programme performance results from HPs in a

woreda (Fedis) where donkeys were used for RUTF transportation was compared to performance data from HPs where there was no donkey initiative (Kombelcha woreda). Three HPs in each woreda were randomly selected and the number of stocks outs and numbers of defaulters during a period of four months (September to December 2013) were documented and compared. The below table indicates how many RUTF stock outs were reported from the HPs and the rate of default of children enrolled in OTP services.

Monitoring data shows that HPs in Fedis woreda had far less out-of-stock reports of RUTF than HPs in Kombelcha. Furthermore, while only three people defaulted from the OTP services in Fedis HPs, 14 people defaulted in Kombelcha during the same period.

IMC will continue to monitor the impact of the project and will document in detail the challenges and lessons learnt as part of its end-term assessment and review. However the preliminary data presented above indicate that the donkeys in intervention areas are contributing to an improvement in access to medical and RUTF supplies and potentially to reducing the levels of default.

As a result of the positive contribution of these donkeys, Fedis woreda HC has made a commitment to keep the donkey's and continue to provide for them based on community contributions for their services. The Fedis woreda health office head acknowledged the contribution of the donkeys at the midterm review meeting held on May 19th, 2013.

"I was the one who opposed strongly the idea during the orientation workshop but am now advocating for the extension of this pilot project. Our OTP service can continue without interruption thanks to the donkeys".

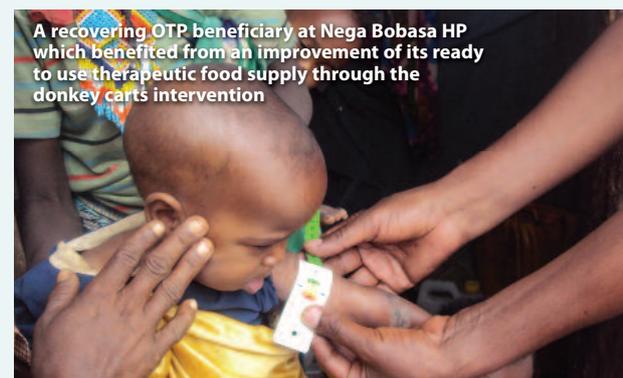
The Zonal health department has also been advocating for this practice to be extended to other woredas at the Zonal Emergency Nutrition Coordination Meeting (ENCU). The deputy head of Zonal health officer gave strong directions to other partners, NGOs and implementing partners to consider similar interventions in the future.

For more information, please contact Selamawit Yilma (syilma@internationalmedicalcorp.org) or Emebet Diasso (edlasso@internationalmedicalcorp.org).

¹ CMAM includes outpatient therapeutic care (OTP), stabilization centre services (SC), targeted and blanket supplementary feeding programmes (TSFP and BSFP).

² Programme data

Woreda	HP	Sep		Oct		Nov		Dec	
		Report zero RUTF	# of de-faulters	Re-port zero RUTF	# of de-faulters	Re-port zero RUTF	# of de-faulters	Re-port zero RUTF	# of de-faulters
Fedis (used donkey carts)	Nega Bobas		0		0		1		0
	Kuf Bobas		0		1		0		0
	Bidibora		1		0		0		0
			1		1		1		
Kombelcha (no donkey carts)	Legehama		0	✓	1	✓	2		2
	Wedesa	✓	1		0	✓	1	✓	3
	Sercema	✓	0	✓	0	✓	2	✓	2
			1		1		5		7



A recovering OTP beneficiary at Nega Bobasa HP which benefited from an improvement of its ready to use therapeutic food supply through the donkey carts intervention

Almaz Iasisa, Ethiopia, 2013

Participatory food preservation sessions in Garbia, Sudan



Nutrition Impact and Positive Practice Circles

Vimbai Chishanu et al., GOAL

Field Exchange 47, p43

The Nutrition Impact and Positive Practice (NIPP) circle methodology is a community nutrition approach that aims to address problems of undernutrition sustainably by supporting communities to help themselves, using locally available resources and low-cost technologies. NIPP circles are used in community contexts where a lack of dietary diversity and inappropriate social, care, health or environmental health practices have been identified as contributory factors in causing undernutrition.

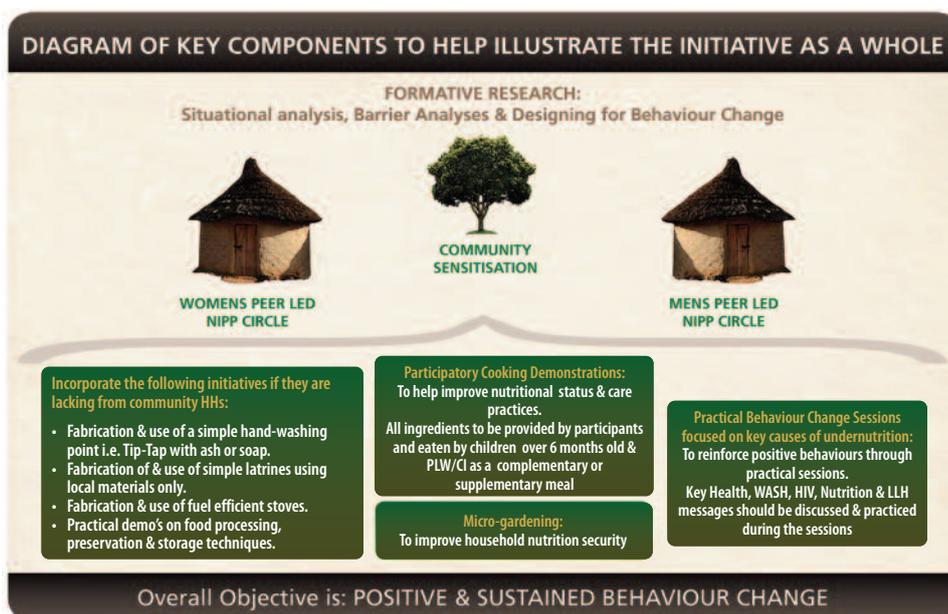
How NIPP circles work

NIPP circles are separate gatherings of males and females within a community to allow for men and women to freely express themselves and to focus on gender specific barriers and motivators for change. The circles aim to

facilitate knowledge and skills sharing of both men and women using group discussions, practical exercises and positive reinforcement to help families adopt sustainable, positive behaviours. There are three main areas of focus: (a) Behaviour Change Communication and Counselling, for improved awareness and practice (b) Micro-gardening, for improved nutrition security and (c) Cooking demonstrations, for improved feeding and care practices. This allows the project to address some of the underlying causes of undernutrition.

Over a period of up to 12 weeks, the members meet on a regular basis for two to three hours at a time, to discuss and learn about recommended practices and access peer support. NIPP circles are led by trained community volunteers (male and female) who are positive role models

Figure 1: Diagram of key components of the NIPP circles approach



in the community and whose households have a comparatively better nutritional status than the others.

There are a number of high-risk individuals who are prioritized or the NIPP circles¹ including:

- children discharged from outpatient treatment for severe acute malnutrition (SAM)
- children with moderate acute malnutrition (MAM)
- malnourished/at risk infants < 6 months of age
- malnourished pregnant or lactating women, and
- families with chronic illness.

Malnourished children may be admitted based on low Mid-Upper Arm Circumference (MUAC), weight-for-height or weight-for-age criteria, to encourage inclusivity (e.g. referral from growth monitoring clinics).

The Ministries of Health and Agriculture, in addition to the GOAL staff in-country, provide technical trainings to staff and volunteers, including MUAC screening, counselling and behaviour change techniques, construction and use of micro-gardens, construction and use of fuel efficient stoves, participatory cooking demonstrations, food preservation, processing and storage, tippy-taps² (or alternative) and latrine construction. They also assist with monitoring and support to households to implement behaviour change and assist with data collection where workload permits.

