Malnutrition in emergencies: The framing of nutrition concerns in the humanitarian appeals process, 1992 to 2009

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Abstract

This paper examines how nutrition has been used to raise humanitarian relief resources through the United Nations appeals process, from 1992 to early 2009. Recent calls for "nutrition safety nets" as a response to the world food price crisis reflect a growing recognition of nutrition as a key element in crisis management, not simply as a metric of how bad things have become. The evolution in thinking about the role of nutrition in emergency programming is reflected in changes in how nutrition has been conceptualized and presented in the consolidated appeals process. Based on a desk review, supported by key informant interviews, the paper highlights important changes that include an increasing distinction that separates nutrition from food, water, and health; the importance of synergies across sectors; increased emphasis on "essential packages" of inputs and services versus stand-alone activities; the importance of technical rigor in food and nutrition assessment and surveys; the need for technical competency and capacity in the design and management of nutrition interventions; and the importance of planning for long-term change even in delivering a short-term response. There has also been growing emphasis on specificity in objectives — a trend linked to demand for more accountability across the humanitarian system. Enhanced emergency preparedness will require further capacity building and improved systems for surveillance and data management. Without more systematic, targeted attention to pre-crisis malnutrition, the resources needed to tackle nutrition problems during emergencies will continue to grow.

Key words: Consolidated appeals process, emergency nutrition, United Nations, wasting

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Introduction

The United Nations Comprehensive Framework for Action, formulated during 2008 in response to the global price crisis, made explicit reference to the importance of "nutrition interventions and other safety nets" to address the immediate needs of the world's most affected and vulnerable people [1]. This framing of nutrition as a key element of the global response was unusual. It presented nutrition not just as a crisis outcome (a metric of failure as presented through the anthropometry of children), but as a multifaceted contributor to the solution. It argued that short-term activities were needed to address immediate needs — treatment and recovery interventions to resolve life-threatening conditions — but also longer-term attention to prevention, delivery of services, behavior change promotion, and enhanced dietary security. In other words, a complex global emergency was framed as having serious nutritional impacts that should be redressed in large part through serious investments in the treatment, rehabilitation, and prevention of undernutrition.

Such a nuanced treatment of nutrition reflects many of the changes that have come about in framing nutrition in the consolidated appeals process since the early 1990s, including an increasing distinction that separates nutrition from food, water, and health; the importance of mutual support across all sectors if the goals of each sector are to be achieved; the importance of technical rigor in nutrition assessments and surveys; the need for technical competency and human capacity in the design and management of nutrition interventions; and the essential complementarity of short-term actions with long-term change.

Although "nutrition" has been part of emergency relief as long there has been humanitarian action, it has taken many forms, been interpreted in diverse ways, and been used to represent varied camps of thought. For example, the terms "starvation" and "famine" were code in the 1970s and 1980s for extremes of undernutrition linked to excess mortality (e.g., Ravallion [2]),

and emergency nutrition was often couched in terms of how to get nutrients "into hungry people efficiently" [3]. Thus, when the consolidated appeals process was launched in 1992, nutrition was not granted formal "sector" status globally, distinct from health or food aid. Over time that has changed, with more countries presenting nutrition as a priority sector, theme, or activity within their appeals. The growing visibility of nutrition in the consolidated appeals process has (to some extent) brought with it more resources for nutrition programming and (to a large extent) raised expectations of what nutrition programming can achieve in the context of major emergencies. Is the nutrition community in a position to deliver?

This paper considers the role of nutrition in the evolution of humanitarian appeals from 1992 to early 2009.* It is based on an extensive desk review of consolidated appeals process documents covering that period, coupled with consideration of other key documents in the humanitarian literature, and complemented by interviews with key players in the international (emergency) nutrition community. The paper highlights areas where further work to strengthen "emergency nutrition" could have high payoffs both in the appeals process and in investment strategies for development more broadly.

