

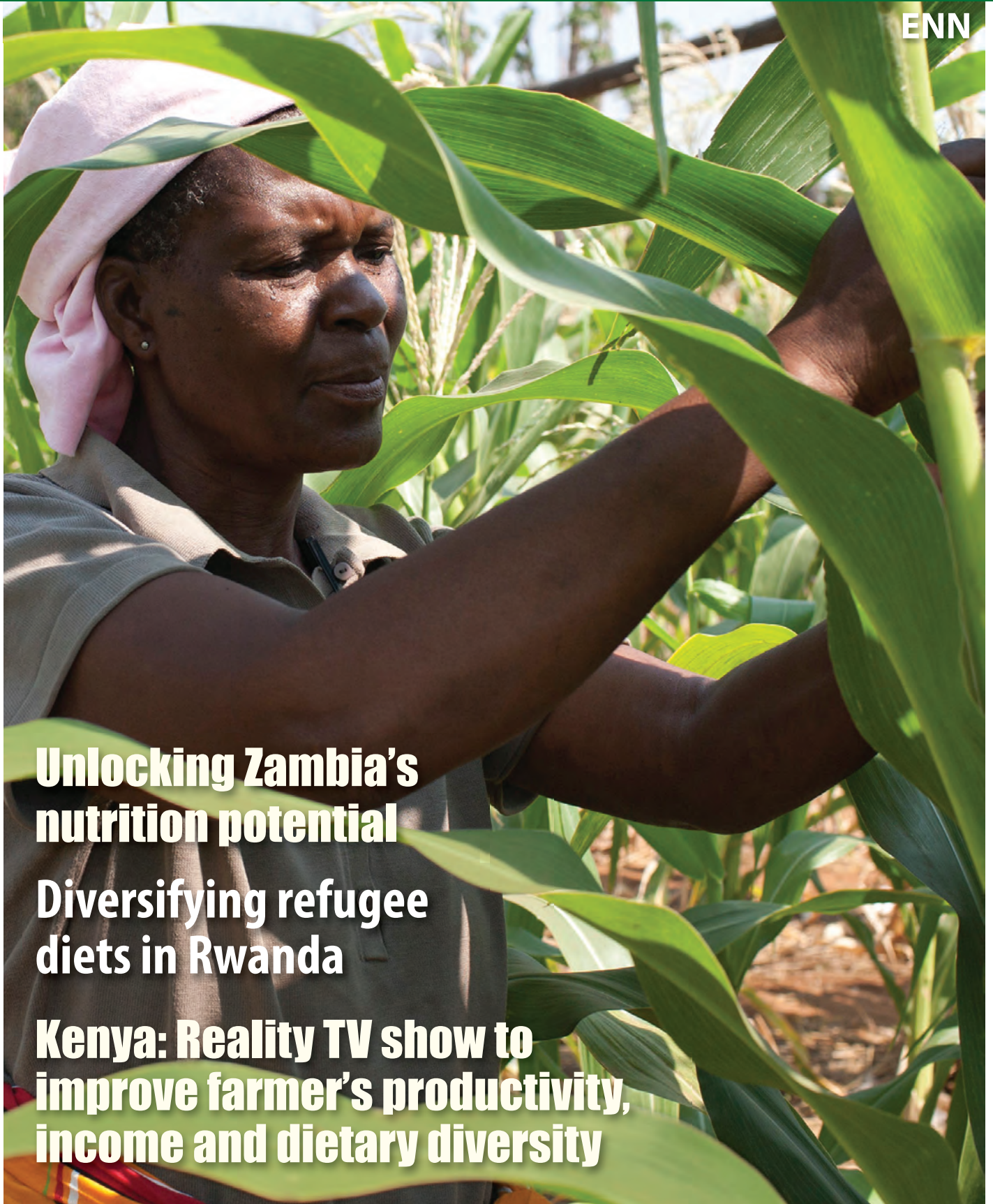
Vulnerability
assessments in Kenya

Integrating food security
and nutrition in Niger

Home grown school
meals in Malawi

NUTRITION EXCHANGE

ENN



**Unlocking Zambia's
nutrition potential**

**Diversifying refugee
diets in Rwanda**

**Kenya: Reality TV show to
improve farmer's productivity,
income and dietary diversity**

Contents

- 3 Editorial**
- 4 Global Nutrition**
 - 4 Global Nutrition Report
 - 5 Power of Nutrition
 - 6 Adolescent Nutrition
- 7 Wasting and stunting**
 - 7 National coverage assessment in Mali
 - 9 Lessons from Namibia's national nutrition programme
 - 11 Distribution systems for nutrition products in Zimbabwe
- 13 Assessment and capacity building**
 - 13 Nutrition Causal Analysis experience from Bangladesh and Kenya
 - 14 Vulnerability Assessments in Kenya
 - 15 Capacity building for nutrition in Africa
 - 16 Integrating food security and nutrition in Niger
- 18 Agriculture, food security and livestock**
 - 18 Pastoral resilience in Kenya
 - 19 Improving food security and nutrition in Nepal
 - 20 TV reality show in Kenya to improve dietary diversity
 - 21 Home grown school meals in Malawi
 - 23 Unlocking Zambia's potential for nutrition
 - 24 Diversifying refugee diets in Rwanda
- 27 Water, sanitation and hygiene (WASH) and Nutrition**
 - 27 Why sanitation matters for nutrition
 - 27 Reframing undernutrition
- 28 Field Exchange 48: Issue summary**
- 29 News, reviews and events**

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Front cover: Zambia - IFAD Country Programme - October 2012 ©IFAD/ Siegfried Modola.

Back cover: Senegal - Rural Poverty Report - 2010, ©IFAD/Olivier Asselin.

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Women from the Agamso savings group work in their field, Somalia

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. It is available in English, French and Arabic.

How often is it produced?

Nutrition Exchange is a free annual publication available as a hard copy and electronically.

How to subscribe or submit an article

To subscribe to Nutrition Exchange visit <http://www.ennonline.net/nutritionexchange> To contact the editors with feedback or about writing an article, email nutritionexchange@ennonline.net

About the ENN

The ENN enables nutrition networking and learning to build the evidence base for nutrition programming. Our focus is on 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 En-net
- 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 delighted to share with you Issue 5 of Nutrition Exchange. In keeping with our aim to have the majority of NEX content written by national actors engaged in nutrition specific and sensitive activities, this issue features nine original articles from Kenya, Niger, Zimbabwe, Zambia, Rwanda, Malawi and Namibia, as well as an article from an African nutrition network. This issue also includes summaries of nutrition related reviews, research, and news that we feel could be of interest to our readers.

The original articles cover a range of programmatic experiences and policy issues. Two articles from Zimbabwe and Namibia focus on some of the challenges associated with the treatment of acute malnutrition, particularly management, supervision and supply logistics. In Zimbabwe, a survey of providers and programme users highlight the need for improved pipeline for supplies, particularly in the rural treatment centres. In Namibia, learning from the national immunization programme is being applied to the management of acute malnutrition to strengthen programme management, training and information systems.

Four articles from Rwanda, Zambia, Malawi and Kenya focus on food security and agricultural projects with a nutrition focus. A project in refugee camps in Rwanda is described where kitchen garden, poultry and rabbit rearing support was provided to families with acutely malnourished children to help families diversify dietary intake and to generate additional income. An article from the perspective of the Scaling Up Nutrition Focal Point in Zambia advocates for further agriculture policy reform to diversify crop production to improve the population's diets. In Malawi, a pilot school-feeding project is using solar powered irrigation to grow vegetables, corn and soya, to provide a potentially sustainable source of school meals and improve girl's attendance. Positive pilot results suggest potential for wider replication. Finally, an innovative reality television show in Kenya, which works with rural farmers to improve productivity, income and dietary diversity, demonstrates the opportunities that different media offer for communicating with farmers in the region.

The articles from Niger and Kenya describe efforts to integrate nutrition into the activities of other sectors in order to address the underlying determinants of undernutrition. A capacity building initiative in Niger has brought together multiple sectors to develop nutrition problem and solution trees and has identified ways to incorporate nutrition into their planning. In Kenya, nutrition is being integrated into assessments of highly vulnerable communities to further the understanding of risks and use this information to design and implement nutrition resilience interventions.

The African Graduate's Nutrition Student Network, a platform for networking, capacity building and development of nutrition 'champions' across the continent, is profiled in an article.

This issue also includes summaries of global developments including the Global Nutrition Report which tracks country level progress in improving nutrition. A newly launched financing facility called the Power of Nutrition aims to provide an additional US\$ 1 billion to countries with a high burden of undernutrition.

Summaries of recent publications include a Lancet article that advocates for more to be done to address child mortality by viewing efforts to address child mortality as a continuum of care across reproductive, maternal, newborn, child, and adolescent health. A report on Adolescent Nutrition highlights the urgent need to address the nutrition needs of adolescent girls to break the cycle of inter-generational undernutrition. A study looking at child growth patterns reports that catch up growth is possible during infancy and in the years beyond. Another study looking at the same data sets assesses changes in child growth and the association with education and cognitive development and concludes that improvements in child growth, after early faltering, might have significant benefits on schooling and cognitive achievement. Additionally, two papers on water, sanitation and hygiene (WASH) highlight the importance of WASH in improving nutrition outcomes.

Finally, a number of Field articles previously featured in ENN's Field Exchange are summarised. These include experience and results from a national survey in Mali to assess coverage for the treatment of acute malnutrition, which has resulted in actions to improve programme access. Experiences from Bangladesh and Kenya using a new method of nutrition causal analysis to inform programming are also featured along with an integrated programme to increase resilience in pastoral communities often faced with nutrition and livelihood crises. A food security and nutrition programme in Nepal that resulted in improved dietary diversity and nutrition knowledge is also summarized.

We would like to offer a warm thanks to all those who contributed articles for this issue. We strongly encourage those of you who have experiences and learning to share, to consider writing an article for our next issue. We particularly welcome articles from our Asia and Middle East readers.

The Nutrition Exchange Editorial team,
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.

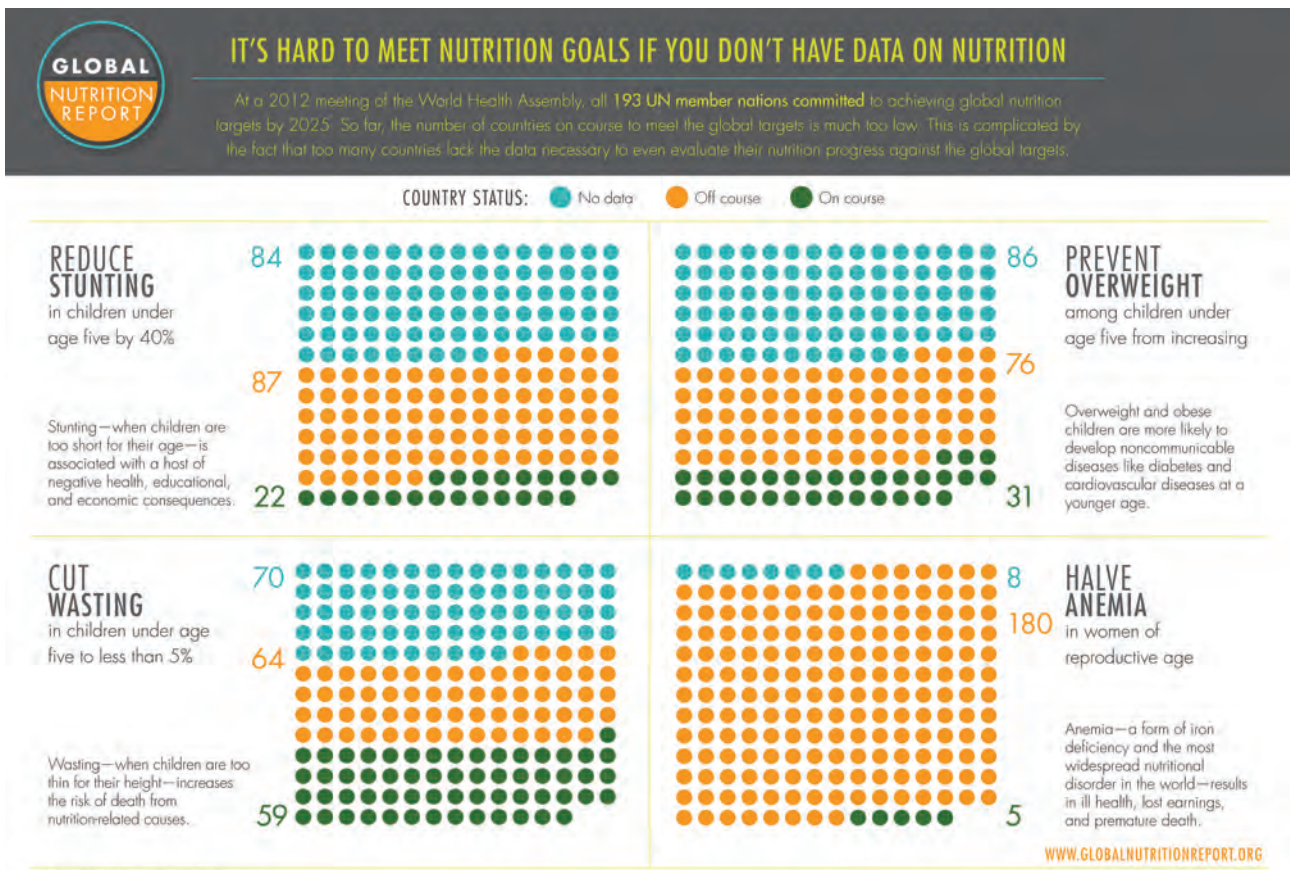
2014 Global Nutrition Report: Actions and Accountability to Accelerate the World's Progress on Nutrition