Health centres are linked directly with the NIPP circles, with participants referred to health facilities for available services (treatment of illnesses, ante-natal and postnatal care, expanded programme on immunisation, and growth monitoring where appropriate etc). Outpatient therapeutic programme discharges are also referred to NIPP circles after treatment.

Programme rollout

In collaboration with governments and local community based national NGOs, GOAL is rolling out the NIPP circles in South Sudan, Sudan and Zimbabwe. To date 50, 125 and 25 NIPP macro circles have been rolled out respectively.

Programme monitoring

A realistic, simple monitoring system has been designed to enable GOAL to monitor various outcomes, including anthropometric status of young children and pregnant and lactating women, care and feeding practices, micro-gardening, food use, hygiene-sanitation practices and HIV prevention awareness. Data are collected at baseline, upon graduation for all admissions, then two months, six months and 12 months post-graduation, which will help to provide a picture of the sustainability of different elements of the project.

Project costs

Based on costings from the Zimbabwe programme, a conservative calculation of the cost per beneficiary (the core direct beneficiaries) is ~£67/person per annum.

Outcomes and learning

There have been many positive outcomes from the multi-country NIPP circle project, such as:

- In one location in South Sudan, the circle members set up their own small village savings and loans scheme independently of GOAL. The savings were used to buy subsequent cycles of seeds where harvesting proved difficult.
- In another site in South Sudan, one of the male circles

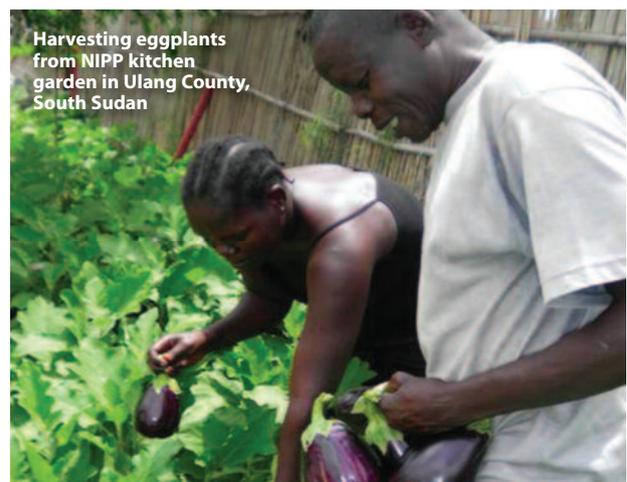
requested that they be tasked with the practical construction and maintenance of the micro-gardens instead of their wives, as part of role-sharing between themselves and their spouses.

- The significant role grandmother's play in family nutrition has been re-affirmed in initial contexts and they are now explicitly invited to join the female circles, particularly when IYCF practices are being discussed.

Programme challenges

The main challenges include:

- Poor male participation in the circle activities, although this is being addressed in different ways in different sites, depending on the barriers identified.
- Volunteer participation (in South Sudan) as GOAL does not provide incentives to participate in the programme, which has required repeat community discussions and buy-in, motivating communities to want to help themselves.
- Shortage of water in dry areas. Maximising yields during rain fed seasons is promoted with subsequent processing, preservation and storage being used to improve access to harvested produce during the lean seasons. Additionally the use of household wastewater to water reduced sized micro-gardens during dry spells is promoted.



Harvesting eggplants from NIPP kitchen garden in Ulang County, South Sudan

GOAL has also experienced problems in a number of field sites, whereby poor coordination between partner NGOs has resulted in the promotion of non-NIPP projects using different forms of volunteer incentivisation (either financial, food or non-food items), leading to difficulties in compliance for the NIPP project that works through volunteerism.

Conclusions

For all implementing GOAL support teams, it has been particularly interesting to facilitate a project that seeks to address undernutrition through an integrated and multi-sectoral community-based approach, using close coordination between sectors. Additionally, the positive feedback and uptake so far suggest there is great potential for local partners, national NGOs and the Ministry of Health to run the project longer term at minimal cost.

¹ For details on admission and discharge criteria see original article in FEX 47 www.enonline.net/fieldexchange

² Tippy-taps are an easily constructed, small-scale hand washing points for households, using locally available and accessible materials.

³ A macro circles is comprised of a female circle a parallel male circle and the community circle



Update on IYCF progress in Balochistan, Pakistan

Muhammad Sheraz and Dr. Ali Nasir Bugti



Muhammad Sheraz is the Nutrition Information Management Officer for the Department of Health within the Government of Balochistan.



Dr. Ali Nasir Bugti is the Provincial Coordinator for Nutrition for the Department of Health within the Government of Balochistan.

Balochistan has one of the highest levels of undernutrition in Pakistan and its nutrition crisis reflects the accumulation of poor feeding practices, low rates of exclusive breastfeeding and other factors such as poor health, food insecurity and poverty. According to the National Nutrition Survey IYCF indicators in Balochistan are generally poor, exclusive breastfeeding (0-6 Months) is 27%, age appropriate breastfeeding (0-23 Months) is 54% and minimum acceptable dietary diversity (6-23 Months) is only 2.1%. Early initiation of breastfeeding is better at 64%.

The Government's Nutrition Cell in Balochistan has been working vigorously with support from different nutrition development partners to address the poor IYCF indicators. In 2013, the Nutrition Cell, in collaboration with UNICEF & HELP (Health, Education & Literacy program a national NGO), implemented two different projects aimed

at lobbying policy makers for strengthened IYCF trainings and approval and effective implementation of the "Code of Marketing of Breast Milk Substitutes" at the provincial level.

These efforts have paid off as, in January 2014, the Balochistan Assembly passed the 'Balochistan Protection of Breastfeeding and Child Nutrition Act-2013'. This act makes illegal the propagation of any material by a manufacturer or distributor that encourages bottle-feeding or discourages breastfeeding, punishable with imprisonment for up to two years and a fine ranging from USD 500 to USD 5000. The act forbids the presentation of a gift or any other benefit to a health worker or medical practitioner liable to the same penalties. The act also prohibits the assertion that any designated product is a substitute, equivalent or superior to mother's milk by any person. At the same time, it makes it obligatory for manufacturers of a designated product to publish on its container a conspicuous notice in bold characters that "Mother's milk is best for your baby and helps in preventing diarrhoea and other illness."

The Government of Balochistan will now identify an infant feeding board consisting of members from Provincial Assembly, Health Department and civil society, including renowned pediatricians and gynecologists. The new board will be responsible for ensuring the implementation of the rules and regulations of the passed bill. With proper support and implementation of this law, there is great hope for an improvement of IYCF practices in Balochistan.

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Isaack/HKI, Tanzania/Sengerema, 2012



Learning by doing: male participation is key to the nutritional wellbeing of the family

Feasting on vegetables in a non-vegetarian community: experiences from Tanzania

Isaack Kitururu, Victor Kamagenge and Dr. Christina Nyhus Dhillon

Isaack Kitururu is working for Helen Keller and has over 5 years experience in designing and implementing social marketing and behaviour change programmes on maternal and child health, nutrition, HIV/ AIDS and sanitation and hygiene.

Victor Kamagenge worked for Helen Keller International as Project Coordinator for the Enhanced Homestead Food Production Project (EHFP). He has over 18 years implementing development programmes.

Dr. Christina Nyhus Dhillon has over 15 years in international development living and working in Africa, Asia, Latin America and Europe. She is currently HKI Tanzania's Deputy Country Director.