Nutrition in the United Nations humanitarian reform process

According to the United Nations Office for the Coordination of Humanitarian Affairs, "humanitarian action continues to become more effective, professional and efficient" [4]. That upbeat assessment echoed a review from 2004 of the effectiveness of the international community's responses to health and nutrition problems in complex emergencies, which concluded that "major advances" had been made since the mid-1990s [5]. Recognizing gains made in how we deal with emergency nutrition is important. Although there are still many areas needing improvement, and ways in which the whole business of emergency response can and should be changed (see Maxwell et al. [6]), agencies and governments are generally doing a better job of saving lives today than in the past. How is that?

A reduction in case-fatality rates for severely undernourished children has been achieved through more timely, tailored responses to specific nutrition and health risks, supported by improved mobilization of resources and greater collaboration among humanitarian actors. Higher standards of products used, services delivered, professional behaviors, and institutional capacity have all played a part. The 21st century has seen the development of new home fortificants, lipid-based supplements, standardized methods for assessment and survey, novel fortified-blended foods, community-based treatment protocols, the formalization of zinc in diarrhea control, bulk fortification of cereal food aid, deworming, new commitments to promoting behavior change even during crises, and more. In other words, novel "solutions" to nutrition problems have emerged in tandem with increased harmonization of action among institutions that deliver them, and (importantly) improved communication to donors of what the problems and solutions are.

Each of these elements of change is reflected in the still-evolving appeals process — in the national dialogue that underpins country appeals, in the assessments of need, and in global debates on standards. Various reforms to the consolidated appeals process have been important in this regard. Before 1992, the responses to emergencies falling within the mandate and competency of a single United Nations agency were coordinated by that one agency [7].** However, it came to be recognized that few crises could be classified as single-agency crises and that ad hoc interagency coordinating mechanisms were not efficient ways to respond quickly to rapidly emerging, dynamic conditions. Thus, building on Resolution 46/182 of December 1991, the United Nations General Assembly in 1992 mandated that *consolidated appeals* should be prepared for any emergency requiring an interagency response [8]. The process was to be coordinated by a new Inter-Agency Standing Committee and facilitated by a new Emergency Relief Coordinator, the latter supported by a new Department of Humanitarian Affairs (DHA) — later the Office for Coordination of Humanitarian Affairs (OCHA).

The introduction of consolidated appeals brought about a degree of standardization and conceptual rigor to what had been a competitive process that often pitted nongovernmental organizations (NGOs), bilateral agencies, and United Nations organizations against each other in a scramble for funds. Agencies were now expected to present a combined proposal for emergency funding, allowing for coordinated resources to flow in more timely fashion. Some funding was to be pooled in a new Central Emergency Revolving Fund (CERF) that would remove some of the geopolitical nature of donor resource allocations.

That said, in 1992 there was no mention at all of

* The paper draws heavily on a report prepared for the United Nations' Inter-Agency Standing Committee's Global Cluster on Nutrition (April 2009). The guidance and expert critiques of Leah Richardson, Helen Young, Daniel Maxwell, Irwin Rosenberg, and Katherine Sadler are all gratefully acknowledged.

** In some cases, interagency memoranda of understanding (such as those between UNICEF and the World Food Programme [WFP] updated periodically since the 1970s) allowed for some degree of shared coordination, based on comparative advantage on the ground and clear understanding of who should do what when.

nutrition among the 27 appeals responding to natural disasters (which generated a total of US$257.4 million in funds); indeed, little detail was provided on donations other than broad categories such as "cash," "foodstuffs," or "relief materials." In part, this was because non–United Nations organizations (such as the International Committee of the Red Cross, the International Organization for Migration [IOM], and NGOs that often work a lot in the nutrition domain) were not heavily engaged in the process at the outset.

From 1992 to 1996, a total of 68 interagency consolidated appeals were launched under DHA auspices, with requests totaling US$14.2 billion.* Roughly 73% of the appeals (US$10.4 billion) were funded, mainly for United Nations activity. In 1997, a reform package was introduced that moved to consolidate 30 or more United Nations departments, programs, and funds into major sectoral areas of activity: peace and security, economic and social affairs, development, and humanitarian affairs — the latter overseen by OCHA, established in 1997, and an Executive Committee for Humanitarian Affairs set up in 1999. At this point there was a renewed call for greater involvement of national agencies and NGOs. Newly formed United Nations Country Teams (UNCTs) helped reinforce the idea that "less fragmentation of action on the ground" was a core principle of the consolidated appeals process, and greater in-country dialogue on priorities was required with non–United Nations players. By 2007, 61% of NGO requests through consolidated appeals were funded — surpassing the percentage funded in any previous year. In 2008, a total of 188 aid agencies were involved in the consolidated appeals for 24 countries, a considerable expansion of participation and stakeholdership.