The Global Nutrition Report (GNR) has produced high quality nutrition profiles of all countries. To download the report for your country, and read the GNR in full, go to <http://globalnutritionreport.org>

Good nutrition is the bedrock of human well-being and is central to the post 2015 Sustainable Development Goals (SDGs). The GNR is the first in an annual series that tracks worldwide progress in improving nutritional status and contributes to strengthened accountability. Key points from the first report:

1. People with good nutrition are key to sustainable development. Malnutrition affects nearly every country in the world. More nutrition indicators need to be embedded within the SDG accountability framework.
2. We need to commit to improving nutrition faster and build this goal into the SDG targets for 2030. The targets should be more ambitious than simple extensions of the 2025 World Health Assembly targets. A new consensus about what is possible needs to be established.
3. The world is currently not on course to meet the global nutrition targets set by the World Health Assembly, but many countries are making good progress in the target indicators. More high-quality case studies are needed to understand why progress has or has not been made.
4. Dealing with different, overlapping forms of malnutrition is the "new normal." Most countries experience some combination of under-five stunting, anaemia in women of reproductive age, and adult overweight. Nutrition resources and expertise need to be better aligned toward the evolving nature of malnutrition.
5. We need to extend coverage of nutrition-specific programmes to more of the people who need them. More attention needs to be given to coverage data – an important way of assessing presence on the ground where it counts.



6. A greater share of investments to improve the underlying determinants of nutrition should be designed to have a larger impact on nutritional outcomes. We need to keep tracking the proportion of nutrition resources to these approaches. We must also provide more guidance on how to design and implement these approaches to improve their effectiveness and reach.
7. More must be done to hold donors, countries, and agencies accountable for meeting their commitments to improve nutrition. Stakeholders should work to develop, pilot, and evaluate new accountability mechanisms. Civil society efforts to increase accountability need support. We need to develop targets or norms for spending on nutrition.
8. Tracking spending on nutrition is currently challenging, making it difficult to hold responsible parties

- accountable. Efforts to track financial resources need to be intensified – for all nutrition stakeholders.
9. Nutrition needs a data revolution. Of the many information gaps, the ones that most need to be filled are those that constrain priority action and impede accountability.
10. National nutrition champions need to be recognized, supported, and expanded in number. We must fill frontline vacancies, support nutrition leadership programmes, and design country-led research programmes.

The second GNR is due out in September 2015. As well as measuring progress during the previous year, the second report will focus in particular on food systems, climate and business. We will profile this on the ENN website when it is published.

The Children's Investment Fund Foundation



Power of Nutrition: new independent fund for nutrition

The Power of Nutrition is a newly launched independent fund targeting \$1 billion of new private and public sector financing to tackle child undernutrition in some of the world's poorest countries. Its goal is to help children grow to their full potential, end the cycle of undernutrition, and enable countries to build strong and prosperous communities. The Power of Nutrition was launched in April 2015 with arrangements in place to unlock the first \$200 million.

The Power of Nutrition is an independent charity registered in the United Kingdom and governed by its own Board. It is open now to new public and private investors looking to support large-scale, high impact programmes that tackle the worst consequences of undernutrition. The partnership already includes the Children's Investment Fund Foundation, UBS Optimus Foundation, the UK Department of International Development, UNICEF, and the World Bank Group (WBG).

Every \$1 invested in the Power of Nutrition is guaranteed to be matched with up to \$5 of new public and private financing. The fund first matches investors' money, and then uses it to encourage more funding to be allocated to nutrition at the country level – including through new grants and development financing. This matching process multiplies

the power of the original investment and supports the countries most committed to overcoming the problems of undernutrition. At WBG, a new nutrition trust fund has been established which eligible countries can apply for funding. Contributions from Power of Nutrition will be matched 2:1. Eligible public and private donor contributions to UNICEF will be matched 1:1 by the Power of Nutrition fund.

'Nutrition is one of the best, most cost effective contributions that can be made to human development.'

Tony Lake, Executive Director, UNICEF

During the launch of the Power of Nutrition in April 2015, partnership representatives highlighted that the science underpinning nutrition interventions is clear, that nutrition is a powerful development tool and makes economic sense. It was recognized that more needs to be done to tell the story of nutrition in order to get public support and the support of other sectors. The need for equitable improvements in nutrition was also raised.

Find out more at <http://www.powerofnutrition.org/>

Adolescent nutrition: policy and programming in SUN+ countries

Summary of report: Save the Children, March 2015

Given the high numbers of adolescent girls who give birth and get married, in order to break the intergenerational cycle of malnutrition it is imperative that the nutritional needs of adolescent girls are adequately assessed and targeted, across multiple sectors.

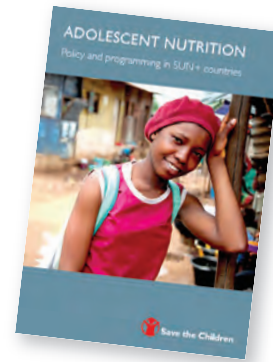
Adolescent Nutrition is a report by Save the Children that presents what is being done in Scaling Up Nutrition (SUN) countries and in India to address adolescent nutrition through policy and practice. It sets out roles and responsibilities for adolescent nutrition at the ministerial and agency levels. The report describes current policies and programmes aimed directly at addressing adolescent nutrition (e.g. multiple micronutrient supplementation and nutrition education in schools) as well as those designed to improve it indirectly (e.g. increase access to water and sanitation facilities at schools to improve menstrual hygiene management). The report highlights the urgency of

addressing adolescent nutritional needs, both to maximise their own growth potential, as well as to improve birth outcomes and nutritional status of their infants and children. The SUN movement represents an important opportunity to bring attention to adolescent nutrition issues and promote the inter-sectoral collaboration required to address them holistically.

Adolescent Nutrition is targeted at ministers in SUN countries who are responsible for the welfare of adolescent girls, senior officials in the United Nations and international agencies, programme implementers and policy-makers in SUN countries, and officials in donor governments and agencies. It presents a series of recommendations to bring about urgent and much needed improvements in adolescent nutrition.

To access the publication, visit

<http://www.savethechildren.org.uk/resources/online-library/adolescent-nutrition#sthash.FDS2T9Wm.dpuf>



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Women, children, and adolescents: the post-2015 agenda

Summary of paper: The Lancet, volume 384, no. 9949, p1159, 27th September 2014

Child mortality in under-five-year-olds has fallen globally from 12.7 million in 1990 to 6.3 million in 2013, although this is still not enough to meet MDG 4 (a reduction of under-five child mortality by two thirds by the end of 2015). Furthermore, the maternal mortality ratio has fallen by only 22% between 1990 and 2013, far off the target of a 75% reduction. Maternal, newborn, and child survival must therefore remain at the heart of the post-2015 global development agenda with specific focus on newborn survival (44% of under-5 mortality is among newborns) and on improving reproductive choices for girls, confronting difficult areas such as stillbirths; unsafe

abortions; child marriage; violence against females and gender inequality perpetuated by religious beliefs.

The independent Expert Review Group on Information and Accountability for Women's and Children's Health stated in its 2014 annual report, "high-quality health care for women and children should be a right not a privilege". This paper urges us not to wait for the SDGs to be fully developed and agreed, but to start now with a more inclusive global strategy based on a continuum-of-care for reproductive, maternal, newborn, child, and adolescent health that also involves non-health sectors such as education.



In 2014, the Mali Ministry of Health, UNICEF and the UK-based Coverage Monitoring Network (CMN) implemented a national scale assessment of severe acute malnutrition (SAM) treatment coverage (referred to as SLEAC) in Mali. The number of SAM cases admitted and treated in the integrated management of acute malnutrition (IMAM) programme in Mali has increased steadily since 2011. There was a need to evaluate levels of access against levels of need and to identify the barriers to access in order to learn lessons and improve services.

The survey was conducted from April to June 2014 across seven of nine regions in Mali (Kidal and Gao regions were omitted due to security conditions). The survey provided a detailed visual representation of treatment coverage, with information at the 'Cercle' level (the sub-regional administrative division). SLEAC was selected as the most appropriate survey method, as it is designed to estimate programme coverage over wide areas. The survey was planned and jointly implemented by CMN, UNICEF and national counterparts, including the Ministry of Health (MoH), and The National Institute of Statistics.

Based on a three tier classification of high coverage (>50%), moderate coverage (between 20% and 50%), and low coverage (<20%), the survey found that 4% (n=2) of the 48 assessed Cercles had high coverage, 46% (n=22) had moderate coverage and 33% (n=16) had low coverage. Coverage estimations could not be made for eight of the 48 surveyed Cercles because of low sample sizes. Figure 1 demonstrates the spatial spread of coverage. The overall point coverage level was estimated at 22.3% (95% CI = 16.7%, 27.6%).

Interviews were conducted with 894 carers of children who should have been admitted for treatment but were not enrolled to better understand barriers to access. Lack of awareness about malnutrition, followed by lack of awareness of the programme, were the reasons most frequently reported for non-enrolment. One third of carers (33%, 302/894) did not consider their child sick and

Measuring coverage of acute malnutrition treatment at the national level in Mali

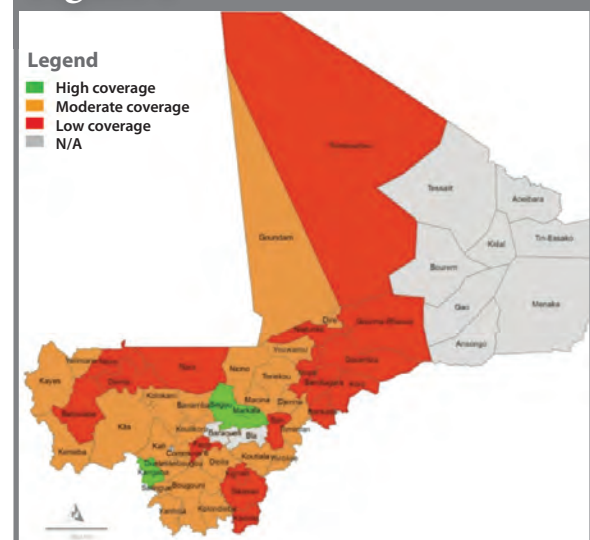
Summary of Field Exchange 49 article by Sophie Woodhead, Jose Luis Alvarez Moran, Anne Leavens, Modibo Traore, Anna Horner, Saul Guerrero.

amongst those that did, over half (53%, 316/592) did not consider their child malnourished. Amongst those that recognised their child was malnourished, half (50%, n=138/276) did not know where their child could be treated. Among those who knew their child was sick or malnourished and knew where to find treatment (n=138), major reasons for non-enrolment were distance to the health facility (n=31) and lack of money (n=21). In rural settings, median distance to travel to the nearest health facility varied from 7.5km to 15.5km.

Factors related to the organisation and quality of the programme also influenced the high rates of non-attendance. These included admission and discharge criteria leading to rejection, therapeutic food shortages, and lack of information provided to beneficiaries.

Results have provided clear recommendations that have since enabled the MoH to take decisive action to improve access to SAM services in Mali.

Figure 1 Distribution of SAM treatment coverage in Mali



Post-infancy growth, schooling, and cognitive achievement: Young Lives

Summary of research paper: Crookston, B.G. et al. *American Journal of Clinical Nutrition*. 2013 Sep; 1-9

Early life growth failure and resulting cognitive deficits are often assumed to be very difficult to reverse after infancy. The objective of this study was to use data from 'Young Lives', an observational cohort of 8062 children in Ethiopia, India, Peru and Vietnam, to determine whether changes in growth after infancy were associated with schooling and cognitive achievement at age 8 years. Height-for-age z-score (HAZ) was measured at 1 year and 8 years. Results showed that stunting at 1 year (Height-for-Age Z score <-2.0) was associated with being older than normal for school grade/year and lower scores in mathematics, reading comprehension and vocabulary. Lower than expected growth

from 1 to 8 years of age was also associated with being older than normal for school grade/year and lower scores in mathematics, reading comprehension and vocabulary. Children who recovered from stunting had better outcomes than children who remained persistently stunted, whereas children who became stunted tended to perform worse than children who were never stunted. The study authors conclude that improvements in child growth after early faltering might have significant benefits on schooling and cognitive achievement. Hence, although early interventions remain critical, interventions to improve the nutrition of pre-primary and early primary school-age children are also important.