"I did not know that it was possible to have an event which gathers over 300 people and let them eat without having beef, chicken or fish! Now I know, and believe, that it is possible to have an event with only vegetables to serve, if they are well prepared." (Alex Ramadhan, Community Development Officer, Sengerema District)

Cooking and consuming vegetables is not a common practice for most households in the Lake Zone of Tanzania. Households that do cook vegetables typically overcook them, destroying the taste, appearance and many essential micronutrients (such as vitamins A, Bs and C). This often deters family members, especially children, from eating these micronutrient-packed foods. Realizing this, Helen Keller International's Enhanced Homestead Food Production (EHFP) project, initiated community events where programme beneficiaries have a chance to learn techniques and gain skills and support for vegetable cultivation and preparation that best preserves and maintains nutritional value, colour and flavor.

EHFP is a three year (2011–2014) agriculture-nutrition project being implemented in 12 villages in two districts of the Tanzanian Lake Zone and directly reaches 1,200 households with child under the age of two years. The project aims to improve maternal and child health and nutritional status through increased access and consumption of micronutrient-rich foods (including indigenous vegetables) and promotion of optimal practices in maternal nutrition and infant and young child feeding (IYCF) following the application of the Essential Nutrition Actions (ENA) framework.

Working with and through local government structures, the project has provided nearly all target beneficiaries with agricultural inputs and horticulture trainings. This exposure to agronomy practices coupled with regular support from government agricultural extension officers has not only increased overall vegetable production, but has also improved beneficiaries' understanding of the benefits of consuming vegetables. This is evident from the mid-term evaluation where 93% of participants agreed (32% 'strongly agreed') that as *vegetables provide essential*

nutrients for healthy eyes and protects against diseases, they should be part of every meal, for children in particular.

Appropriate vegetable preparation; however, remained a challenge to many. From April 2012 to February 2013, reports from community educators conducting outreach visits consistently showed over 75% of the beneficiaries reached had very limited skills on appropriate vegetable preparation. To address the knowledge and skills gap, in June 2012, EHFP added a behaviour change communication (BCC) activity to the project. Three events were organised of which two focused on basic vegetable preparation principles¹ and gave participants the chance to practice new techniques in small groups under the guidance of the EHFP team. Participants brought fresh vegetables² (from their new home gardens) and the project supplied rice, cooking oil, salt and maize flour.

In one of these events, more than 150 project beneficiaries (about 25% men, representing their spouses) and a total of 300 community members came from six participating villages. After the event, one-on-one and small group informal discussions were held by the project team and feedback from participants was overwhelmingly positive.

One beneficiary said

"we are growing varieties of vegetable but we were not using them, now we are going to start following these principles at our homes."

One participant said,

"Now I can confidently help my spouse to prepare vegetable and will make sure that every meal we have has at least one variety of vegetable. Also with these notes I have recorded, I will easily assist her whenever she forgets the recipe and make sure that our family consumes well-prepared vegetables."

¹ including shortened cooking time for the desired tenderness, use of appropriate and easily available ingredients, the use of sharp knives (to cut vegetables cleanly instead of bruising them), and the addition of lime juice to improve the micronutrient absorption of home grown vegetables
² such as Ethiopian mustard (loshuu), soya beans (soya), cowpeas (kunde), amaranth leaves (mchicha), carrots (karoti), orange-fleshed sweet potatoes (viazi lishe) and nightshade (mnavu)

The intention of sharing the gained knowledge and skills was evident as participants, mostly men, used notebooks to write down the procedures and recipes.

Apart from this event, other BCC approaches that have been used include inter-personal counseling sessions conducted by trained community counselors through home visits and small group discussion. The behaviours addressed include low consumption of vegetables due to prevailing perceptions (e.g. vegetables are for poor people who cannot afford fish), exclusive breastfeeding and breastfeeding within one hour of birth, consistency of early food during complementary feeding and observing routine chicken vaccination.

The project has over 70 volunteers who provide nutrition-related counseling to beneficiaries and are technically supported by trained health facility workers and district nutrition focal persons who are all government employees, as well as the project staff. Field visits allow the project team to provide supportive supervision to the grassroots implementers (agriculture extension officers and community counsellors).

Through these visits, the team is able to routinely gauge the extent to which beneficiaries practice the knowledge and skills acquired. The team has observed improvements at household level in the availability of and demand for vegetables as well as appropriate preparation techniques.

The mid-term report indicates that nearly half of beneficiaries consumed vegetables from the home gardens. However, project learning has shown that a greater availability of vegetables in the community does not translate directly into increased consumption. Food preparers (such as mothers, fathers, older children, grandmothers) need proper orientation on cooking with vegetables to ensure that not only vegetables are consumed and enjoyed, but that their micronutrient value is retained to the best extent possible.

Improving maternal and child nutrition presents multiple challenges and barriers. Improving the consumption of locally-grown, micronutrient-rich vegetables is a starting point for sustainable long term reduction of micronutrient malnutrition in these vulnerable populations.

Original article



Women’s gardening in The Gambia

Olawale F. Olaniyan



Olawale F. Olaniyan is a (volunteer) researcher with the International Trypanotolerance Centre and has over seven years of experience in agricultural research for development.

Background

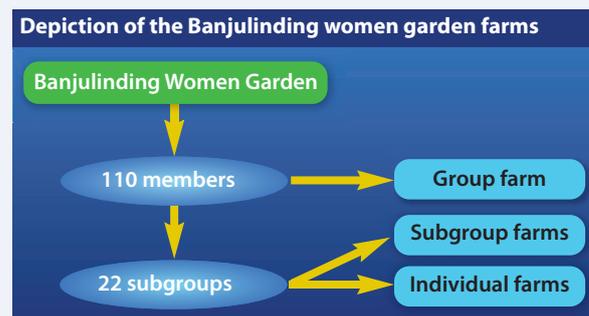
The community farming association, which eventually transformed to Banjulinding Women’s Garden, started in 1989 with one hectare piece of land and an association of 80 members who collectively cultivated either maize or millet during the three to four month cropping season. In 1996, with external support, including technical advice and fencing of an eight-hectare land area, the association was facilitated to plant watermelon and peanuts. A year later, support was provided for additional seedlings, fertilizers and watering cans, storage space and offices, resulting in a wider variety of vegetables planted (including tomato, peppers and egg plants as well as leguminous crops such as peanuts) and an increased production of 120.8 metric tons of produce. The women’s families consumed the produce and extra were sold in the surrounding vegetable markets.

Over a period of more than 15 years, the garden and the association has grown. There are now 110 women organized into 22 subgroups of five women each. Each subgroup jointly cultivates crops such as groundnut, pepper, tomato, green beans, okra, eggplant, cucumber, and sweet potato on three different plots, each measuring 40m x 30m. Each member is also entitled to a personal

plot. The association’s farm, now measuring 23 hectares in total, can yield up to 2,000kg of maize and 1,000 kg of groundnuts. To diversify the nutritional base and sources of income, the association invested in cattle and rabbits. Milk is collected and sold on a daily basis to the members as an important source of animal protein.

Achievements:

- **Increased food production.** Average annual tomato yield from a subgroup’s plot is 4,000 kg in addition to the 10kg/week that is shared by five women for home consumption. From 2005 to 2013, the association increased crop yield by 50%.



- **Improved food security and income.** An irrigation system allows for year-round farming which has increased member's availability and access to a variety of produce and a source of income even during the annual hungry season (June to August). Income generated through the sale of farm produce has supported a more diverse diet, the payment of school fees and other family needs.
- **Flexible, baby-friendly employment.** Farming activities are flexible and women and their child care needs are met through group support. Pregnant women in the last trimester and nursing mothers are relieved of any farming activity by the other group members. A section of the garden is demarcated for infants where they are taken care of by adult family members. Additionally, all women benefit from a three-hour break each day allowing them to be directly involved in food preparation and feeding their families.