The end of the 1990s was also marked by NGO-led activities aimed at professionalizing humanitarian action, such as the SPHERE initiative and the Secretary General's push for an integration of human rights into all aspects of United Nations activity — including humanitarian response [9]. The SPHERE standards helped establish consensus benchmarks for assessing needs and measuring effectiveness of action, while the human rights agenda led to UNICEF's Core Corporate Commitments in 2000, which were transformed into Core Commitments for Children in Emergencies, covering all the broad sectors that make up the consolidated appeals processes, including nutrition [10]. Specifically, the commitments required UNICEF to provide therapeutic and supplementary feeding (as necessary) within the first 8 weeks of a crisis, as well as establishing effective nutritional surveillance.

The latter was an important institutional commitment, given that calls from the donors for improved coordination on the ground were getting louder, and calls for more transparency in the consolidated appeals process were equally loud from the NGO community. Indeed, an external review of the consolidated appeals process in 2001/02, commissioned by OCHA, identified serious weaknesses in assessment and reporting and encouraged more senior United Nations management involvement as well as better country-level ownership. Thus, in April 2002, the Inter-Agency Standing Committee recommended further strengthening the consolidated appeals process, including using the consolidated appeals process as an information and advocacy tool, and promoting greater involvement of nontraditional partners in assessments.

Unfortunately, few substantive changes happened in the years following the September 2001 terrorist attacks (due at least in part to a global shift of attention to security issues and the focus on Iraq and Afghanistan as touchstones of a new geopolitical *realpolitik*). As such, it was not until 2005 that a new impetus for humanitarian reform was put in motion. The Secretary General's report *In Larger Freedom* called (again) for more predictable and transparent humanitarian financing, strengthened humanitarian coordination, and investments in response capacity [11]. A high-level Humanitarian Response Review was initiated to better understand the capabilities of the United Nations, the Red Cross/Crescent movement, IOM, and NGOs. That report recommended further strengthening operational coordination, increased predictability in the level and effective disbursement of needed resources, and strengthened needs and impact assessments [12]. Importantly, that review argued that "the information presented on… nutrition… reveals an unclear mix of capacity and a lack of clearly defined approaches to the utilization of the established service resources. This translates into shortfalls in the provision of assistance and the treatment of the sector, in primarily responsive terms, on the part of the smaller agencies." In other words, it highlighted a lack of clarity on goals, responsibilities, and mandates that was leading to constrained funding for important nutrition activity.

An important response to this defined deficiency was the creation in 2005 of a "nutrition cluster" aimed at improving the predictability, timeliness, and effectiveness of the comprehensive nutrition response to humanitarian crises. In 2006, an appeal was launched for US$5.4 million to support the nutrition cluster under the lead of UNICEF [13]. The nutrition cluster's priorities were coordination of actions among players and across sectors to maximize nutrition impacts; capacity building on nutrition in emergencies, both within UNICEF and across all stakeholders involved in nutrition; the setting of agreed thresholds for action and standards for activity; improving data collection and management; and enhancing the availability (supply) of products and materials needed in effective

* The 1993 consolidated appeal for the former Yugoslavia alone sought around US$1 billion in funding.

nutrition programming. Very quickly it was suggested that there were signs that the cluster approach had "resulted in some systemic improvement in coordinated humanitarian response" [14] and that there was "clear evidence" that clusters were supportive of an improved appeals process [15].