Wasting and stunting



Hailu Strotaw, Ethiopia, 2010

Height measurement

Growth faltering and recovery in children aged 1– 8 years in four low- and middle-income countries: Young Lives

Summary of paper: Lundeed, E.A. et al. *Public Health Nutrition*: 2014 Sep;17(9):2131-7

The objective of this study was to characterize post-infancy child growth patterns and determine the incidence of becoming stunted and of recovery from stunting. Data came from 'Young Lives', a longitudinal study of childhood poverty in four low- and middle-income countries: Ethiopia, India, Peru and Vietnam. Length/height measurements of children from each of these countries (n=7171) were analysed at ages 1, 5 and 8 years.

Results showed that the prevalence of stunting, i.e. the proportion of this population found to be stunted (as defined by Height-for-Age Z score <-2.0) at 1 year of age ranged from 21% (Vietnam) to 46% (Ethiopia). From age 1 to 5 years, the prevalence of stunting decreased by 15.1 percentage points in Ethiopia and increased in the other cohorts. From 5 to 8 years, stunting prevalence decreased in all cohorts.

The incidence of becoming stunted, i.e. new cases arising in this population between ages 1 to 5 years, ranged from 11 % (Vietnam) to 22 % (India); between ages 5 to 8 years, it ranged from 3 % (Peru) to 6 % (India and Ethiopia). The incidence of recovery from stunting between ages 1 and 5 years ranged from 27 % (Vietnam) to 53 % (Ethiopia); and between ages 5 and 8 years, it ranged from 30 % (India) to 47 % (Ethiopia).

In conclusion, the study found substantial recovery from early stunting among children in four low- and middle-income countries. Results suggests that, while prevention of early-life stunting must continue to be a top priority, programme planners and implementers should also consider identifying and targeting children who become stunted, or who are at risk of stunting, during infancy and beyond.



Children who have lost parents to HIV/AIDS with their carers, Namibia

MMcGrath/ENN, Namibia, 2006

Lessons from Namibia's Nutrition Assessment Counselling and Support Programme for addressing child, adolescent and maternal undernutrition and HIV/AIDS

Hilde Liisa Nashandi and Marijke Rittmann

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Marijke is a nutritionist who previously worked at the Ministry of Health and Social Services in Namibia. She is currently studying for her Masters at Rutgers University, New Jersey, USA.

Namibia has an estimated population of 2.1 million. Although Namibia is food secure, many rural households are not able to produce or purchase enough food for consumption. According to the Namibia Demographic Health Survey 2013, stunting (low height for age) is 24% and wasting (low weight for height) is 6%. National HIV prevalence in Namibia is estimated at 18.2 percent (2012) though this varies from 39 percent to 8 percent across the regions.

To address the problem of severe acute malnutrition (SAM) in children under five years of age, the Ministry of Health and Social Services (MoHSS) developed an Integrated Management of Acute Malnutrition (IMAM) programme in 2008, focused on assessment and treatment of SAM. The carers of children with moderate acute malnutrition (MAM) were provided with counseling and encouraged to prepare nutritious local foods for their child but were not admitted to specific treatment programmes. However, there were many MAM cases that developed SAM, some with complications. To address this

issue, the MoHSS launched the Nutrition Assessment Counseling and Support (NACS) programme in 2010, offering wider services in nutrition, to replace the IMAM programme. The NACS has been funded by a number of donors though today, it is funded by the Global Fund, Centers for Disease Control (CDC) and the Government.

NACS provides routine universal nutrition assessment and treatment for all MAM and SAM children, pregnant women and post partum women 6 months after delivery and people living with HIV/AIDS (PLHIV). NACS is currently being implemented in all regions and most clinics in the country. Most health workers, including doctors and nurses, have been trained to effectively screen, treat, refer and provide follow-up services for SAM and MAM children, PLHIV, and pregnant and post-partum women for up to six months.

Nutritional assessment

The NACS nutrition assessment is conducted on all those visiting health facilities or accessing outreach services.

Nutritional status is assessed using mid-upper-arm circumference (MUAC) or body-mass-index (BMI) for adults, weight for height (WFH) and MUAC for children, and MUAC for pregnant and post-partum women. In addition, dietary assessment is conducted to inform nutritional counseling. Regular weighing is conducted to monitor the effectiveness of care, treatment, and nutrition interventions and to prescribe medicine doses. During home visits by the Community Health Care Providers, assessments are done with MUAC. Individuals found to have a low MUAC are referred directly to the nearest health facility for follow up.

Nutritional Treatment

Treatment for SAM consists of take-home rations of Ready-to-Use Therapeutic Food (RUTF) and Ready-to-Use Supplementary Food (RUSF) for MAM. These are prescribed to individuals for a limited time, based on clear admission and discharge criteria. These nutrition products are provided alongside nutritional counseling by the health workers at the health facility.

Programme review

A review of the NACS was conducted in November 2012 with the assistance of UNICEF, FANTA, CDC and the Global Fund. Key findings from the report include:

- Most providers interviewed had received supportive supervision, usually from the national level, but indicated the need for closer mentoring and supervision from the district level.
- Most facilities were well equipped for nutrition assessment.
- Storage conditions for specialized food products were inadequate in most of the facilities, and more than one-half of staff interviewed reported stock-outs and late delivery, although no facility had expired or damaged commodities.
- As a result of staff shortage, NACS providers assessed only clients who looked malnourished because they were too busy to assess each client on each visit.
- The monthly and consumption report were either incorrectly filled in or partly filled in due to poor supervision and on the job training.

One of the key challenges, which likely contributed to some of the findings raised in the report, was poor management and supervision from district and regional levels. This is reportedly due to the fact that staff at these levels were not adequately trained in how to manage and supervise the programme. This gap has resulted in a lack of

implementation support for facility-based staff, including how to correct mistakes and encourage increased caseload detection and coverage.

Learning from others

In considering how to improve the NACS, national level MoHSS programme officers noted that the Extended Programme of Immunisation (EPI) was a well managed and supported programme at all levels. EPI indicators are integrated in the Health Information System (HIS) and data entered by the Information Officers in the Ministry. Key factors underpinning the success of the EPI programme include:

- A special training for regional and district staff on how to manage, set targets, report and support the EPI programme.
- Regular meetings with key focal people to look at progress based on data reported.
- Targets are developed by the regions themselves and poor performance is compared against their own target.
- Regular feedback regarding performance through mapping of performance.
- Facilities have visual representation of their performance in the form of charts and tables for all to see.
- There are simple reporting forms.

Based on the review and the EPI experience, in 2013-2014 the NACS programme undertook the following activities to improve its management and supervision.

- Integration of NACS indicators into the Ministry's HIS was agreed with key stakeholders.
- Nutrition products (i.e. RUTF, RUSF and Combined Minerals and Vitamins) have been approved to be included in the Namibia Essentials Medicines list and to be procured by the Ministry through the Central Medical Store.
- Training on management for mid-level staff was conducted and trainings for health workers (including nurses) has been provided. Training on NACS will be integrated into the Nursing curriculum of all Registered and Enrolled Nurses in the country. NACS training materials have been revised to be more user-friendly.
- Regular supportive supervisory visits were agreed to be important at all levels.
- Indicators such as weight for age, length for age and weight for length/height have been added to the revised child health passport for children under 5 which will be implemented in all health facilities in 2015/ 2016.
- NACS reporting forms were simplified.

Conclusion and Way Forward

The MoHSS is continuing to geographically expand the NACS programme so that it will be implemented in all the health facilities in the country. There is political commitment to improve and expand capacity for the implementation of NACS and specifically, on-the-job training and possibly digital video conferencing sessions will be held for all regions. The Ministry continues to advocate for building human resource capacity in nutrition at the pre-service training level. Additionally, there are plans to improve NACS data management by developing standard operating procedures for reporting and there is some consideration of moving towards electronic reporting. Finally, the MoHSS aims to establish a referral system for NACS clients who successfully recover from the treatment of acute malnutrition yet are in need of economic and livelihood support. These individuals will be referred by health workers to the government-supported drought relief programmes and donor funded income-generating projects.



Measuring MUAC at St Benedict clinic



A health centre
in Zimbabwe

D Stevens/UNICEF, Zimbabwe, 2005

The distribution systems and channels of RUTF, F100 and F75 for wasted children in Zimbabwe: A rural and urban perspective

Vakai Makanganise Wisdom G. Dube

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Wisdom is a Nutrition Consultant supporting the MoHCC with the management of supplies and logistics for nutrition.

Introduction

Malnutrition remains a challenge in Zimbabwe. Levels of stunting (low height for age) are 32% (State of the World's Children Report, 2015) and wasting (low weight for height) is 3%, 1% of which is severe (Global Nutrition Report, 2014). In 2008, the Ministry of Health and Child Care (MoHCC), in collaboration with UNICEF, introduced the Community Management of Acute Malnutrition (CMAM) approach to reduce mortality and morbidity associated with acute malnutrition. The CMAM approach aims to empower communities to mobilize, identify and treat uncomplicated cases of severe acute malnutrition (SAM) in the home with Ready to Use Therapeutic Food (RUTF) while complicated SAM cases are referred to inpatient facilities for treatment with therapeutic milk (F75 and F100). Children with moderate acute malnutrition are referred to a supplementary feeding programme and other available programmes to improve household food security. The MoHCC with support from UNICEF is responsible for providing nutrition products and training health staff in providing both inpatient and outpatient services.

In 2014, the MoHCC revised its CMAM programme to integrate the management of acute malnutrition with other services such as the Integrated Management of Childhood Illnesses (IMCI); this wider programme is now termed the Integrated Management of Acute Malnutrition (IMAM). To further integrate the programme into the existing health system, at the end of 2014, nutritional products (F75, F100 and RUTF) were included on the national drug supply list and are being delivered as part of the routine delivery of health supplies.

The IMAM programme, largely funded by UNICEF, has been operating in several districts since 2008. By 2012 the programme had reached a geographical coverage of 76% and treatment coverage of 38.2% (State of Global SAM Management Coverage, 2012). The performance of the programme has not been quantified as there is limited monitoring and evaluation in place due to a lack of capacity. However, there are plans to address this in 2015/2016. Repeated informal reports suggest that disruption in the supply of nutritional products is a significant challenge and is likely to effect programme

effectiveness. A study was undertaken in response to these reports to identify ways to improve product supply and distribution and is outlined below.

Methods

The study was conducted in Harare and Marondera Districts representing examples of urban and rural IMAM programming areas. The survey area included ten clinics and two referral hospitals in Harare City Health (Municipality) and 19 clinics and one Provincial hospital in Marondera District.

A cross-sectional survey was conducted at randomly selected sites in both areas and included six health clinics in Harare and six health clinics in Marondera. Three questionnaires were designed for the following groups: 1) nurses, nutritionists and health personnel; 2) hospital store and logistics staff and 3) mothers of children admitted to the IMAM programme. Respondents were asked to rate different aspects of the current supply and distribution system of RUTF, F100 and F75 using a Likert scale (1=Very poor, 2=Poor, 3=Good, 4=Very good) and also included open-ended questions to obtain user perceptions of the current system and their suggestions for improvements. Questionnaires were tested for reliability and validity before being administered. Participants from each group were randomly selected and each gave informed consent to participate in the survey. Personal, unstructured interviews were also conducted with head office officials with experience of the supply and distribution system in UNICEF, WFP and the MoHCC. In total 120 interviews were administered across all sites (including questionnaire based interviews and unstructured interviews). Secondary data analysis was also conducted on documents from the MoHCC, UNICEF and WFP including records of stocks, complaints, RUTF consumption and lead times. Qualitative data was analysed manually and quantitative data was analysed using SPSS.

Results

Results showed that, whilst all health workers questioned in Harare (n = 11) were satisfied that transparency (integrity and honesty in the system) exists, some health workers in Marondera (2/5) felt that there was “no transparency”. Interviews with MoHCC staff revealed that they felt the

supply and distribution of nutritional products to be inefficient within the ministry structure. Of the health workers and logistics and supply staff questioned in Harare clinics, none 0/11 declared losses and spoilage in the receiving, stocking and distribution of nutrition products, compared to 4/22 (22%) in Marondera clinics, which may imply that rural institutions are more susceptible to losses and spoilage compared to urban institutions.

Regarding shortages of RUTF, only 2/40 (5%) respondents in Harare declared that their clinic had supply shortages compared to 26/37 (70%) of staff in Marondera clinics. In Harare, 4.5% of mothers/ caregivers declared that they did not receive the necessary supply of RUTF due to shortages compared to 68.4% in Marondera. This reveals that shortages of nutritional products are more common in rural areas. All staff (nurses, nutritionists and dieticians) in both Harare and Marondera stated that RUTF, F100 and F75 are being given according to the new WHO guidelines. This was supported by interviews with staff of MOHCC and UN agencies. Staff at health clinics rated the effectiveness of distribution of nutritional supplements by the MoHCC and UN agencies more highly in Harare compared to Marondera (in Harare 8/11 rated distribution as “very good” and 3/11 as “good”; in Marondera all respondents, n=22, rated distribution as “good”). Results suggest that there is room for improvement in the distribution system in Marondera, and perhaps in rural areas more generally.