Moving forward

Although there have been breaks with the association's long-term donor, the group has been sustained based on savings and the effective coordination and corporation of its members. However, three key challenges remain: 1) fluctuations in market prices (particularly in the rainy season), 2) lack of storage facilities and 3) poor fencing structures. While these currently limit the Banjulinding Women's Garden, renovations are planned and, once realized, will ensure greater storage and an expansion in processing in the near future.

Conclusion:

The Banjulinding Women Garden is an example of how a committed group of women can be empowered and organized to contribute to their family's food and nutrition security and the wider agricultural system.



Sheder Camp,
Refugee Cash
Beneficiary
October 2013

Cash transfers for Somali refugees: experiences from a pilot programme in Ethiopia

Samuel Tadesse

Samuel is working as a Nutrition and Food Security Consultant with UNHCR Ethiopia. He has more than 15 years experience in humanitarian response programs, including nutrition, food security and livelihoods.

Ethiopia is home to more than 400,000 refugees from neighboring countries, displaced by manmade and natural disasters that have forced people to flee their homes and seek humanitarian assistance. The United Nations High Commissioner for Refugees (UNHCR) in collaboration with the Ethiopian Government's Administration for Refugees and Returnees Affairs (ARRA), are coordinating humanitarian assistance to ensure protection and assistance for the refugees. The refugee population is primarily dependent on the general food ration provided monthly by the United Nations World Food Programme (WFP) and administered by ARRA. The in-kind food assistance, comprised of wheat grain, rice, blended food, vegetable oil, pulses, sugar and salt, is provided to meet the daily 2,100 Kcal energy needs and essential/basic micronutrient requirements.

The October 2012 Joint Assessment Mission (JAM) by WFP, UNHCR and partners revealed that refugees are selling and bartering the in-kind food in exchange for access to

preferred foods and other unmet needs. This has negatively impacted the dietary diversity of the food consumed. In addition, the food is often sold on poor terms of trade compared to local market prices for similar commodities. The most sold food commodity is wheat. Market information collected on a regular basis reveals that refugees in most camps are selling 50 kg bags of wheat for an average of 200 Ethiopian Burr (ETB) (approximately \$10.68 USD) and 1 kg of wheat for 4 ETB (\$0.21 USD). Meanwhile the costs for WFP to purchase and transport equal amounts to the site is around 600 ETB (\$31.90 USD) for a 50 kg bag and 12 ETB (\$0.64 USD) for 1 kg. As a result of these findings, the JAM recommended alternate means of food assistance, including cash or vouchers.

Following WFP's shift from food aid to food assistance and the global WFP-UNHCR cash and voucher action plan, WFP and UNHCR in Ethiopia drafted a Joint Action Plan for a cash and voucher pilot program in Ethiopia in mid-2012. This plan was also discussed with the ARRA whereby all

parties agreed on the objectives and way forward. The three organisations conducted several sector assessments which included: market viability and access; security; financial transaction systems; support and social cohesion among refugees and host community; government policy. In addition, in-depth market and vendor assessments and beneficiary consultations with various groups in possible pilot sites (Somali camps in the East and Eritrean camps in the North) were conducted.

Findings from these studies showed that camps in the eastern part of the country have functional markets and that traders are able to respond to the anticipated increase in demand. Consultations with the refugee communities indicated interest towards combining cash with the in-kind food in order to gain access to greater variety of foods in the market. Simultaneously, WFP received a EUR 1 million contribution from a donor for a pilot project to enable refugees to meet minimum levels of food security. Specific objectives for this funding included: to meet beneficiaries' food preferences, provide flexibility and choice of food items for refugees, improve dietary diversity and mitigate the unintended effects of food transfers (reducing the sale of food rations).

A cash transfer pilot project was designed. Two camps were selected: Sheder (12,500 Somali refugees) and Aw-barre (13,500 Somali refugees). In addition to demonstrating market suitability and beneficiary interest, the selected camps were medium-sized and there were no expected major influxes in 2013. The partners agreed to start with a cautious approach replacing 6 kg of the wheat (about 50%) from the monthly general food ration with 100 Ethiopian Birr (USD \$5.30) per month. This decision was taken based on focus group discussion with the community and was reaffirmed by ration spending patterns and post-distribution monitoring data. It was felt that this amount of cash would enable beneficiaries to purchase a similar amount of preferred cereals in order to maintain the minimum requirement of food security (2,100 Kcal/day/person). It was acknowledged that each household would make the final decision on what to purchase to support their respective families. As is the case with food in-kind, women hold the household ration card and are the primary recipient of assistance for their families. Cash worked the same way, as WFP/UNHCR/ARRA used the same list of recipients for the cash portion of the distribution. Therefore, except in families without adult females, women were the primary target and recipient of the cash. Other in-kind food commodities remained in the basket as indicated in table 1.

The pilot was initiated in phases; first starting in Sheder in July 2013 and expanding to Aw-barre in October 2013.

The project gave considerable emphasis on community participation at each stage ensuring the refugees were involved in decision making, for example in choosing which part of the food basket was to be replaced by cash. Refugee communities effectively led the pre-distribution information dissemination and were closely involved in reporting of cash related incidences, crowd control during distribution, prioritisation of vulnerable groups, and maintaining the peace and security in their village. Many of the refugee committee members are men, and sensitisation on effective messaging was conducted to ensure that women were comfortable and included in the discussions.

Apart from regular monitoring (including monthly food/cash distribution monitoring and post-distribution monitoring),

an in-depth study was conducted in Sheder Camp during October 2013, three months after the project began, to further assess the appropriateness, effectiveness, cost-efficiency, protection issues and nutritional impact of the programme. The study consisted of assessments of individual households (including diet diversity and food frequency questionnaires), focus group discussions with women and men and key informant interviews (mainly vendors and staffs of UNHCR, WFP and ARRA).

With regards to nutritional impact, overall Food Consumption Scores (FCS) were calculated in the post-distribution survey (October 2013) and compared to the scores at baseline (August 2012). The results indicated a positive improvement in FCS (Table 2) suggesting that refugees were able to purchase a wider variety of foods including fresh fruits and vegetables, animal protein sources such as meat and milk and more preferred cereals. Beneficiaries reported that they were highly satisfied with the substitution of cash for some of the wheat in the ration as the cash provided them with flexibility and enabled households to diversify their diets (Table 3). Focus group discussions revealed that the additional cash has enhanced dignity and strengthened the negotiation power of refugees with the traders.

The outcome of the programme will be further reviewed after the joint nutritional surveys, which will be conducted in May 2014, to see the nutritional impact in comparison to the baseline data. Informal feedback suggests that cash is very well liked; many beneficiaries have requested that the entire cereal portion of basket be replaced by cash.

Table 1: Lists of food basket and cash

In-kind food basket before introduction of cash	Food and cash combined
Wheat grain 11.4 kg	Wheat 5.4 kg
Rice 4 kg	Rice 4 kg
Pulses 1.5 kg	Pulses 1.5 kg
Fortified Corn Soya Blend (CSB+) 1.5 kg	Fortified Corn Soya Blend (CSB+) 1.5 kg
Vegetable oil 0.9 kg	Vegetable oil 0.9 kg
Sugar 450 g	Sugar 450 g
Salt 150g	Salt 150g
	ETB 100 (USD \$5.30)

Table 2: Change in Food Consumption Score between 2012 and 2013 (Sheder camp)

Food Consumption Score Rating Scale	Baseline survey August 2012	Post-Distribution Survey October 2013	% Change between 2012 and 2013
Poor	18	8	-55%
Borderline	35	17	-52%
Adequate	47	75	+60%

Table 3: Types of food purchased by cash from local market

Types of food	Percentage
Milk (cheese and yogurt)	22
Vegetables (and fruits)	16
Sugar	14
Pasta and macaroni	13
Wheat flour	9
Meat and eggs	6
Loan repayment for borrowed food	16
Other foods (rice, oil etc.)	4
TOTAL	100%

Supporting nutrition and protecting livelihoods

Zenebe Desta



Zenebe is working as the Communication Advisor for at Save the Children Ethiopia. He has experience as reporting, editing and communications experience.