An important development, which was arguably facilitated by the existence of the clusters, was the introduction of funding prioritization. Historically, consolidated appeals processes presented long shopping lists of largely undifferentiated interventions, with little prioritization to help donors allocate limited resources. However, after 2008 more consolidated appeals sought to rank proposals according to their importance for meeting specific objectives. That process was important in promoting deeper dialogue over potentially competing funding requests and in encouraging attention to sectoral activities that may not have been a donor priority.

The next sections offer more detail on how the treatment of nutrition in the consolidated appeals process changed over time.

Nutrition in the consolidated appeals process: Broad patterns

Funding trends

Humanitarian resources have ballooned since the early 1990s, rising from US$2.5 billion (less than 3% of total overseas development assistance) to around US$7 billion in 2007, or roughly 6.5% of overseas development assistance (Organization for Economic Cooperation and Development data). The percentage of overseas development assistance going to "fragile states" (including Afghanistan, the Democratic Republic of the Congo, and Sudan) also rose, from US$7 billion in 2000 to roughly US$20 billion in 2007. The increases reflected a rise in complex emergencies in the aftermath of the Cold War, a rise in the frequency and intensity of environmental disasters, growing donor sensitivity to humanitarian issues after the Rwandan genocide and Great Lakes crisis and the political and humanitarian debacle of the Balkans (post-Yugoslavia), and growing donor commitments to increasing overseas development assistance after agreement on the Millennium Development Goals (2000) and the Monterey Consensus (2002).

Importantly, while humanitarian resources increased as a share of total overseas development assistance, this increase also represented a growing share of a larger pot: total (net) overseas development assistance rose from around US$50 billion in the mid-1990s to exceed US$100 billion in 2007 [16]. What is more, a large share of overseas development assistance after 2000 was accounted for in "nonprogrammable" aid — mainly debt relief, administration costs, and costs to accommodate refugees within a donor's own country. Extremely large grants in the form of debt relief were made to Iraq and Nigeria after 2002, which masked a lack of increases in other "programmable aid."

Unfortunately, it is not easy to specify how much of humanitarian aid has been dedicated to nutrition compared with food, health, or even multisector activities. For example, the 2006 consolidated appeal for the Democratic Republic of the Congo appeals for US$251 million for "food security and nutrition" [17], while Côte d'Ivoire, Nepal, and the West Africa regional appeal all include nutrition with requests relating to "agriculture/food security" in the 2008 midyear review [18]. By contrast, "health and nutrition" were lumped together in the consolidated appeal for the Central African Republic in 2006, and the 2000 appeal from the Democratic People's Republic of Korea included US$3.7 million for "nutrition rehabilitation, growth monitoring and micro-nutrient control," all under the "health sector" rubric (United Nations Office for the Coordination of Humanitarian Affairs [19], table E).

Some appeals have listed nutrition as an explicit sector and/or budget line item. In 1996, only one country (Iraq) highlighted nutrition as a distinct sector of activity requiring specific funding; five other country appeals did not even mention nutrition, while another eight included nutrition under the rubric of health or food security. By 2000, Burundi and the Democratic Republic of the Congo brought a sectoral focus to bear on nutrition, while eight consolidated appeals had no explicit mention of nutrition in the summaries or sectoral presentation of funding needs. A total of 14 countries listed nutrition with health, and one more (Indonesia) linked nutrition with food aid.

Things were different by 2008. That year's midyear review of the global consolidated appeals process listed nutrition as a separate "sector" at the global level, on a par with education, health, and water. At the country level, nine consolidated appeals presented nutrition as a separate "sector" or "cluster" in their summary of requirements (compared with nine consolidated appeals that made no explicit reference to nutrition). For example, the Central African Republic's 2008 midyear review noted that its "nutrition" sector appeal was funded at the 12% level (by July 2008). Similarly, during 2008, Chad, the Democratic Republic of the Congo, and Somalia all reported on funding levels for nutrition, whereas in 2009 Sri Lanka listed nutrition as a free-standing sector for its country appeal.

Thus, although nutrition has become more visible in the presentation of appeals over time, it continues to be transient as a classification — sometimes standing alone, sometimes being subsumed under other sectors, sometimes remaining in the background as a series of activities that are not clearly grouped into a single sector.