Recommendations

Participants offered various recommendations for the improvement of the current supply-distribution chain of nutrition products, the integration of nutrition products into the national drug list and the IMAM programme in general. These include:

- Provide additional funding for RUTF. Current funding for RUTF (provided by UNICEF) compared with projected needs suggest there will be a funding gap in 2015.
- Increase national capacity in supply forecasting, supply management, and programme monitoring to promote better supply management.
- Increase stakeholder co-ordination, communication and collaboration to ensure efficient distribution systems for RUTF, F75 and F100 within existing health supply distribution systems.
- Restructure the supply delivery system to link to the existing electronic data processing system for all health supplies and nutrition products to address logistical challenges of supply management and distribution.
- Install storage facilities for nutrition products at all levels to improve distribution and reduce losses and spoilage of nutritional products.

Conclusions

The study suggests that the supply and distribution system in Harare has a high level of transparency with limited stock-outs. However, challenges exist in the supply and distribution of products in Marondera and potentially, in other rural settings. Recommendations have been made to improve the supply management and delivery of nutritional products in these areas; however, there is a strong need for advocacy to identify partners and raise funds to continue the IMAM programme. It is hoped that the additional monitoring and evaluation capacity in 2015 will help to standardise a system for routine monitoring and document the performance of the programme to facilitate advocacy efforts.



Mothers and children at a health centre in Zimbabwe

D. Stevens/UNICEF, Zimbabwe, 2005

Experiences of ACF in Nutrition Causal Analysis in Bangladesh and Kenya

This summary combines two articles by ACF published in *Field Exchange* 49. One article on Bangladesh (by Marijka van Klinken, Matthew Parnaby, Paulina Acosta and Julien Chalimbaud) and on Kenya (by Kristy Manners, Muriel Calo, Imelda Awino and Jacob Korir).

Action Contre la Faim (ACF) has developed a method for analysing the causes of undernutrition in communities, called the 'Link Nutrition Causal Analysis' (Link NCA). The Link NCA is a structured, participatory, holistic study, based on the UNICEF conceptual framework that identifies the causes of undernutrition in a local context to inform programming. 'Link' refers to the way in which this method links stakeholders across sectors, risk factors, different sources of information and links the analysis of causes to a programmatic response.

ACF carried out Link NCA studies in Satkhira District, Bangladesh and Isiolo County, Kenya and involved:

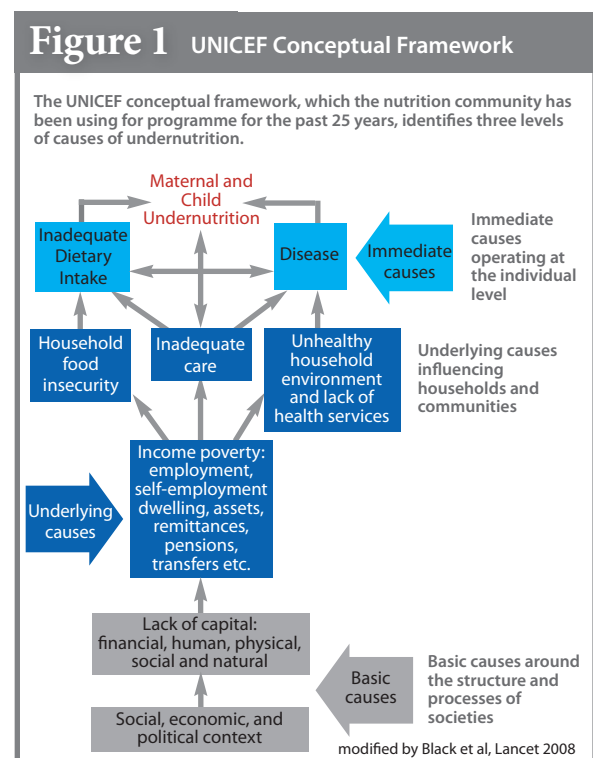
- (i) Identification of risk factors and causal pathways to develop a hypothetical model of the causes of undernutrition;
- (ii) Gathering of evidence on causes of undernutrition using qualitative and quantitative participatory data collection methods;
- (iii) Building of consensus around findings with community members;
- (iv) Validation of results: use of participatory and consensus-driven methods to revise the initial hypothesis according to results generated in (ii) and (iii).

Global acute malnutrition (GAM) prevalence in Satkhira, Bangladesh currently stands at 13.8% and stunting prevalence at 29%. The NCA revealed perceived risk factors for undernutrition in the community to be primarily poor food quality and low dietary diversity, resulting from poor land access and cultivation due to waterlogging (prolonged flooding) and poor maternal care, particularly due to the purposeful reduction of food intake in the 3rd trimester of pregnancy (noted in this study as a reason for low birth weight and underweight children).

Further analysis into maternal nutrition and birth weight revealed that social, cultural and economic constraints often prevented positive behaviours from being practiced. For example, societal pressure for early marriage and the early age of pregnancies led to poor maternal outcomes. Misconceptions and fears also perpetuated negative behaviours, such as the fear of caesarean sections and general fear of the health system, which drove the desire for small babies, leading to reduced food intake during pregnancy. The team concluded that such underlying structural and societal factors must be taken into account in ACF working areas to effectively tackle undernutrition.

A similar study was carried out by ACF in Isiolo County, in the semi-arid and arid lands (ASAL) in Eastern Kenya. The nutrition situation in Isiolo County remains serious with GAM levels of 13.2% (1.7% severe acute malnutrition).

Findings from the NCA highlighted three major factors for the high GAM: (i) high child morbidity, (ii) inadequate access to safe water for household use, and (iii) poor access to appropriate age-specific foods, including milk, in the dry season. The findings also showed that important contributory factors were recurrent drought and programme interventions that increased women's workload in significant and detrimental ways (and in turn affected maternal health and the care of young children). Communities proposed a number of insightful solutions to address risk factors, such as the provision of resources for the community to dig more shallow wells and latrines and to diversify livelihoods to improve crop production. These ideas were shared with county level actors. ACF also developed a detailed county plan which is being used as a key advocacy tool and which county leaders are keen to accomplish.





Incorporating Nutrition into Vulnerability Assessments: A practical approach from Kenya

Victoria Mwenda

Victoria has a Bachelors degree in Nutrition and Dietetics from Kenyatta University and a Masters degree in Public Health from Liverpool University in the UK. She currently works as the Nutrition Advisor for the Kenyan Red Cross.

Background

In recent years, resilience has become a common concept amongst humanitarian and development actors with various operational definitions. In 2014, the UN Food and Agriculture Organization (FAO) produced a strategic paper, Nutrition and Resilience, which sought to define the link between nutrition and resilience. In this paper, nutrition was proposed as “both an input to and an outcome of strengthened resilience” with a reduction in malnutrition considered critical in the strengthening of household resilience largely because well-nourished individuals are healthier, can work harder and have greater physical reserves. Inferred within this is that households that are nutrition secure are better able to withstand external shocks and conversely, households that are most affected by shocks and threats face the greatest risk of malnutrition. Therefore, strengthening resilience is put forth as essential to efforts aimed at reducing malnutrition.

Vulnerability and capacity assessment (VCA) is a process of participatory investigation designed and employed by the Red Cross/Crescent Movement to assess major risks affecting communities and determine people’s vulnerability to those risks and their capacity to cope and recover from disaster. The VCA methods of inquiry include key informant interviews, focus group discussions (FGD); transect walks (walks through communities) and observations. In various highly vulnerable Arid counties in Kenya, the Kenya Red Cross Society (KRCS) has applied the VCA approach to enable communities to better understand predicted risks and hazards in their environment, increase awareness of their capacities to cope with risks and hazards, and implement disaster preparedness and response interventions.

A review of 15 VCA assessment reports in four Arid counties conducted from 2011 to 2013 highlights that in 14 out of 15 VCAs, malnutrition was identified by

communities as a vulnerability or risk arising from hazards such as drought and conflict. While malnutrition was identified as a risk, communities did not uniformly explore during the VCA why this is the case or identify capacities for addressing the risk. Just 3 of the 14 VCAs (21%) described how malnutrition could be resolved by the communities and other actors. In these specific cases, the communities identified appropriate care and feeding practices as mechanisms that they could employ to address malnutrition, in addition to an improvement in access to health care services. The same communities identified the link between improved nutritional status and access to food during lean seasons.

Integrating nutrition into the VCA

In 2013, the KRCS nutrition department incorporated simple tools to enable teams to better assess maternal, infant and young child nutrition to enhance the VCA process and assist communities to understand malnutrition in relation to the major hazard they had identified. The inclusion of nutrition assessment did not elicit extra financial cost or additional time. During mobilization, women were asked to come with their children during the FGDs and the children were assessed using mid-upper arm circumference (MUAC). Results were explained and those with children with a MUAC of < 12.5 cm were referred to the nearest health facility. All the women received advice on appropriate feeding practices for their children (specific to age) and health services to prevent malnutrition. Messages around breastfeeding, complementary feeding and other supportive actions like hand washing were the main focus and part of a package of information given to mothers/caregivers. The teams also asked standard questions on dietary diversity (from the Kenya Nutrition Sector rapid assessment tools 2013) to gather more information on the kinds of foods that were accessible and consumed. Clear gaps in knowledge on optimal nutrition practices and how they increase vulnerability to malnutrition were documented. The KRCS

team was then able to incorporate nutrition education, community based nutrition assessments with referrals to the government facilities aimed at increasing awareness and access to nutrition services. Community health volunteers and community health workers were all trained using the standard government community strategy modules (2013) to build their capacity for service delivery. Key areas covered in the training include screening, growth monitoring, nutrition and health education, referral to other facilities and reporting.

Conclusion

VCA's are a useful tool for minimizing disaster risk and they hold the potential to be expanded to investigate risks and vulnerabilities related to nutrition. Based on this experience, the KRCS aims to further mainstream nutrition into the VCA enquiry

and will support VCA team members to understand how nutrition links to resilience. KRCS has simultaneously started the process of aligning its approaches including its monitoring and evaluation framework across thematic areas (Health, WASH, Nutrition, Food security, Climate change) to have a more focused output that recognises all elements related to individual, household and community resilience. To gather support for, and understanding of the concept of resilience for nutrition, KRCS will continue to work with various government sectors including Health, Agriculture, Water, Education, Devolution (which includes gender and social protection), Finance and Planning to increase nutrition specific and sensitive actions and advocate for investment in nutrition to reduce vulnerability and risk to drought and conflict.



Members of AGSNet,
Bloemfontein, South Africa

Adam Sandow, 2012

Capacity Building through the lens of the African Graduate Nutrition Students' Network

Joseph Ashong

Joseph is the Coordinator for the African Graduate Nutrition Students Network. He is a Nutrition Specialist with USAID Ghana

In recent years, nutrition has gained global recognition as a key development strategy for many governments, bilateral, multilateral and development organisations. Africa is lagging behind in development terms due to many reasons, one of which is poor nutrition. In 2013, over one third of all stunted and wasted children were in Africa. Africa has experienced the smallest relative decrease in underweight (weight for age) prevalence compared to other continents, with an underweight prevalence of 17 per cent in 2013, down from 23 per cent in 1990 (Global Nutrition Report, 2014). More effort is needed across the continent to address undernutrition. Efforts of governments, academic and research institutions, schools and colleges, civil societies, donors, and the media must be stepped up and be better coordinated to achieve real progress toward food and nutrition security in Africa. The African Graduate Students' Network (AGSNet) aims to support the process.

The AGSNet was initiated in 2002 by a group of students at Cornell University, USA, as a platform for networking and relationship building among nutrition students and young African nutrition professionals. The AGSNet aims to build core nutrition competencies, organizational skills as well as appropriate attitudes and values while fostering the development of strong African nutrition advocates or

champions who will keep the fight against malnutrition in Africa at the forefront of their work.

Activities

The network currently holds a congress twice per year as part of the African Nutritional Epidemiology Conference (ANEC) organized by the African Nutrition Society (ANS). At this congress, experts are invited to speak on topics relevant to African nutrition. Additionally, the network hosts training workshops on various topics such as research dissemination.

Community activities are also arranged for members to foster a common attitude. Recently the network conducted an outreach visit to the Tower of Hope, a non-governmental organization based in Bloemfontein, South Africa. Tower of Hope supports and advocates for the rights of people living on the street. AGSNet members gave a talk and answered questions on basic health and nutrition.

Membership and operations

AGSNet currently has over 400 members from over 40 countries in Africa, Europe, North America and Asia. Members pay an annual membership of approximately \$25 USD (though this is country specific). The network is run by an elected, voluntary steering committee and is

supported by regional and country representatives who are encouraged to organize activities at the country level and to promote AGSNet. For instance, members in Nigeria recently held a meeting where they brought in experts to talk about career development and how to achieve higher nutrition qualifications.