Background

The USAID/Food by Prescription (FBP) programme is implemented in seven regions in Ethiopia¹. The programme's goal is to improve nutrition and clinical and outcomes among HIV+ individuals, pregnant and postpartum women and Orphan and Vulnerable Children (OVC). Its objective is to integrate Nutrition Assessment and Counseling Services (NACS) into health facilities' HIV care and create linkages to Economic Strengthening (ES) initiatives.

All FBP programme beneficiaries are provided with NACS and treatment for moderate or severe acute malnutrition. A key component of the programme, is the ES initiative, which aims to prevent a relapse of acute malnutrition among people of working age by improving their income potential and livelihoods. ES activities encompass Income Generating Activities (IGA), which includes Urban Gardening, Self Help Groups and Community Small Saving Groups.

IGAs were implemented for more than three years from mid-2009. After three years, the programme recognised that beneficiaries ended up using most of the money they earned to pay back debt. They often could not reinvest in their businesses, which led to frequent failure and prevented lasting changes in household economies.

Back-to-Work project

To develop alternative ES opportunities, a one-year Back-to-Work (BTW) pilot project was launched in November 2011 to foster public and private businesses partnerships to create job opportunities and access to employment. The pilot started through a partnership with a local NGO, 'Mums for Mums'. Promising results were achieved after just a few months. For example, Almeda Textile in Adwa provided skills training to 27 beneficiaries and they started producing various goods from the products wasted during the manufacturing process by the factory. Similarly, 50 beneficiaries started supplying food items to the canteen that serves hundreds of employees in the Saba Limestone factory in Adwa. The Poly Institute in Mekele directly employed 11 beneficiaries and gave scholarships for 30 more in its higher education courses.

The pilot project was extended to two of USAID/FBP partners, Akaki Garment in Addis Ababa and Metehara Sugar Factory in Oromia Region. Together, the factories successfully employed and trained 45 BTW beneficiaries. Due to the positive impact of the pilot project, support for the scale up of BTW into five other regions was received at the beginning of 2013 to go through September 2014. A national experience-sharing workshop was organized in February 2013 to ensure that learning from the pilot could help to design the scale-up of activities.

Since the scale-up of the BTW project, approximately 800 beneficiaries (across various regions) have been linked to employment in private enterprises. Roughly 700 others have participated in basic skill trainings and are in the process of being linked with employers.

Phasing out

The external support to BTW ends in September 2014 and thus the focus is now on sustaining the project in the long term. The ES unit of regional government's HIV/AIDS Prevention and Control Offices (HAPCO) has been a leading partner throughout the implementation of the project and will continue to lead the overall activities after the external project funding closes. USAID/FBP is working closely with HAPCO to ensure they have the capacity and tools needed to continue to lead and oversee the implementation of these activities. This includes production of a BTW manual, and referral documents listing ES providers by each town to facilitate joint planning and activities between health facilities and HAPCO. Committees, comprised of relevant government officials from offices supporting HAPCO, have been established in major operational towns to identify opportunities and advocate for support from public and private enterprises.

The project will continue to link clients to employment opportunities through implementing partners until external funding ceases. In the meantime, consultative meetings will be held with all stakeholders to discuss and identify how best services can be provided in the future. Given the strong ownership of the project by national and regional HAPCOs as well as local NGO implementing partners, it is strongly felt that all stakeholders are committed to ensuring effective service delivery after September 2014.

¹ Addis Ababa and Dire Dawa city administrations and Oromia, Harari, Amhara, Tigray and South Nations, Nationalities and Peoples' regional states.

Beneficiaries taking tailoring training in Almeda Textile to develop skill before link to employment, Tigray, North Ethiopia



Kalidan Yemane, Adawa, Ethiopia, 2013

Wild food, prices, diets and development: sustainability and food security in urban Cameroon

Sneyd, Lauren Q.
Sustainability (2013) 5 (11) 4728-4759.



Sneyd, Lauren Q.

This article analyses the ways that wild and traditional foods contribute to the food security of urban households in southern Cameroon based on empirical, qualitative data collected from 371 household and market surveys in Cameroonian cities.

The survey data suggest that many wild/traditional foods are physically available in Cameroonian cities most of the time, including 66 wild fruits, vegetables, spices and insects. The availability of these foods depends on the season, weather and access to the surrounding tropical forest. Cameroonians spend considerable amounts of their food budget (25%) on wild/traditional foods and many believe that these foods are necessary for the preparation of routine household meals.

However, low wages and the high cost of city living are impacting household access to wild/traditional foods. Households are substituting these foods with cheaper, lower quality alternatives such as imported rice. Consequently, traditional diets are changing and urban residents of Cameroon face a transition away from the wild/traditional nutrient rich foods they prefer towards less nutritious foods. The author calls for further research into the effects of this change on food security, nutrition and public health outcomes.

For more information visit <http://www.mdpi.com/2071-1050/5/11/4728>

Squeezed: life in a time of food price volatility, year 1 results

Naomi Hossain et al.
Oxfam International and Institute of Development Studies (IDS)



Squeezed is an account of the cumulative pressures of food price rises on everyday life in developing countries, and how they are changing behaviour, relationships, and social organisation in ways that matter for development. While the 'food crisis' is no longer headline news, it has not gone away. Food prices continue to rise and at times to spike; that this is causing hardship is not in question. *Squeezed* aims to help policy makers think about how to respond to food price volatility by directing attention to the following:

- how people and societies are adapting to food price changes
- what action could usefully be taken now
- what aspects of adaptation need better monitoring
- what needs to be better understood about these complex changes.

Squeezed summarises Year 1 findings from a 10 country four year study, called 'Life in a Time of Food Price Volatility'.

Ultimately *Squeezed* provides reasons to prepare for the next food price spike and provides recommendations for how best to do so, including:

- widening social assistance for the most vulnerable
- being ready with temporary spike-proofing measures
- monitoring the real impacts on people's lives and wellbeing
- rethinking social protection policy
- enabling people to participate in policies to tackle food price volatility.

Separate reports of the research findings for each country in 2012 are available, in addition to a detailed account of the research methodology.

For more information visit Oxfam UK's website: <http://policy-practice.oxfam.org.uk/publications/squeezed-life-in-a-time-of-food-price-volatility-year-1-results-292412>



Tufts University Feinstein International Centre publications

Tufts University Feinstein International Centre has published a two-part review of emergency livestock interventions in Sudan. Livestock production is a crucial livelihood strategy for farmers and pastoralists throughout Sudan, and contributes to a wider economy linked with livestock marketing, livestock products, fodder, water and support services. In Sudan there is a long experience of livestock interventions. This study reviewed recent emergency livestock interventions and the introduction of the Livestock Emergency Guidelines and Standards to Sudan.

Part 1: Merry Fitzpatrick and Helen Young. Livestock, Livelihoods and Disaster Response: Part One A Review of Livestock Based Livelihood Projects in Sudan. 2013.

Part 2: Getachew Gebru, Hanan Yousif, Abdelhafiz Mohamed, Belihu Negesse, and Helen Young. Livestock, Livelihoods and Disaster Response: Part Two Three Case Studies of Livestock Emergency Programmes in Sudan, and Lessons Learned. 2013.

Both publications available on the Feinstein International Center website: <http://fic.tufts.edu/publications/>

Resilience measurement principles - FSIN Technical Series No. 1

There is now wide agreement that the interactions among climate change trends, ecosystem fragility and geo-political instability have produced a new range of risks that are increasingly difficult to predict. Resilience, viewed by many as a way to deal with a range of unpredictable risks that undermine well-being, has recently emerged as a key concept for policy and programme development.