The intent of nutrition programming in emergencies

The goals defined for nutrition actions in country appeals have evolved in several ways, becoming more precise in terms of problem analysis and in making the case for action; refocused away from relief (treatment) toward a combination of treatment and prevention; more complex, shifting from "single-shot" interventions toward more integrated, comprehensive packages of intervention; and paying more attention to data collection, surveillance systems, and measurement of impact. Each of these is considered below.

Making the case for nutrition intervention

The technical presentation of nutrition issues in consolidated appeals has matured over time, particularly since 2000. In the 1990s, "malnutrition" was a broad catchall phrase that conflated concerns about food security, agricultural supply, sickness, and the risk of death — and typically allowed for an absence of specificity about the specific problem and about solutions proposed. Indeed, many early documents contain a duality — on the one hand, presenting "malnutrition" as a condition deriving from a lack of food (e.g., Angola's consolidated appeal of 1996 states that "populations that have already benefitted from humanitarian assistance could see their nutritional status deteriorate once again if sustained agricultural production is not restarted soon" [20]), while on the other hand, presenting "malnutrition" as a problem to be treated by means of health interventions (e.g., the Congo's 1997 appeal for funds to re-establish "basic health care (in particular immunisation and essential drugs to ensure the prevention of… malnutrition)" [21].

Overly broad use of the term "malnutrition" changed as understanding spread that specificity in presentation of data on nutrition offered a more credible ("scientific") basis for demonstrating to donors that humanitarian conditions were particularly bad. The word "starvation" was still being used in some appeals in the early 2000s but since then it has mostly disappeared to be replaced by more technical terms relating to severe acute malnutrition and mortality risks. "Famine" was relatively common in the early 1990s, but that word has gradually faded into the background recently. "Hunger" still makes periodic appearances, as in Iraq's appeal of 2008, usually as an advocacy term that resonates with a nontechnical donor audience.* Use of the term "nutritional crisis" has become more common, particularly since the Niger emergency of 2004/05, when a clearer distinction became apparent between so-called food crises or complex emergencies and crises of nutrition, the latter driven as much by disease, escalating food prices, or loss of income or livelihoods as by traditional environmental shocks or conflict.

This shift toward technical precision has been a welcome development, because it has led to recognition of the necessity of collecting better data to understand the nature of humanitarian threats and impacts. That said, the more widespread use of nutrition information to make the case for intervention opened a Pandora's box of inaccurate or misleading terminology. For example, in 1996, Somalia reported that "severe malnutrition among young children at one time exceeded 50 percent," but the term used was not defined nor compared with either baseline or international benchmarks [22].

Although some of these statements can be ascribed to language and translation difficulties, they are at best confusing and at worst prone to misinterpretation. Use of nutrition measures clearly helped consolidated appeal writers make their case — that humanitarian funding was urgently needed [23]; but it also became clear that standardization of terms and reference points (thresholds) was needed if appropriate decisions were to be made.

Reference points are important in assessing severity in any crisis, but they are crucial if donors are to compare need across countries. As argued by one NGO focused on humanitarian crises, "one of the greatest weaknesses in the current humanitarian system is the absence of a homogenously recognized means of determining overall global needs — and criteria on how to distribute aid equitably among crises" [24]. In Afghanistan, for instance, the 2009 appeal** reported "extraordinarily high" prevalence rates of underweight among children — 40% among children under 5 years of age — but that rate was lower than those in other countries such as Timor-Leste (49%) [25]. While not diminishing the seriousness of the situation in Afghanistan, was its rate "extraordinary"? And how would a donor tell without being able to compare like situations with like? This is not to downplay the seriousness of the situation in any one country setting, but merely to point out that proclamations of "severity of malnutrition" should be set in context and that donors need more information to be able to compare across countries, not just across sectors of need.

That said, the cases of egregious misuse of terms and misrepresentation of nutrition data have declined in consolidated appeals since 2000, as terms, thresholds, and metrics have become increasingly standardized across the international community. The role of the nutrition cluster in this regard has been important; building on the SPHERE and SMART activities, the cluster has helped in formulating guidelines for

* United Nations Office for the Coordination of Humanitarian Affairs. Consolidated Appeal for Iraq. New York: United Nations, 2008.