The network's main medium of communication is email. It has a list-serve by which information is shared and members interact. The network has a website and a Facebook account. Information on workshops, seminars, conferences, jobs, latest nutrition research, relevant articles, and general good practices are shared on these platforms as well as via the listserv.

AGSNet members are encouraged by the network to attend conferences, training workshops and seminars to enhance their technical capacities and network with experts in the field to build social capital. The network sources external funding for specific activities.

Challenges

Membership. AGSNet membership is mostly made up of students. Keeping up the interest and enthusiasm of members after their training as well as encouraging new students/members to join has always been a challenge.

Payments and financing. Membership is paid in-country, AGSNet does not have a system for global fee collection. Additionally, while the secretariat works on a voluntary basis, funding is required for specific projects.

These challenges notwithstanding, the network has been able to hold meetings in Morocco, Kenya and South Africa since its inauguration in 2005. It has also been successful in creating a platform for collaboration and sharing of ideas between young Africans in an atmosphere of openness, sincerity and friendship.

Moving forward

The network is very active and has several projects running currently. Specifically, the network is

- Developing a mentorship programme in which members will be matched with experienced nutritionists, particularly those working in Africa
- Exploring the possibility of collaborating with other national and international nutrition societies and similar goal-oriented organisations
- Revamping its website to include a list of African nutritionists, their locations and areas of expertise to make it easier for the global community to find collaborators for work in and/or related to nutrition in Africa
- Developing an advocacy and communications strategy to support nutritionists in advocating for nutrition
- Building relationships with institutions such as African Union Commission to contribute to the discussion around nutrition in Africa

There is a growing community of young and enthusiastic Africans championing the fight against malnutrition in Africa. AGSNet is building friendship and a unifying front among them for improved nutrition in Africa.

Building understanding and capacity for integrating food security and nutrition approaches to address widespread child undernutrition in Niger

Solange Heise

Solange Heise is the Food Security and Nutrition Officer at the FAO representation in Niger

Background

Niger, a landlocked country in the Sahel of West Africa, is regularly confronted with acute and chronic food insecurity and nutrition crises. The results of a national nutrition survey conducted in November 2013 indicated that over 4 million people, approximately 23% of the population, were food insecure. Additionally, stunting, (low height for age) was 53% and global acute malnutrition (GAM) was found to be 14.3%. Despite the poor nutrition situation, Niger has made important progress nationally to address its nutrition problems.

There is also political commitment to integrate food security and nutrition issues within the country. In 2012, Niger launched the 3N Initiative (Les Nigériens Nourrissent les Nigériens – Nigeriens Nourish Nigeriens).

Solange Heise/FAO, October 2014



Participants are building a nutrition problem and solution tree, Niamey, Niger

This is a multi-sectoral strategy designed to empower Nigeriens to improve food and nutrition security, with an emphasis on sustainable food production. The 3N initiative is a bottom-up approach, which encourages local civil society, and grassroots organizations within the municipalities to assess their own needs and put forward proposals for government assistance. Furthermore, in 2011, Niger joined the Scaling Up Nutrition (SUN) movement and REACH (Renewed Effort against Child Hunger), two major initiatives to support the Government in the implementation of its multi-sectoral nutrition strategy and the scale-up of food and nutrition actions.

Despite the many good initiatives linking food security and nutrition in policy and assessment, challenges remain in joint planning and implementation. Continued efforts are required to develop technical expertise to actually transform these initiatives into integrated approaches on the ground.

To this effect, a regional workshop for Sahelian countries was held in Senegal in June 2014. The workshop was hosted by the UN Food and Agriculture Organisation (FAO), in collaboration with several humanitarian organizations working in food security and nutrition as part of an ECHO funded project "Strengthening food security capacity". Representatives from Chad, Senegal, Mali, Niger and Burkina Faso attended. The focus was on addressing the challenges of integrating nutrition and food security programmes in emergency situations and building nutrition resilience. Following the workshop, each country was assigned to conduct a similar workshop in their own country. In Niger, a three-day workshop was held in Niamey in October 2014 at which 50 people working in the areas of nutrition, agriculture, livestock, water, sanitation and hygiene (WASH), education and the media participated. The majority of participants were government staff.

Key learning and experiences

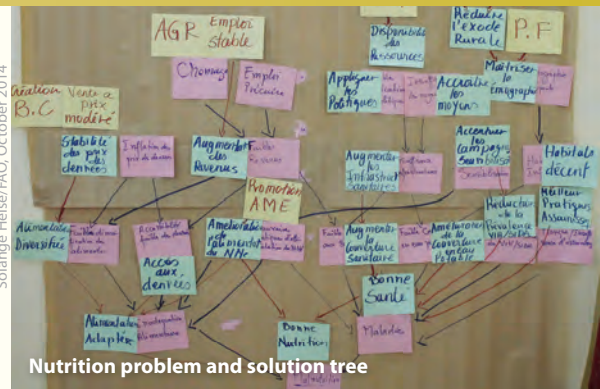
The workshop consisted of a very lively and participatory exchange of views and ideas around the various causes of undernutrition. The participants built problem and solution trees, identifying the determinants of undernutrition for major vulnerable livelihood groups in Niger (pastoralist, agro-pastoralists, agriculturalist and petty traders). Participants discussed and identified potential interventions to address specific issues, using available data and their expertise. The workshop highlighted that nutrition should be addressed through multi-sectoral policies and programmes and mainstreamed in relevant sectoral strategies.

Participants recognized that in order to design programmes through a 'nutrition lens', they needed to understand the causes of undernutrition, assess the situation accurately, target the most nutritionally vulnerable and involve communities from the early stages of design.

Participants identified the following actions to concretely integrate nutrition in other sectors in Niger:

- Improve coordination between sectors, at national, state and county levels, which could be supported by enhanced coordination between the Food Security, WASH and Nutrition Clusters
- Implement joint activities such as cooking demonstrations based on local recipes, school gardens, provision of inputs for food diversification, production of nutrient-rich crop varieties, and behaviour change communication
- Collect information such as household dietary diversity, cultural norms, and feeding practices

Solange Heise/FAO, October 2014



- Improve analysis of available data (e.g. joint assessments) by conducting it jointly with representatives of other sectors
- Build capacity at different levels including strengthening capacity of community networks – including youth and women
- Incorporate gender and accountability into all projects

Participants acknowledged that the workshop was extremely useful and helped them to better understand the nutrition situation and nutrition coordination in Niger and to identify how they could maximize the nutritional impacts of existing food security and livelihoods programmes.

Challenges and Recommendations

Despite the positive feedback of participants on the workshop, practically mainstreaming nutrition in sectors other than health in Niger is challenging. It was noted that the numerous existing coordination mechanisms tend to be sectoral, technical and focus mainly on emergency issues, even if development issues are also addressed. To support the rollout of mainstreaming nutrition in Niger, participants recommended that the 3N Initiative develop a forum to discuss nutrition-sensitive agricultural and food security programmes at national and local levels. Participants also suggested the development of a multi-sectoral nutrition plan.

Furthermore, the discrepancy between the significant resources allocated to treatment programmes in emergencies compared to long-term prevention programmes was highlighted. Participants recommended increased advocacy to donors requesting funding for long-term programmes in addition to maintaining the funding for treatment programmes.

Next steps

At the end of the workshop, participants identified three next steps:

- Report back to their organizations on the outcomes of the workshop
- Advocate for more nutrition-sensitive approaches in their work
- Document and share their good practices and experiences with others actors through clusters or technical working groups

FAO Niger will continue, in collaboration with 3N and REACH, to strengthen the individual and the organizational capacity to integrate nutrition and food security at all levels. To address this, three further regional workshops are planned for 2015.

Additionally, FAO Niger will continue to advocate for the integration of nutrition sensitive approaches at the national level, particularly through the review and the adoption of the national nutrition policy and the elaboration of a multi-sectoral nutrition plan.



Goats accessing water from the newly constructed trough in Tana location, Isiolo County

Martin Muchangi, Kenya, 2012

Participatory risk analysis and integrated interventions to increase resilience of pastoral communities in Northern Kenya

Summary of Field Exchange 49 article by Daniel Nyabera, Charles Matemo and Muriel Calo

In Kenya, livestock production in the Arid and Semi-Arid Lands (ASALs) accounts for nearly 95% of household income. However, cyclical droughts continue to threaten livestock production and can contribute to the gradual erosion of community resilience and traditional coping strategies. In the 2011-2013 drought response in Northern Kenya, Action Against Hunger (ACF) intervened in Merti and Garbatulla Districts as part of a USAID-supported Arid and Marginal Lands Recovery Consortium (ARC). More than 85% of these districts were drought affected and up to 70% of livestock were lost due to worsening pasture and grazing conditions. ACF conducted a participatory risk analysis and integrated interventions to improve livelihoods and drought preparedness. Activities were carried out in three priority areas, as identified by affected communities:

(i) Rangeland regeneration

Actions to regenerate rangeland (i.e. open country used for grazing and hunting) included community resource mapping and stakeholder analysis, revitalisation of community rangeland management institutions to protect areas vulnerable to degradation, cash-for-work (CFW) to re-seed and enclose vulnerable areas, training and the planning of on-going activities to protect regenerated pastures. A total of nine reserve pastures of 12 hectares each were regenerated, which improved access to fodder for at least 23,000 livestock.

(ii) Water harvesting for livestock

The CFW activity was established to support the

rehabilitation and construction of livestock water points. An estimated 186,440 livestock and 40,845 livestock owners benefited from rehabilitated or newly constructed water sources including water pans, shallow wells, boreholes, water storage tanks and livestock water troughs. In total, 1359 people participated in CFW water point rehabilitation and construction activities.

(iii) Improving livestock markets

Livestock market locations within migratory routes were identified through participatory decision-making activities. Two livestock markets were rehabilitated and Livestock Market Management Committees were established to manage them on an on-going basis.

In June 2012, ACF partnered with other Non-Governmental Organisations to lobby for a livestock market co-management model in which local communities share the management of livestock markets with the county council. This model has so far been adopted in one county, which has already served to increase revenue and reduce operation and maintenance costs.

The project showed that, even in emergency contexts, interventions can and should seek to build and develop local capacities to manage livestock assets, using local structures, knowledge and good practice, in addition to providing more classic short term emergency assistance such as destocking or feed and water distribution. Cash can also be an important tool to engage communities in rehabilitation.



A farmer assisted by the project shows her vegetable garden

Improving food security and addressing nutrition of vulnerable farming communities affected by conflict and natural disaster in mid-western Nepal

Summary of Field Exchange 49 article by Guido Agostinucci

Nepal is one of the poorest countries in Asia with high levels of food insecurity and the highest burden of stunting in the region; half of Nepalese children under five years are stunted (low height-for-age). The farming population of the mid-Western region of Nepal is particularly vulnerable to food insecurity due to reduced food production as a result of a decade of internal conflict (1996-2006), ethnic tensions, floods, landslides and three consecutive years of drought.

The Food and Agriculture Organisation of the United Nations (FAO) formulated a project to improve food security and nutritional status in this area, targeting the most vulnerable farming communities in five districts. Activities were carried out in collaboration with the relevant Government Departments, other UN agencies and NGOs from June 2008 to December 2009. Activities included: a) training and provision of cereal and vegetable seeds appropriate to local agro-conditions to increase **crop production**; b) provision of goats, training, veterinary equipment and shed construction materials to improve **livestock production** and c) **nutrition education** for programme participants and trainers.

A total of 15,768 households were supported by the project. Out of these, 14,173 households undertook crop production activities, 1,595 households were involved in livestock production, 8,670 families actively participated in nutrition trainings and 144 community health workers participated in training sessions on nutrition.

In terms of crop production, approximately 8,120 hectares of vegetables and cereal crops were planted. Compared to local varieties cultivated with traditional methods, average yield increases ranged between 10% and 25% while higher resistance to local pests and diseases were observed. Most farmers in the programme re-planted second generation crop seeds. In terms of livestock activities, on average, each participant was able to add between one and two goats to their flock after the first year of the project.

Dietary diversification was supported by promoting the availability and consumption of vegetables and animal

proteins; the number of vegetable species grown increased from an average of 3.7 prior to the project intervention, to 5.1 by the end of the project. The number of months for which participants consumed self-produced vegetables also increased, from 3.3 months to 4.3 months a year. There was an increase in the number of participating households reporting food self-sufficiency for more than six months of the year (from 19.2% to 33%). The increased number and availability of goats and goat products in the communities is assumed to have increased consumption of proteins from animal origin. The project also enhanced the nutritional knowledge of participants and increased awareness of nutritious and locally available food. Awareness was also raised of the links between nutrition and agriculture and emergency response with longer term programmes.

Project activities were replicated and expanded to ten additional districts in a subsequent FAO project funded by the European Union and training materials produced by the project were utilised by the Department of Agriculture and Department of Livestock Services to train personnel.