While several papers and policy statements have been released and a wide range of funded initiatives have been launched, there has been limited focus on measurement. To address this, a three-day Expert Consultation on Resilience Measurement for Food Security was held in Rome, Italy (February 19-21, 2013). The meeting, which brought together policy makers, programme staff, researchers, and leaders from various agencies and organizations, provided an opportunity to share initial findings and raise questions about resilience measurement. One of the main outcomes of the meeting was the formation of a Technical Working Group to lead the

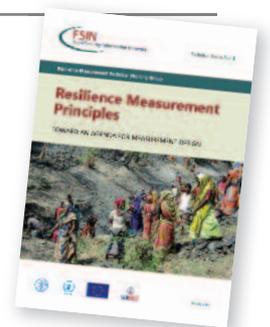
development of a common analytical framework and technical guidelines for resilience measurement.

A technical paper has been produced as an initial step toward the development of resilience measurement design for use by stakeholders (e.g. programme staff, monitoring and evaluation, policy makers). It outlines:

- A definition of resilience
- A series of measurement design principles
- General technical guidelines for Resilience Measurement commonly used to promote rigor in all measurement approaches
- A set of substantive issues and analytical concerns

This FSIN Technical Series No.1 is the first of three papers that will be issued over the course of the next year.

For more information visit the Food Security Cluster website: <http://foodsecuritycluster.net/document/fsin-paper-series-no1-resilience-measurement-principles>



Second International Conference on Nutrition (ICN2): background papers

A series of background papers have been written in preparation for the ICN2 to be held 19-21 November 2014 (see events section for more details). Below is a partial list of papers, for a full list of papers and the full text see <http://www.fao.org/food/nutritional-policies-strategies/icn2/expert-papers/en/>

Vitamin A: Moving the food-based approach forward by Ted Greiner, Hanyang University

Designing Nutrition-Sensitive Agriculture Programs by Ladd, ACIDI/VOCA – Food Security

Improving nutrition through secondary livestock products of milk and eggs: A pastoralist case study in Kenya by Lora L. Iannotti and Carolyn Lesorogol

Monitoring and Evaluating the Food Security and Nutrition Effects of Agricultural Projects by F. James Levinson, Tufts University and Anna Herforth, Cornell University

Impact Pathways from Agricultural Research to Improved Nutrition and Health: Literature Analysis and Research Priorities by Patrick Webb

Linking Agricultural Production Practices to Improving Human Nutrition and Health by Ross M. Welch, Robin D. Graham, and Ismail Cakmak Sabanci

Nutrition of adolescent girls in low- and middle-income countries

David I. Thurnham, *Sight and Life*, Volume 27 (3) 2013.
Available at www.sightandlife.org



Adolescence during the teenage years of 13 to 19 is a time of dramatic change. Adolescence is the only time in life besides the critical window of the first 1000 days when the velocity of growth actually increases. For many girls, the opportunity to benefit from this period of potential growth is curtailed by early pregnancy. This article describes the nutritional status and requirements of adolescent women in low- and middle-income countries and highlights some of the problems posed by malnutrition and early marriage.

Key messages

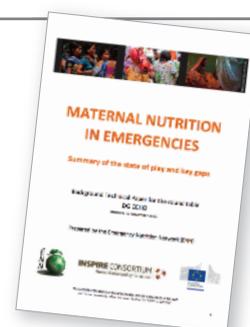
- Many children in low- and middle-income countries enter adolescence thin, stunted and anaemic, and often have other micronutrient deficiencies.
- Adolescence is an opportunity for catch-up growth.
- Many adolescent girls become pregnant before they achieve adult weights and heights.
- Early marriage increases the risks of maternal mortality, complications in pregnancy and impaired fetal

- development (small-for-gestational age) and may prevent any further maternal height gain.
- Early marriage, low education, poor diet and poverty are strongly linked.
- Promoting secondary education for girls may delay early marriage. School feeding with nutritious food attracts adolescent girls into secondary education and helps keep them there.
- Efforts to promote food fortification with micronutrients, in combination with dietary diversity, will help combat malnutrition, may benefit adolescent growth and build a healthier workforce to reduce poverty in the future.

While adolescence is an opportunity for catch-up growth, poor diets and the physical demands of early marriage and pregnancy curtail the opportunities for growth. To address this, education needs to be promoted to increase the age of marriage, micronutrient fortification should be supported to improve dietary quality, and a high quality and diverse diet should be promoted to ensure adequate bone growth.

Maternal nutrition in emergencies: Summary of the state of play and key gaps

Tanya Khara and Emily Mates, *ENN*
Available at www.ennonline.net



Current evidence underlines the importance of the nutritional status of women at the time of conception, during pregnancy and through lactation as a crucial factor in the survival, healthy growth and development of her children. Although it is the subject of less global attention, maternal nutrition is also crucial for women's own ability to live a healthy life.

Concerned that there are a number of gaps at policy and practice levels and limited guidance is available to efficiently and effectively address the needs for maternal nutrition, the European Commission commissioned a review of the literature and existing guidance.

This review summarises the available literature relating to women's vulnerabilities, the implications of these for women and their infants, current international guidance on maternal nutrition and what is currently being done in emergency programming. Key gaps are highlighted.

Current guidance on maternal malnutrition has been limited until recently, with the publication of the World Health Assembly of a 2012 WHO report 'Nutrition of women during

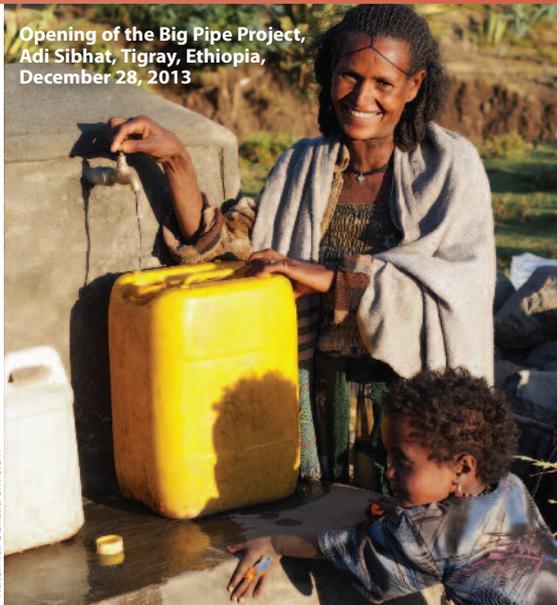
pregnancy' and the publishing of the WHO 2013 Essential Nutrition Actions for improving maternal, newborn, infant and young child health and nutrition. The Scaling Up Nutrition (SUN) Framework includes a number of direct interventions for maternal nutrition, although the emergency context is not specifically addressed. The SPHERE project 2011 gives some guidance, however most are linked to infant feeding and the welfare of the child only.

The review pulls together available guidance on macronutrient supplementation, micronutrient supplementation, care and support, health related interventions, and nutrition sensitive interventions for improving maternal nutrition generally and in emergencies.

Key gaps identified include:

- Knowledge gaps in how to assess and analyse, who to target, and what is the most effective response
- What specific products to use for micronutrient supplementation and for supplementary feeding
- How to monitor effectiveness and evaluate impact of emergency programmes on pregnant and lactating women and their children.

Opening of the Big Pipe Project,
Adi Sibhat, Tigray, Ethiopia,
December 28, 2013



WaterAid/Behailu Shiferaw

Water, sanitation, and hygiene (WASH), environmental enteropathy, nutrition, and early child development: making the links

Francis M. Ngure et. Al.