** United Nations Office for the Coordination of Humanitarian Affairs. Afghanistan Humanitarian Action Plan, 2009. New York: United Nations, 2009.

preparation of consolidated appeals and in developing training, assessment, and analytical tools. There have also been many agency-specific attempts to enhance training of staff and documentation of their own activities in nutrition, including how to define nutrition problems and make a convincing case for intervention. An array of training manuals, guides, and protocols has been produced, intended for the use of both nutrition professionals and non-nutritionists in the field [26-28]. Yet, more standardization of terminology is still needed.

Objectives: From treatment to treatment-with-prevention

An important aspect of making the case for intervention relates to how nutrition goals are defined. Early consolidated appeals focused on a narrow set of hierarchical goals. The over-riding imperative of most humanitarian action was saving lives. However, given that much mortality in emergencies can be ascribed to malnutrition-mediated diseases, it has been argued that objectives centered on public health "lie at the heart of humanitarian activities" [24]. Thus, many consolidated appeals focus on "stabilizing" the nutritional situation by seeking to "combat high malnutrition" or, as with the Great Lakes appeal of 1997, to "maintain rates of mortality, morbidity and malnutrition within regionally acceptable norms" [29]. Once stabilized, a *reduction* in undernutrition tends to be the next goal for many consolidated appeals. For example, Iraq's (2009) consolidated appeal took a forward-looking perspective with its goal of not only "improving the nutrition" of children, but also contributing to securing "a well-balanced diet."*

Thus, over time, there has been an increasing emphasis on the specificity of objectives — a trend linked to demands for more accountability across the system, in part by paying more attention to the impacts of interventions — more on that below — and a realization that although therapeutic care and nutritional rehabilitation are essential to saving lives in crises, many emergencies extend for many years. This means that attention to treatment of moderate (and even so-called "mild') cases of undernutrition and prevention is equally essential to meeting nutritional goals. Moderate malnutrition can itself be a factor in higher mortality in emergencies, because a much larger share of the affected population is typically moderately rather than acutely malnourished, and because when micronutrient deficiencies are widespread, the combination of mild undernutrition and nutrient-deficiency diseases contributes directly to high mortality risks.

Activities on the prevention side tend to be supported by a more nuanced set of narratives that explain multicausal linkages among chronic poverty, food insecurity, deficiency of government services, unsafe water, and even food price shocks, on the one hand, and inappropriate complementary feeding practices, poor breastfeeding practices, dietary monotony, micronutrient deficiency diseases, and undernutrition, on the other hand.**

This broadening of the emergency nutrition agenda has allowed for appeals for more varied interventions (such as use of home fortificants, nutrition education, and broader information, education, and communication [IEC] activities, promotion of exclusive breastfeeding, and promotion of appropriate complementary feeding of the child at 6 months), but also greater attention to capacity building to facilitate improved programming, more systematic assessment, monitoring, and surveillance capabilities at the national level, and support for policy and strategy development relating to nutrition. For example, Pakistan's appeal in 2008 offered an elaborate set of objectives that included seeking to ensure "appropriate key caring practices," while Kenya's 2009 consolidated appeal proposed to ensure that essential nutrition services are delivered to affected populations to address acute malnutrition and associated morbidities and mortalities, but also to maintain efficient nutrition surveillance systems.***

The language of these appeals is entirely different from that commonly found in the 1990s, when the focus was on immediate action and hence on resolving acute symptoms of nutritional distress. The consolidated appeals process has matured to allow appeals for activities that are essential to resolving underlying problems, not only to resolving symptoms. In order to achieve these increasingly diverse goals mapped out in consolidated appeals, the content of nutrition programming also had to change.

Interventions: From commodities to packages

For much of the 1990s, nutrition programming was dominated by targeted feeding (therapeutic care as well as supplementary feeding) and/or provision of micronutrient supplements — both linked in many consolidated appeals with food provisioning. As a result, it has been argued that "preventing malnutrition through general or targeted food distributions… is the *sine qua non* aim of nutritional interventions in crises" [30].