A typical view over the mid hill areas of the Mid-Western Region of Nepal

Alexis Calice, Kenya, 2014

Shamba Shape Up
filming a farmer

The TV series

Shamba Shape Up (SSU) is make-over style TV show produced by The Mediae Company in East Africa and funded by a range of sponsors. The show aims to give both farmers and audiences the tools they need to improve their farms (shambas). The series tackles issues such as soil fertility, livestock and poultry health as well as dietary diversity and how to maximize the nutritional value of vegetables consumed. Other relevant topics such as financial planning, solar power and harvesting rainwater are also included depending on the needs of the farmer in the episode.

Each episode focuses on one farmer and her/his farm. The SSU team, which includes a film crew and a number of experts such as veterinarians and crop specialists visit a different farm each week in a different area of the region. Typically, the film crew spends four days with each farm/household, allowing time to get the experts' opinions and build any necessary improvement structures.

SSU's estimated audience in the first series was around 5 million, (in Kenya) with this number estimated to rise to 10 million by the end of series 5 in the whole of East Africa. The show started its fifth series in March 2015 and includes farms across three countries; Kenya, Uganda and Tanzania.

A leaflet has been developed for each episode in each country, which provides information on the topics covered and aims to reinforce the learning on the show. Leaflets are online www.shambashapeup.com and hard copies are available by post (in Kenya) via SMS.

Continued engagement via social media

SSU is not just about the TV episodes, but also aims to continue the discussion with farmers well beyond farm visits. To do this, SSU has established an active Facebook page, with over 43,000 fans logging in to discuss the

Shamba Shape Up – A farm make-over TV show in East Africa

Katharine MacMahon and Patricia Gichinga

Katharine works in the Shamba Shape Up's communications department and supports the online following on social media.

Patricia Gichinga is the series director and production manager

episode, ask questions and chat with other local farmers. Technical experts are tagged in questions that relate to them, allowing them to engage directly with the customer. SSU also has an active Twitter page and a blog where information on the series and from other sponsors is sent and received.

Text messaging and phone support to farmers

Recognising the thirst for agricultural information, SSU is launching iShamba, a service that farmers in Kenya can engage with to receive expert advice on their farming techniques via their cell phones. Any farmer in Kenya can join by sending the text message "JOIN" to 21606. Farmers will receive a call from one of the agronomy experts who will gather information on a farmer's location, what is farmed, farm size, and what information the farmer would find most useful to hear about. Subscribers will then receive weekly market price information, weather forecast updates, special offers from sponsors and agriculture tips relevant to their location, for example an SMS detailing the pest risk in the farmer's area and how best to combat it, alongside details of the best time to plant maize in a given area.

Impact

The Mediae Company monitors changes in knowledge, attitude and practice of viewers. At the end of each series, SSU commissions independent research to look into the results and changes coming about within viewers of the show. Research by the UK Reading University in 2014 found that the overall number of households reporting that they had made changes to their maize or dairy practices as a result of the programme, or who reported that they had benefited from SSU through increased profit or improved household food situation, was estimated to be 428,566. From these two enterprises, the estimated net economic impact in the 25 counties of Kenya was approximately US\$24.7 million.

Alexis Calice 2014



Planting seedlings



Shamba Shape Up team



Chicks in boxes

Farm visits and filming by Patricia Gichinga

The Shamba Shape Up (SSU) team is small, but focused. With only a few days to film an episode, we have a lot of work to do, fast. Typically, a farm (shamba) is 'scouted' a couple of weeks before filming starts. Scouting includes going around farmland, speaking to extension workers, partners and farmers about farms that may fit what we are looking for. Although we are fairly flexible about what we are looking for, it always needs to fit with the content needs for filming in the area. If we are lucky enough to find this, we always hope to find a young man or woman, preferably, who finds farming a better prospect than city life.

Once scouting is complete, we head up to film. We have about 2 days per farm to film the content. Filming is always great fun and people love to come watch the filming and ask questions about their own farm.

Another exciting part of the show is filming a 're-visit' episode. Re-visits are where we go back to see farmers from the series to see how they are getting on. In many cases, farmers are doing so much better, and often they have become the go-to-guy for other local farmers as they become known to have reliable information from the show and from our experts. In this way the learning keeps on spreading.

To find out more about this award-winning show, visit www.shambashapeup.com or contact Anne Marie at annemarie@mediae.org.

Original article

Piloting a sustainable model for home grown school meals in Malawi

Kondwani Nanchukwa and Blessings Mphande

Kondwani Nanchukwa holds a Bachelors degree in Family Science and a Masters degree in Rural Development. He is currently the Programmes Director for the Foundation for Irrigation and Sustainable Development (FISD) in Malawi.

Blessings Mphande holds a Diploma in Irrigated Agriculture and is the Project Officer for FISD.

Background

The Government's Ministry of Education (MoE) in Malawi recognizes that many pupils come to school hungry, drop out rates are high and girls' enrolment in primary school is low. Although admission rates to primary schools initially soared by more than 80 per cent after free education was introduced in Malawi in the mid-1990s (News from Africa, 2002), Malawi has one of the highest school dropout rates in southern Africa, with 11 per cent of girls, and 10 per cent of boys, dropping out between grades five and eight (National Education Update, 2014). To address this, the MoE School Health and Nutrition Strategy (2008) advocates for the provision of school meals, with a goal to scale up school meals to all schools in Malawi by 2040.



children eating porridge at one of the target schools in Malawi

The School Meals Programmes (SMP) in Malawi started in 1999, with a pilot in Dedza District, targeting 23,000 school going children from 24 primary schools. The programme was started by World Food Programme (WFP) in response to request by the government. A standard SMP in Malawi provides children with a cooked porridge made from a fortified blended flour (corn and soya beans). About 35% of school going children benefit from a SMP in Malawi today. Over 95% of SMPs in Malawi are based on the direct supply of this fortified blended flour to the schools. A significant challenge to these programmes is that they are externally funded and start and stop based on whether there is donor funding. The Foundation for Irrigation and Sustainable Development

(FISD) has developed and is piloting a sustainable SMP model to address this challenge.

Overview of the pilot

From May 2014 to March 2015 FISD has been piloting a 'Home Grown' SMP that supports local production of food items for school children's lunches from school gardens with solar powered water pumps. The aim of the pilot is to develop a school garden that provides a sustainable and sufficient supply of food to feed the school children all year round with no need for additional foods from external sources. Ultimately it is hoped that this will increase primary school enrolment and reduce absenteeism and drop-outs.

The pilot is being implemented at two primary schools in Lilongwe District (Nkhupa and Chiponde Primary Schools). The project was developed based on learning from FISD's school meals experience in 60 primary school and Early Childhood Development Centres (ECDs) since 2008. Key aspects of learning from these projects that contributed to the design of the pilot include:

- Lack of readiness by communities to take over SMPs in case of phase out of external support
- Lack of capacity of local communities to sustain conventional SMPs in absence of donor funding
- Availability of land in the communities that can be used to produce crops for school meals
- Unreliability of rains

In the pilot, one acre of land for gardening per school was identified. A water pump powered by solar energy was installed. Crops grown in the gardens include maize, soya beans and seasonal vegetables such as pumpkins and cucumber. Community members are trained in processing the food from the gardens and preparing highly nutritious meals. The communities mill the mixture of maize and soya beans in commercial mills that are locally owned. Funds for milling are contributed by the parents of school children. The typical school meal is comprised of a blended flour made of whole white/yellow maize (65%), whole soya (25%) and sugar (10%) which contains 14% protein, 6% fat, 5% fibre and a total of 350 kcal/100g (at a minimum). It is recognized that this flour is not fortified; work is on-going to identify ways to improve the nutritional content of the flour. This flour is typically prepared into porridge, supplemented with seasonal vegetables and fruits and served to schoolchildren for lunch. The one-acre school gardens provide for an average of 1500 children per school year.

A key component of the project is working with the communities. Communities must take part from the beginning of the project, and be engaged throughout. During the development of the project, meetings are held with the community to jointly identify problems around sending children to school and nutritional challenges of school aged children. The project is then explained to the communities so that they understand the importance of home grown school meals as a strategy to increase enrolment and retention, particularly of girls. A joint action plan is developed in which the communities and all the players involved including FISD indicate their contributions to the project.

The gardens are managed by community members through School Management Committees (SMC). At least one teacher is designated as the School Health and Nutrition teacher and h/she takes primary responsibility for the garden along with the SMC. Community members and teachers are not paid or provided incentives for managing the garden. School children are also involved in the gardens with the teachers

through their agricultural lessons. During school holidays, community members take care of the gardens.

Cooking facilities and supplies are provided by the project. Fuel (fire wood) is provided by parents of the school children and members of the community. The project is trying to promote the use of paper briquettes to reduce the use of fire wood.

Funding

It costs approximately \$16,000 USD to set up a school garden which includes cost for geo-physical surveys, solar pumps, cement and labour for construction of water tanks. After the garden is built and an irrigation system installed, the only external support that is required is seed and fertilisers.

Multi-sector Government support

FISD collaborates with several Government Ministries throughout the project. The Ministry of Agriculture and Food Security provides agricultural extension support throughout the different phases of the project. FISD hands over the responsibility of continued agriculture support of the school garden at the end of the project (after 18 months). The MoE provides policy direction to ensure that it adheres to the School Health Nutrition Country Strategy. The Ministry of Health and Population provides de-worming, vitamin A supplementation and technical guidance in the formulation of school meals menus.

Challenges

Scarcity of land. In schools that are close to townships, there is often not enough land for a one-hectare garden.

Domestic livestock. Livestock such as goats and sheep can damage crops, especially during winter, when animals in rural areas are normally on free range. In the two pilot gardens, barbed wire was installed around the gardens to prevent this.

On-going funding. Donors initially provided funding for one year for each pilot garden. While this includes the large costs associated with the irrigation system and fencing, fertilizer, seeds and upkeep of the garden will incur a small on-going cost to the community.

Results and learning

The main result is that school children now have access to school meals. In addition, school enrollment has increased by 10% and absenteeism and dropouts have been reduced by 40%. Girls' enrolment specifically has increased by 25% whereas absenteeism and dropout rates for girls have decreased by 12% and 35% respectively.

One main point of learning from the pilot is that gardens need external financial support (primarily for agricultural inputs and technical advice) for longer than one year. The donor of the pilot project has extended funding for an additional six months in the pilot schools. For future school gardens, FISD will plan for 18-24 months of external support.

Next steps

Whilst FISD is the first organisation to pilot this concept, other organisations have shown interest and are visiting the pilot schools with an idea to replicate this model. In 2015 FISD is facilitating site visits for interested organisations to learn more about the model.

A donor has approved funding for the scale up of the model to 10 more schools from April 2015 to December 2016.

FISD is looking into how to help schools establish income generating activities through the SMC so that they are able to continue to run the gardens after the external funding ends.



Smallholder agriculture in Zambia

Introduction

Zambia has one of the highest rates of childhood undernutrition in the world. In 2014, stunting was reportedly 40% and wasting 6%, alongside high levels of micronutrient deficiencies: 53% of school-aged children are deficient in vitamin A while 46% have iron deficiency anemia (Zambia Demographic Health Survey, 2014).

The Government of Zambia recognizes the problem of undernutrition and has committed to take steps to improve the nutrition situation. In 2011, Zambia joined the Scaling Up Nutrition Movement (SUN), which has fostered the development of a national plan for nutrition that provides a strong foundation for addressing nutrition holistically. As a part of this, the National 1000 Days Programme was developed which focuses on preventing stunting in the first 1000 days of a child's life. This programme has several components including 1) the provision of nutrition supplements (including iron, folic acid, multiple micronutrients, zinc for diarrhea) for specific vulnerable groups, 2) promotion of complementary feeding, breastfeeding, safe water and sanitation, 3) expansion of the integrated management of acute malnutrition and 4) development of nutritional sensitive activities and messages in social cash transfers and programmes.

The programme brings together five line Ministries including the Ministry of Agriculture and Cooperatives (MoAC); Ministry of Community Development, Mother, and Child Health; Ministry of Health, Ministry of Education and the Ministry of Local Government and Housing. To support this national commitment to nutrition, within the MoAC the 2015 budget has been expanded to include new budget lines to support scaling up nutrition initiatives within the Agriculture sector. Activities funded under these new lines aim to support 1) promotion of dietary diversity for pregnant and lactating mothers and 2) improving the availability of diverse, locally available and processed foods with a focus on women's empowerment¹.

While these efforts are significant and positive, maize still remains the focus of the Zambian diet and economy.

Unlocking Zambia's Agricultural Potential for Nutrition Development

William Chilufya

William Chilufya is a civil society advocate with 9 years of experience in championing pro poor development in Zambia. He is leading the Zambia Civil Society Scaling Up Nutrition Alliance (CSO-SUN Alliance) advocacy agenda in Zambia.

Although maize provides some nutrients and calories, alone it lacks the variety of nutrients essential for healthy growth and development. In order for Zambia to respond appropriately to the overall problem of undernutrition, the country needs, and has begun to, reform its agriculture policy- in particular the Farmer Input Support Programme (FISP) and the Food Reserve Agency (FRA).