Annals of the New York Academy of Sciences, Volume 1308, *Every Child's Potential: Integrating Nutrition and Early Childhood Development Interventions* pages 118–128, January 2014

Available online at

<http://onlinelibrary.wiley.com/doi/10.1111/nyas.12330/abstract>

There is scarce research and programmatic evidence on the effect of poor water, sanitation, and hygiene (WASH) conditions on early child cognitive, sensorimotor, and socio-emotional development.

Furthermore, many common WASH interventions are not specifically designed to protect babies in the first three years of life, when gut health and linear growth are established. The authors review evidence linking WASH, anemia, and child growth, and highlight pathways through which WASH may affect early child development, primarily through gut inflammation, stunting, and anemia.

In this paper, the authors argue that poor hygiene, resulting in microbial ingestion, is a risk factor for poor Early Childhood Development (ECD). They propose that the concept of WASH

is broadened and considered an aspect of child nutrition and development interventions, not simply the sum of toilets, caregiver hand washing and water purification. They suggest the concept of 'baby WASH' – the goal being to interrupt the key fecal-oral vectors of babies' hands and hand-to-mouth activity, paying attention to animal feces as well as human feces. Programmatically, baby WASH interventions require baby hand washing at key times and creation of a hygienic and protective play environment, in addition to hygienic infant feeding and household hand washing and sanitation interventions. The authors advocate for baby WASH to be an additional component of ECD programmes. Finally, the authors highlight the need for further multidisciplinary research on the link between WASH and ECD.

The effect of interventions to improve water quality and supply, provide sanitation and promote handwashing with soap on physical growth in children (Cochrane review)

Alan D Dangour et al.

Cochrane Library 2013, Issue 7 Available online <http://www.ncbi.nlm.nih.gov/pubmedhealth/PMH0057931/>

In low-income countries an estimated 165 million children under the age of five years suffer from stunting causing them to be short in height and 52 million children suffer from wasting causing them to be very thin. Poor growth in early life increases the risks of illness and death in childhood. The two immediate causes of childhood undernutrition are inadequate dietary intake and infectious diseases such as diarrhoea. Water, sanitation and hygiene (WASH) interventions are frequently implemented to reduce infectious diseases; this review evaluates the effect that WASH interventions may have on nutrition outcomes in children. The review includes evidence from randomised and non-randomised interventions designed to (i) improve the microbiological quality of drinking water or protect the micro-biological quality of water prior to consumption; (ii) introduce new or improved water supply or improve distribution; (iii) introduce or expand the coverage

and use of facilities designed to improve sanitation; or (iv) promote hand washing with soap after defecation and disposal of child faeces, and prior to preparing and handling food, or a combination of these interventions, in children aged under 18 years.

The authors identified 14 studies of such interventions involving 22,241 children at baseline and nutrition outcome data for 9469 children. Meta-analyses of the evidence from the cluster-randomised trials suggest that WASH interventions confer a small benefit on linear growth in children under five years of age. While potentially important, this conclusion is based on relatively short-term studies, none of which is of high methodological quality, and should therefore be treated with caution. There are several large, robust studies underway in low-income country settings that should provide evidence to inform these findings.



Meeting of Nutrition Technical Working group to finalize Balochistan Inter-Sectoral Nutrition Strategy

Pakistan, Quetta, 2013

Scaling up nutrition: experiences from Balochistan, Pakistan

Muhammad Sheraz and Dr. Ali Nasir Bugti



Muhammad Sheraz is the Nutrition Information Management Officer for the Department of Health within the Government of Balochistan.



Dr. Ali Nasir Bugti is the Provincial Coordinator for Nutrition for the Department of Health within the Government of Balochistan.

Balochistan is the most underdeveloped of four provinces of Pakistan and has a very poor health and nutrition situation. According to the 2011 National Nutrition Survey, the prevalence of stunting in Balochistan is 52.2 %, amongst the highest in the world. The prevalence of wasting is 16.1%, exceeding the WHO-threshold of 15%, indicating a public health emergency. Women and children also suffer from some of the world's highest levels of vitamin and mineral deficiencies with maternal anemia at 47.3% and Vitamin A deficiency in children at 74%. Based on current trends, Balochistan is not on track to achieve the Millennium Development Goal of halving the 1990 level of undernutrition by 2015.

The Government of Balochistan and its partners recognise the implications of such high levels of undernutrition on economic and human development and as a result are now undertaking a multi-sectoral nutrition approach in line with the SUN Movement.

The SUN Framework includes three main components:

- Evidence-based and cost-effective interventions to prevent and treat undernutrition, with highest priority to the minus 9 to 24 month window of opportunity, termed 'the first 1000 days'
- A multi-sectoral approach that includes integrating nutrition in related sectors and using indicators of undernutrition as one of the key measures of overall progress in these sectors

- Substantially scaled up domestic and external assistance, through a coordinated development partner response, for country-owned nutrition programmes and capacities.

Pakistan, and Balochistan in particular, has made significant progress on this since 2010. In September 2011, the Economic Affairs Division of Pakistan took an important step when it called a meeting of development partners and donors currently engaged in and funding different projects in Pakistan (referred to as the D-10 Group) to discuss nutrition. During the meeting, the provinces committed to preparing multi-sectoral nutrition plans. Since then, Balochistan has:

- **Developed a policy guidance document** to assess provincial levels of undernutrition, identify sectoral programmes associated with reducing undernutrition, and to begin identifying possible roles for these sectors in a collective effort to reduce undernutrition in the province. The document also contains the list of benefits likely to accrue to each of the sectors from improved nutrition in the province.
- **Finalised an Inter-Sectoral Nutrition strategy.** This strategy seeks both to prevent and treat undernutrition directly (nutrition-specific interventions) and also addresses the determinants of undernutrition (nutrition-sensitive interventions.) The focus is on hygiene practices, access to safe water, sanitation and health services, household food security, access to a diversified diet, socioeconomic constraints and literacy.

For each sector the strategy includes a set of strategic objectives, outcomes, outputs, and activities with a plan for a coordinating entity to be lodged in the Provincial Department of Planning and Development. The strategy identifies a subset of indicators included in a 'Results Monitoring Framework'. The ongoing monitoring and review of these indicators will provide the Province with a means of assessing progress of the strategy on an ongoing basis. Given the diversity and multi-sectoral causes of undernutrition, a separate unit focusing on planning and monitoring will be created and housed in the Planning and Development Department to maintain accountability for all key levels and observe overall progress. The strategy's underlying approach will be to "plan multi sectorally, implement sectorally and then review multi sectorally". The next stage will be to cost the plan. Currently the Planning and Development Department includes sections such as agriculture and health, but not nutrition. The Health Section is currently looking at nutrition with plans to establish a separate Nutrition Section to plan and monitor overall progress of the inter-sectoral strategy.

- **Identified a Provincial Nutrition Steering Committee**, chaired by the Additional Chief Secretary for Development, the second highest ranking official at the provincial level after the Chief Secretary. The department heads for health, agriculture and other relevant departments are members.
- **Identified an Inter-sectoral Technical Working Group (TWG)** under the Department of Planning and Development. Each sector will have a specific TWG and the Nutrition TWG and Steering Committee are now guiding the transformation of the Inter-Sectoral Nutrition strategy into an operational plan.

Nutrition and other sectors have been asked to prepare and cost their proposals, in line with the nutrition specific and sensitive interventions suggested by the multi-sectoral nutrition strategy for each sector. The steering committee and nutrition TWG aims to identify adequate resources to fund these through either government funds or donor funding. At the time of writing, only the Health Sector has costed their plan for a total of 14.92 million USD (1492 million Pak Rupees) over a three-year period (July 2014 to June 2017), which will target 7 high-risk districts (out of Balochistan's 30 districts in total). Within this, the budget for community-based management of acute malnutrition (CMAM) and Infant and Young Child Feeding (IYCF) combined is 5.42 million USD. The health sector plan aims to:

1. Increase access and availability of IYCF and CMAM services across the targeted districts for targeted populations (male and female children 0-5 years and pregnant and lactating women);
2. Improve consumption of micronutrients through fortification and supplementation;
3. Enhance level of knowledge and increase awareness of nutrition interventions among households who have children less than 5 years of age and pregnant/lactating women;
4. Strengthen the nutrition programme within the health department; and
5. Strengthen Monitoring and Evaluation Systems with the focus on generating information for evidence based planning and implementation.