Agriculture policy

The heavy reliance on maize has been fostered by Zambia's agricultural policy, particularly through the FISP, which is a national programme that seeks to improve household and national food security, incomes, and accessibility of agricultural inputs to small-scale farmers through a government subsidy. FISP also aims to build the capacity of the private sector to supply agricultural inputs. Working alongside the FISP is the FRA, a national agency, whose main purpose is to ensure national food security and income of farmers by maintaining a sustainable national strategic food reserve. The FRA also acts to stabilize the economy based on national agriculture production. Both the FISP and FRA primarily focus on maize as the countries predominant staple crop.

Agriculture policy reforms: what is needed

Since 2010, the Government has taken small steps to diversify the FISP programme to include diverse crops and livestock. Rice was added in 2010/11, and sorghum, cotton, and groundnuts were added in 2012/13 as part of the former President's push for crop diversification.

The Civil Society Scaling Up Nutrition Alliance (CSO-SUN) argues that the agriculture sector is accountable not only for producing nutritious foods, but for stimulating demand for a diversified diet. A deliberate agriculture policy that supports diversification of agriculture (increase in production of a range of vegetables, fruits and small livestock) is crucial to increase nutrition security in Zambia.

CSO-SUN proposes that FISP reforms should address and include improved storage, processing, distribution and retail systems to support the production of a range of agricultural products and the consumption of a diversified

diet. Small-holder farmers should be able to (and have access to necessary equipment) process the produce they have in order to maintain the nutrients, preserve produce, and reduce seasonal surplus and crop losses. Reforms should also address food safety risks such as aflatoxins.

Furthermore, it is recognized that gender is a fundamental component linking agriculture to improved nutrition. CSO-SUN is advocating to the Government that the National Agriculture Policy, and the FISP in particular, explicitly include improvement in women's knowledge, skills, productivity and decision making power within the households in the objectives of the policies. Additionally, CSO-SUN suggests that a targeting strategy which includes how vulnerable groups, including pregnant women and women with children under five years of age, can access FISP as these are the groups most vulnerable to undernutrition. This strategy would foster empowerment of women who continue to face discrimination and often have less access to power and resources, including those related to nutrition.



©IFAD/Siegfried Modola, Zambia, 2012

Conclusion

The CSO-SUN Alliance is willing and able to partner with the Government to support agriculture reforms and ensure that there is a clear focus on improving nutrition through agriculture, food and nutrition policy. There is great potential for stakeholders to work together to unlock the agriculture sector's potential to help address undernutrition and make Zambia more food and nutrition secure.

Original article



Angelot Gashumba, 2014

Sack gardens, Nyamagabe district, South Zone, Rwanda

A review of kitchen gardens, poultry farms and rabbit rearing aimed at diversifying the diets of Congolese refugees in Rwanda

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Background

The nutrition situation amongst Congolese people hosted in refugee camps in Rwanda is poor. A multi-agency nutrition survey conducted in Kigeme camp in 2012 reported the prevalence of global acute malnutrition (GAM) as 7.3% and severe acute malnutrition (SAM) as 1.5%. Stunting was reported as 38.6% and severe stunting at 15.1%. In response, Africa Humanitarian Action (AHA)

partnered with World Vision Rwanda (WVR) and the UN High Commissioner for Refugees (UNHCR) in August 2012 to design and implement a multi-sectoral nutrition project with the aim of reducing undernutrition amongst the refugee children in Kigeme and Kiziba camps.

WVR, UNHCR, the UN World Food Programme (WFP) and AHA collaborated to implement several complimentary interventions to address undernutrition in the two camps

including the provision of a general food ration, treatment of SAM and moderate acute malnutrition (MAM), health and nutrition education, and mother-to-mother support groups. Poultry and rabbit rearing as well as kitchen garden projects were designed to increase the dietary diversity of foods consumed by the families with children affected by SAM, MAM or with anemia (defined as hemoglobin less than 8-9.5 g/dl, or < 8 g/dl respectively as per the WHO classification).

In December 2014, at the end of the two and half year project, WVR conducted an internal qualitative evaluation. This article focuses on the results and learning from the kitchen gardens and poultry and rabbit rearing interventions.

Methods

A literature review, key informant interviews (with AHA staff, target recipients, community health workers, animators and other stakeholders in the camps) and focus group discussions (FGDs) with project recipients were conducted. A total of 13 interviews and 9 FGDs were held in Kigeme and Kiziba refugee camps¹.

Overview of interventions

Kitchen gardens

Refugee families with children with MAM, SAM or severe anemia in Kigeme and Kiziba camps were supported to practice innovative ways of producing vegetables through the use of sacks/ basins and kitchen gardens to improve dietary diversity. About 154 and 377 kitchen gardens in Kigeme and Kiziba Camps respectively were established. AHA provided cabbage, carrots, spinach, onions, celery, peppers, eggplants and amaranth seeds to the identified families. A full time agronomist provided technical support, conducted demonstration gardening sessions and worked closely with project animators (whose main role was to educate and sensitize the refugee community on the importance and management of kitchen gardens, rabbit rearing and poultry farming, including disease management) and families in the project to continually support and monitor the gardens. Families that met the criteria for the project but whom did not have cultivation space were provided fresh vegetables on a weekly basis from the demonstration gardens whenever possible.

Poultry farming

Unlike kitchen gardens that were established at the household level, a poultry farm was developed with a local refugee association in Kigeme camp. AHA provided the technical expertise in constructing poultry pens and trained the animators and association members. AHA/WVI supplied the first set of chickens, veterinary services (including medication for the chicks), chicken feed for the first year, and security guard services for the pens.

The association was comprised of 15 families (each with a SAM or MAM child) who were willing to join and participate in the association. Membership of the poultry association was closed after the initial identification and registration of members. Families identified with SAM or MAM children subsequently were enrolled for the kitchen gardens or rabbit rearing which was easier to set up on an individual level. In December 2014, the association had about 169 improved egg-laying chickens which produce an average of 90 eggs per day. Every child in the project received 2 eggs per week to eat. On average, the association saved between 60,000

RWF to 70,000 RWF (USD 85- 100) per month, which was profit from the sale of eggs (80 RWF/0.1USD per egg). The association plans to increase their savings to 1,000,000 Million RWF (1,400 USD) and then start providing small loans to association members with a minimum interest rate, so as to promote entrepreneurship and support self-reliance among the association members.

“From 2 rabbits, my rabbits increase to 86 in 3 years. These helped me in diversifying my diets and giving my household a regular source income.”

Nyirabuhoro Janine; Kiziba refugee camp

Rabbit rearing

In Kiziba camp, rabbit rearing was established for families with a MAM or SAM child as well as chronically ill children (cancer, TB and HIV patients). AHA provided materials, supported families to construct rabbit hutches and trained families on rabbit rearing and health before they received a pair (1 male and 1 female) of rabbits. The agronomist and trained animators provided regular follow-up visits. Rabbits were fed mainly on local shrubs and vegetables collected by families from the adjacent grasslands and forests. As a condition of participation in the project, each family gave back two rabbits to AHA that were then provided to other refugees to expand the intervention.

The three interventions were supported at a community level by a team of animators. Animators received both formal and on the job training on how to build and maintain kitchen gardens, rabbit and poultry hutches. There were 11 animators in each of the camps during the project. Each animator was responsible for 5- 6 villages where, on average, there were 7 to 10 households per village involved in kitchen gardens or poultry/rabbit rearing. Volunteers were used successfully in some areas to alleviate the workload of the animator.

Results

A total of 174 households were involved in one of the three interventions. Feedback from participants at the end of the project was positive. Participants reported that the kitchen gardens, poultry and rabbit rearing contributed to an increased diversity of food available and consumed at the household level. Participants interviewed also reported that they no longer sold part of their general food ration to meet



Angellot Gashumba, 2014

Poultry farming, Nyamagabe district, South Zone, Rwanda

¹ A key limitation to the internal evaluation is that it is based on qualitative results. UNHCR plans to conduct another nutrition survey in 2015.

basic non-food needs; instead they sold their extra produce, which provided them with a source of income. Some also shared their surplus produce with their neighbors.

Most of the refugees reported that they were happy to have farming activities to keep them physically and mentally active. Almost all (95%) households that had kitchen gardens, or were rearing rabbits or poultry are still maintaining them.

Challenges

There were many challenges faced by the kitchen gardens, poultry farm and rabbit rearing activities, including:

1. **Lack of materials** such as plastic sheeting and sticks for protecting vegetable gardens and watering cans. Watering cans allow for controlled watering of young plants, without which the force of water can easily drown many plants. These materials were not planned and budgeted for; however, the refugees improvised using old mosquito nets to “fence” the kitchen gardens and some improvised watering cans by drilling holes in available containers.
2. **Stealing of rabbits and chickens** in Kigeme and Kiziba camp was reported. This was discussed with the community and camp leaders and it was agreed that stolen animals were to be reimbursed by the identified perpetrators. Rabbits were kept at household level throughout the camps and individuals were responsible for guarding them. The employment of a full time night guard for the association’s chickens helped minimize theft. During the day, members had a roster for taking care of the chickens.
3. **Limited availability of land for farming activities.** The densely populated refugee camps have limited available land for farming and often land is taken for community projects. In the future this could be addressed by using more sacks or basins to plant in which are more portable.

“In addition to what I eat almost daily, every 2 weeks I sell my vegetables and get 10,000 RWF (14 USD) which I use to meet other household needs. Although there are no vegetables given in the general ration, I enjoy green vegetables in most of my meals.”

A refugee from Kigeme camp

4. **Managing costs of chicken feeds** for the poultry association. WVR provided the funding for feeds for the first year to take the project through start-up. However when funding stopped, the association had to use their income to purchase feed (approximately 10USD/day) though this still left a profit of 85-100 USD. The AHA agronomist is advocating with the government for feed (as they sometimes provide feed to such associations).
5. **Management issues.** Two initial associations that were established for poultry and rabbit rearing in 2012 suffered internal management challenges that combined with high expectations of the members, led to their collapse.
6. **Limited number of animators and heavy use of volunteers.** 11 animators were hired for the project with the idea that each animator could manage 7-10 households; however, animators felt this was too much. To support the animators, volunteers were identified in some of the villages. However there is significant turnover of volunteers as they often leave suddenly as they identify other sources of income.

Lessons learnt

It is important to consider the following:

1. That the expectations of association members are managed well at the beginning of the project.
2. The types and varieties of seeds and pesticides selected for kitchen gardens should take into account availability and viability of seeds produced from the resulting crop to reduce the number of distributions.
3. How individuals can maintain the project (rabbits, poultry, gardens) once the external funding support ends. One suggestion for future kitchen garden projects is to form associations of individuals to whom trainings, support, and encouragement can be provided to establish a savings account to be used to run and maintain the costs of the gardens.
4. How interventions can be integrated for maximum benefit, such as integrating kitchen gardening with rabbits rearing so that manure can be more accessible to the kitchen gardens.
5. How cultural preferences of project participants can be taken into account. Refugees from certain religious backgrounds do not eat rabbits or chicken.
6. On the job training is important and instrumental in knowledge sharing. Funding for formal (class-based) training for animators was limited however on-the-farm learning sessions were highly valued and effective in building knowledge and confidence.
7. The need to identify a mechanism for accessing technical support throughout the project. Regular technical support visits should be encouraged as well as a mechanism for discussing technical issues such as a nutrition technical working group, in addition to the general monthly camp coordination meeting.
8. Ensuring multi-sector collaboration and coordination is crucial. To implement the project, AHA engaged with the shelter, sanitation and water departments and services to understand construction plans and water cuts as these had impact on the project interventions.

Conclusion

All recipients and implementing partners interviewed agreed that the activities were very relevant and allowed households to diversify their diets. Although the main funding for the programme has ended, AHA continues to provide limited support to families as they are still implementing other interventions in the camp. While quantitative results are still pending, the positive results from this qualitative study are being shared with partners and donors to advocate for integration of these activities into other refugee camps in Rwanda.

Angelot Gashumba, 2014



Vegetable gardens in Kiziba refugee camp, Rwanda

The power of WASH: why sanitation matters for nutrition

Summary of Chapter 3 of the 2014-2015 Global Food Policy Report by Dean Spears and Lawrence Haddad, available on IFPRI website: www.ifpri.org



Water, sanitation, and hygiene (WASH) can have a profound effect on health and nutrition. In 2014, WASH and nutrition moved to the forefront of the development policy agenda and ending open defecation (OD) is now near the top of the world's post-2015 Sustainable Development Goals. The authors cite observational evidence of a link between the dramatic reduction in OD rates in Bangladesh (from 34% in 1990 to 2.5% in 2012) and the improvement in stunting in Bangladesh over a similar period. However, with the exception of a study in Mali, impact evaluations, have not shown much evidence

of WASH improving nutrition outcomes. This paper suggests that because the interventions are poor in changing behaviour around OD, the potential improvement in nutritional status is reduced. The authors call for investments in research to better understand how to change behaviour and promote latrine use, especially in societies where OD is widespread and latrine use is resisted. The authors also state that governance arrangements and state capacities may limit the effectiveness of a convergence of WASH and nutritional programming at national levels.