Multi donor trust funds are available for the various interventions and the Department of Health of Balochistan is ready and prepared to implement once the project proposal is approved at national level.

Expected challenges

The multi-sectoral approach will require a high level of commitment, effective coordination, and informed leadership for its success. Some of the possible challenges facing Balochistan in effective implementation include:

- **Accountability:** The newly formed Nutrition Section within the Planning and Development Department will not have stated authority to hold other departments accountable to delivering on their nutrition related results. How other sectors will be made accountable to the nutrition section is still a big question mark and a key challenge ahead.
- **Priority:** Nutrition is not a common agenda for all sectors and thus the level of understanding and priorities within other sectors may vary.
- **Resources:** There may not be the necessary resources to make the nutrition strategy operational as donor funding for nutrition sensitive plans for other sectors other than health currently does not exist.
- **Capacity:** There is limited capacity within other sectors, particularly with regards to nutrition sensitive programming, that could limit their understanding on what human resource capacity is required to roll out nutrition sensitive interventions.
- **Coordination:** The province has no previous experience in inter-sectoral coordination for thematic programming.

For more information, please contact Muhammad Sheraz: Mohammad.sheraz@live.com



Endorsement ceremony of Balochistan Nutrition Policy Guidance Notes

Pakistan, Quetta, 2013

Maximising the Quality of Scaling Up Nutrition Programmes Framework (MQSUN)

Briefing 02, November 2013

Mejia Acosta, A. et al. Institute of Development Studies, Brighton.



Efforts to strengthen government commitment to reduce undernutrition in Fragile and Conflict Affected States (FCAS) face a number of context specific challenges. First, most nutrition investments tend to adopt short-term humanitarian approaches to tackle food and hunger crises. Secondly, FCAS usually lack the capacity to design and implement their own nutrition strategies, thus reinforcing their dependency on the policy advice, technical training and funding from the donor community. Thirdly, there are very weak or non-existent

accountability linkages between the state and the society in FCAS, so that citizens lack the means to hold their governments to account and political elites lack the incentives to respond to citizens' demands. This briefing reviews three specific situations (Niger, Pakistan and Ethiopia) and offers practical recommendations and policy advice to address nutrition governance challenges in a context of fragility.

Policy recommendations:

- National governments should evaluate existing nutrition initiatives and aim to orchestrate multiple nutrition responses under a single institutional framework or strategy.
- Donors operating in fragile and conflict affected situations should endorse emergency nutrition responses such as CMAM or blanket feeding that have the greatest potential for embedding preventive care. Cash transfers are another instrument that has greater long-term impact.
- Multilateral and bilateral agencies should establish ways to combine and fund long-term nutrition programming through funds that are allocated on a short-term yearly basis with those that could be allocated through multi-year funding. Synchronizing funding cycles could open the door to an effective division of labour and sustained nutrition funding without undermining reporting requirements.
- Donors and country governments need to develop improved budget tracking devices to allow governments greater ownership over nutrition funding while ensuring accountability of donor contributions.

Further research:

- Work is needed to define and measure the capacity and motivation of the state and state actors to engage in effective nutrition programming.
- More work is needed to define and document how investments and strategies for reducing chronic malnutrition can prevent the long-term recurrence of acute malnutrition in FCAS and elsewhere. The impact of treating and preventing acute malnutrition on stunting needs to be documented and the policy and programme implications elaborated.
- Research is needed to understand how specific FCAS and food insecurity indicators affect nutrition indicators.
- Improve nutrition programme design by developing and using budget-tracking devices to identify the relationship between nutrition investment and nutrition outcomes in FCAS.

Mile refugees camp, 2012, Seife Killehobannes



Meeting of Nutrition Technical Working group to finalize Balochistan Inter-Sectoral Nutrition Strategy

Please visit ENN's website www.ennonline.net for more up to date listings.

The ENN website is being updated and the new site will be launched by July 2014.

The new website will provide a continually updated list of news, events, trainings and job openings in the sector.

Note: ENN will no longer be issuing bi-monthly email newsletters. The new ENN website will contain all the news and updates formerly circulated in the newsletters.

ENN International Technical Meeting on Nutrition: October 2014

The ENN will host a three-day meeting in Oxford, UK, from 7th to 9th October 2014. This will be a technical learning and networking meeting on nutrition specific and nutrition sensitive programming in emergencies and high burden contexts to inform better practice, research priorities and advocacy. The meeting will engage a broad audience that includes NGOs, UN agencies, SUN, GNC, academia, bilateral and multilateral donors, the private sector and government representatives. A wide range of existing online and social media and tools will be used to capture and rapidly share meeting experiences, discussions and outcomes.

Specific objectives of the meeting are as follows:

- To give participants the opportunity to present their work, highlight lessons and share experiences from cutting edge/innovative and new areas of research and programming.
- To give participants the opportunity to identify and discuss critical gaps and unanswered questions, in relation to research and programming, with peers from the wider nutrition community and related sectors.
- To provide participants with the space to discuss how to collectively move forward in certain key technical and programmatic areas and to allow current working/steering groups in the sector to convene and allow formation of new groups, as necessary.
- To strengthen donor and academic understanding of operational challenges both within the sector and in cross-sectoral work streams.

For more information see www.ennonline.net



Second International Conference on Nutrition (ICN2): November 2014

The Second International Conference on Nutrition (ICN2), an inter-governmental meeting on nutrition jointly organized by the Food and Agriculture Organization (FAO) and the World Health Organization (WHO), in cooperation with the High Level Task Force on the Global Food Security Crisis (HLTF), IFAD, IFPRI, UNESCO, UNICEF, World Bank, WFP and the WTO, will be held in Rome, 19-21 November 2014.

ICN2 will bring together senior national policymakers from agriculture, health and other relevant ministries and agencies, with leaders of United Nations agencies and other intergovernmental organizations and civil society, including non-governmental organizations, researchers, the private sector and consumers. The conference will review progress made towards improving nutrition since 1992, reflect on nutrition problems that remain, as well as on the new challenges and opportunities for improving nutrition presented by changes in the global economy, in food systems, by advances in science and technology, and identify policy options for improving nutrition.

ICN2 will build on ongoing global political processes and initiatives to contribute to the post-2015 UN development agenda including identifying priority areas, nutrition development goals as well as the policies that are required to achieve, measure and account for them.

For more information see

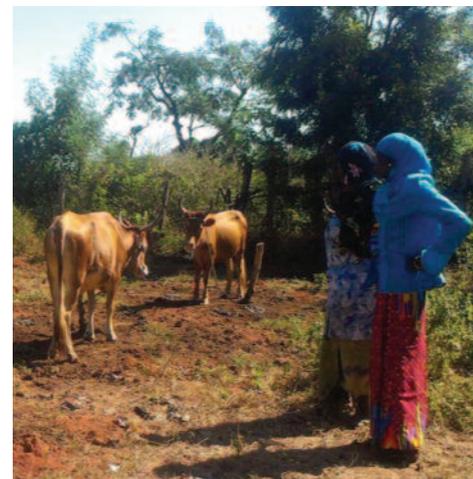
<http://www.fao.org/food/nutritional-policies-strategies/icn2/en/>



School staff distributing food to students after school lessons



Collecting water from the newly built water point



Community event participants preparing amaranth for feasting



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To register for Nutrition Exchange go to
www.ennonline.net