Reframing Undernutrition: Faecally-Transmitted Infections and the 5 As

Summary of IDS Working Paper 450 by Robert Chambers and Gregor von Medeazza, G. Full article available at: <http://www.ids.ac.uk>

Levels of undernutrition persist in much of Asia, despite many food security initiatives and the growth of Asian economies. It is increasingly suggested that much of this so-called 'Asian enigma' can now be explained by the high prevalence of open defecation (OD) combined with population density. The authors of this paper suggest that there remains a widespread 'blind spot' in the understanding of how OD and child growth are linked. The dominant focus on diarrhoeal diseases has led to the relative neglect of many other debilitating faecally transmitted infections (FTIs) including environmental enteropathy (EE), other intestinal infections, and parasites. These are harder to measure but together, may affect nutrition outcomes much more.

How OD, FTIs, poverty and undernutrition reinforce each other is illustrated by looking at the case of India, which has about 60 per cent of the OD in the world, around a third of the world's undernourished child population, and has approximately a third of its people living in poverty.

The authors propose that how undernutrition is perceived, described and analysed should be reframed to include two concepts: the FTIs and the '5 As'. The first two

As – 'Availability' and 'Access', are about food intake. The last three As – 'Absorption', 'Antibodies' and 'Allopathogens' – are about what happens inside the body. This will have implications for research, training, and policy and practice.



©IFAD/Susan Beccio, India, 2014



Davy Adams/GOAL, Northern Syria, 2013.

ENNs Field Exchange 48: Issue summary

Issue 48 highlights programming experiences and learning from the nutrition response to the Syrian crisis.

Approximately two years after the outbreak of civil war in Syria in April 2011, the ENN compiled a special issue of its publication 'Field Exchange' focused on the nutrition response to the ensuing crisis in the region. Following a year-long process of interviews with key actors working in the region and regional visits, Field Exchange issue 48 was published in November 2014. The publication includes 54 articles, covering a wide range of programming experiences and learning from Syria, Jordan, Lebanon, Southern Turkey and Iraq, on themes such as scale up of treatment of acute malnutrition, support for infant and young child feeding (IYCF), food vouchers and cash programming. The publication provides a unique overview of programming experiences in the region as well as insights into the institutional architecture and challenges involved in supporting programming.

The ENN present their observations of the nutrition response developed during their extensive research for this publication in a 'views' article. The authors recognise the impressive programme of support displayed by the Governments of Jordan, Lebanon, Turkey, Egypt and Iraq which, with the support of the humanitarian community, had hosted over three million refugees by September 2014. It is widely recognized that the multi-sectoral and multi-stakeholder response to the Syria emergency averted a nutrition and health crisis. However, along with many programme successes and innovation, the authors identify some key challenges in the nutrition response to the Syria crisis, including:

- An inappropriate emphasis on acute malnutrition when other forms of malnutrition, e.g. anaemia and stunting, were more prevalent.
- Flawed nutrition surveys that suggested the nutrition situation was worse than it was.
- An IYCF response dominated by breastfeeding support but which did not take into account the low breastfeeding rates and widespread use of and demand for infant formula. Appropriate support for formula fed infants was lacking along with limited support for complementary food access.
- Inadequate attention to those with nutrition related non-communicable diseases (NCDs) such as high blood pressure and diabetes, despite the high prevalence of these conditions pre-crisis.
- Lack of nutrition sector input into planning for cash programming.
- Relegation of nutrition to sub-working groups of other sector coordination mechanisms across the region.

The Middle East emergency has, and continues to be, uniquely challenging in its scale and complexity. In spite of the extraordinary response, nutrition vulnerabilities remained poorly analysed and inadequately addressed and, indeed, such vulnerabilities may well worsen as the availability of resources for the Syria crisis decline. The nutrition community – both emergency and development – is needed as much now as it was in the early stages of the crisis.

Field Exchange issue 48 is freely available online www.ennonline.net/fex



Technical Meeting on Nutrition in Oxford, UK (October 2014): Meeting summary

The first Technical Meeting on Nutrition (TMN) was convened by the ENN in Oxford from October 7th to 9th 2014 and was attended by around 120 delegates comprising country representatives, United Nations agencies, non-governmental organisations, donors, academics and independents from nutrition and other sectors. The TMN aimed to provide a forum to address specific technical, programming and policy issues relevant to nutrition

in emergencies and high burden contexts, share and appraise research, discuss on-going challenges, and provide 'space' for informal technical exchange.

Plenary sessions covered topics such as the current 'nutrition architecture', the links between nutrition and water, sanitation and hygiene (WASH); cash transfers; the nutrition response to the Syria emergency; links between wasting and stunting; and national nutrition policy and programming. Three parallel sessions on severe acute malnutrition (SAM) allowed time for detailed discussion of important technical issues and market place sessions, a debate and lunchtime sessions provided more opportunities for participation and sharing.

Key themes and learning that emerged over the three days included:

- No country is free from malnutrition; all countries face burdens of under nutrition and overweight/obesity and these often co-exist.
- Nutrition-sensitive spending needs to increase and there is a need for more solid evidence (both for WASH and cash) and a greater understanding of the 'how to'. In the meantime, we need to take something of a 'leap of faith' in nutrition sensitive programming.
- Common messaging would considerably help in our discussions with other sectors.
- Nutrition specific work requires a more 'holistic' approach, with less division between the different forms of undernutrition (e.g. stunting and wasting).
- There is a potential new window of opportunity in the adolescence years for linear catch-up growth and more evidence is required in this area.
- We need more constructive engagement with the private sector.

Three fundamental 'needs' to effect better nutrition outcomes were repeatedly raised during the meeting; strengthened Leadership, Coordination and Accountability. The ENN hopes that the TMN will be established as a regular forum where technical, research, programming and policy issues related to nutrition can be discussed.

Read more at www.enonline.net/tmn2014report

Research on Food Assistance for Nutritional Impact (REFANI): Literature Review

REFANI is a 3-year research project funded by the Department of International Development (DFID/UKAID) of the United Kingdom and implemented by ACF, Concern Worldwide, University College London (UCL) and the ENN. REFANI examines the impact of cash and voucher-based food assistance on nutrition outcomes with the aim of creating an evidence base for high-impact and cost-effective mechanisms in the prevention of acute malnutrition in emergencies.



The REFANI literature review identifies existing evidence on the use of Cash Transfer Programmes (CTPs) and the impact of CTPs on acute malnutrition in humanitarian contexts. The review highlights the evidence base for traditional food-based interventions and CTPs and identifies key gaps that remain.

In particular, the review finds that a greater understanding of how (i.e. the mechanisms through which) CTPs work is needed as well as more evidence on a range of CTP design features (e.g. timing, duration, amount and frequency), modalities (e.g. cash or vouchers), and recipient targeting criteria. Finally, very little is known about the sustainability of such programmes and their cost effectiveness, especially post-intervention. These findings lay the groundwork for REFANI's forthcoming Global Research Framework.

Read more at www.enonline.net/ourwork/research/refani

Micronutrient Initiative



A mother feeds her child fortified porridge in Bolivia

WFP/Dina Elkassaby



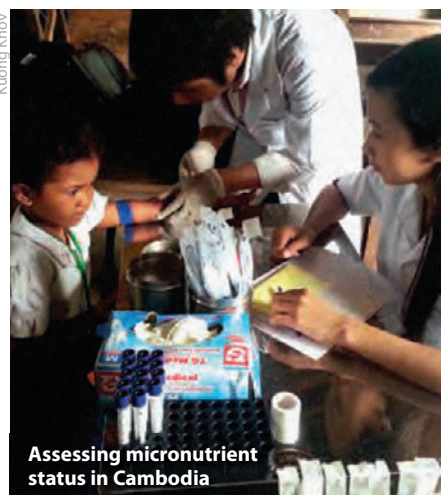
Kindergarten students receive nutritional support in Syria

Beatriz Perez Bemabe/Mali, 2014



SAM treatment coverage in Mali

Kuonq Khov



Assessing micronutrient status in Cambodia



SUN Movement Communities of Practice

Scaling Up Nutrition, or SUN, is a movement that unites people – from governments, civil society, the United Nations, donors, businesses and researchers – in a collective effort to improve nutrition.

54 countries have multi-stakeholder efforts to combat malnutrition, built on a strong foundation of partnership and collaboration. The SUN Movement has mobilized national leaders to prioritize efforts to address malnutrition, working across sectors with nutrition specific interventions and nutrition sensitive approaches.

Since April 2014, four *Communities of Practice (CoP)* have emerged as a method for ensuring that countries can access technical support more easily and share best practices. Joining these thematic communities is voluntary, they exist purely to promote learning and sharing in key areas for scaling up nutrition actions.

Community of Practice 1: Planning, Costing, Implementing and Financing Multisectoral Actions for Improved Nutrition.

This CoP focuses on costing national plans for nutrition in order to guide coordinated efforts by stakeholders and to mobilize the required resources to address gaps and sustain results. 2015 priorities include:

- Producing a clear "how-to" cost guide for nutrition-sensitive actions
- Tracking nutrition allocations in national budgets
- Mobilising more money for nutrition and leveraging more nutrition for the money currently being spent.

Community of Practice 2: Social Mobilisation, Advocacy and Communication (SMAC) for Scaling up Nutrition.

This CP focuses on efforts being made by governments and supporting partners to mobilise societies to play their part in working together for improved nutrition, secure and maintain high level political commitment, and ensure that evidence and experience of best practice is shared. 2015 priorities include:

- Creation of an online repository of SMAC resources and tools
- Creating a process to help countries discuss and articulate their needs and access support
- Leveraging existing opportunities to bring together practitioners to share knowledge and lessons learned.

Community of Practice 3: The Reliable Monitoring of Progress, Evaluation of Outcomes and Demonstration of Nutrition Results:

This CoP aims to support the establishment and use of information platforms at national and sub-national levels. 2015 priorities include:

- Stakeholder mapping and action monitoring
- Data for decision-making and accountability, in synergy with the Global Nutrition Report, National Information Platforms of Nutrition (NIPN), and the WHO/UNICEF Technical Advisory Group on Nutrition Monitoring
- Developing guidance around the Common Results Frameworks

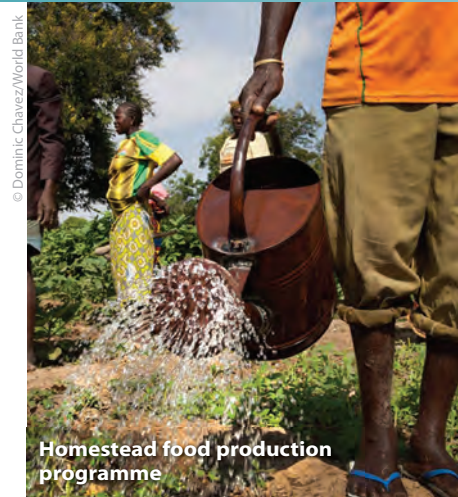
Community of Practice 4: Functional Capacities for Coordinated and Effective Scaling Up Nutrition.

SUN countries are increasingly expressing the need to optimise the functioning of multi-stakeholder mechanisms and need to build the capacity of groups and individuals to function effectively across sectors, among multiple stakeholders and between many levels of government.

2015 priorities include:

- Providing support to countries in their understanding, prevention and management of conflict of interest
- Provide guidance to SUN countries in the area of functional capacities to scale up nutrition in action
- Identifying resources to support functional capacity gaps in countries.

These SUN Movement CoPs are generating a valuable source of knowledge and ideas that are helping to unblock bottlenecks to the scaling up of nutrition. To find out more visit <http://scalingupnutrition.org/>



Homestead food production programme



Fish, a source of protein in Masumba



Model farmers in Fada N'Gourma



Locally produced supplementary food, Pakistan



The Integrated Food Security Phase Classification – New Nutrition Phase

The Integrated Food Security Phase Classification (IPC) is a set of tools that aims to classify the severity and magnitude of food insecurity. The IPC provides decision makers with a rigorous analysis of food insecurity that allows comparisons of situations across countries and over time, along with objectives for response.

Although nutrition elements are integrated within the IPC food insecurity analysis, it currently does not incorporate a full nutrition situation overview that considers malnutrition caused by factors other than food insecurity. To fill this gap, the IPC Global Partnership of 10 agencies is now developing a set of IPC Nutrition Classification tools and procedures. This will include the analysis of malnutrition caused by non-food related factors, such as inadequate caring practices and disease, as well as food related factors, to facilitate better targeting of interventions, and better integration of humanitarian and development and food and nutrition security response.

A prototype has been developed and pilots and technical consultations are currently on-going. Version 1.0 of the Nutrition Classification is expected at the beginning of 2016.

To find out more and to subscribe to the IPC newsletter visit <http://www.ipcinfo.org/>



Marjika van Klintem, ACF, Bangladesh

Focus group discussions on feeding practices, Enayetpur, Bangladesh

WFP/Donatig Ledu, CAR, 2014

A school feeding programme in Central African Republic





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