* United Nations Office for the Coordination of Humanitarian Affairs. Consolidated Appeal for Iraq. New York: United Nations, 2009.

** In 2008, many consolidated appeals referred directly to the global food price crisis as a factor in increasing undernutrition, including appeals for Nepal, Afghanistan, Tajikistan, Kenya, and Sudan.

*** United Nations Office for the Coordination of Humanitarian Affairs. Pakistan Humanitarian Response Plan 2008: Floods and Internal Displacement. New York, United Nations, 2008, and United Nations Office for the Coordination of Humanitarian Affairs, Consolidated Appeals Process (CAP): Emergency Humanitarian Response Plan 2009 for Kenya – Revision. New York, United Nations, 2009.

There is no doubt that food commodity provisioning has not always had nutritional goals. Emergency responses in the 1960s were largely based on the shipping of available surplus commodities to "people in need." Thus, food aid rations typically contained only two or three commodities, which did not allow for nutritional balance. Some of these foods were already being locally purchased in the 1990s. For example, the United States donated cash for local purchase and distribution of 140 tons of rice in response to typhoon impacts in Vietnam in 1992, and Germany offered cash in 1994 to purchase 3,744 metric tons (MT) of local maize in Angola for delivery as food aid to conflict-displaced populations (United Nations Office for the Coordination of Humanitarian Affairs [31], table 4).

However, as the 1990s progressed, there was an evolution in the design of rations, with United Nations and NGO agencies moving toward agreement on nutrient specifications that would not only meet minimum needs (protecting essential metabolic functions), but also help prevent micronutrient deficiencies. By 2002, OCHA was able to state that "agencies in all emergencies ensure a balanced food basket to reduce malnutrition rates, as one-dimensional provision of wheat or rice may alleviate starvation but will not prevent malnutrition" [32]. This meant, on the one hand, that today's food aid basket typically contains five to eight commodities that have been tailored in terms of nutrient balance (including fat and protein content). Georgia's Flash Appeal for 2008 was unusually specific in noting a need to pay attention to "animal protein" requirements in the local diet.

Agreement on minimum standards for food rations also included exclusion of certain products. In the 1960s, tea was delivered after an earthquake in Iran and condensed milk was distributed after a hurricane in Thailand; these were not commodities widely used in the 2000s, primarily because of their inherent costs and lack of "nutritional" value. Similarly, humanitarian organizations came to realize the dangers inherent in distributing dairy products and infant formulas in emergencies because of the risks of displacing breastfeeding and of high infant mortality when formulas are offered in unsterilized bottles. During the 1990s, "baby food" and milk powder made frequent appearances in appeals documents. Greece provided 2,000 packets of baby food (and 10 MT of raisins) to Albania in 1992 in response to its appeal for aid after flash flooding. Spain donated 600 MT of powdered milk to Cuba after floods in 1992. Switzerland and the (new) Russian Federation donated large quantities of milk powder (as well as tinned foods, soup, and noodles) to Montenegro in response to floods. That same year, Kuwait offered "fresh milk" to Egypt after the earthquake that devastated Cairo in 1992, and in 1995 Germany donated 100,000 deutschmarks to ensure delivery of infant formula to the Democratic People's Republic of Korea. Although the delivery of infant formula was still a contentious issue in emergency responses to Iraq in 2003, such products have become increasingly rare, being replaced by blended micronutrient-fortified foods and micronutrient supplements addressing specific needs of vulnerable demographic groups.

Indeed, two main developments have taken place. First, micronutrient fortification has gained prominence in the food aid arena as donors have acknowledged the importance of delivering not simply food, but foods that can explicitly contribute to a nutrition agenda. The United States has supported activities that help track "the extent to which Title II food aid programs are meeting the needs of affected populations, and thus the overall impact and performance of the emergency food relief effort" [33]. In the latter context, "maintaining" nutritional status was added to "improvement" because maintenance of nutritional status in the face of shocks is seen as a positive outcome, especially in emergencies.*

By 2009, nutritionally enhanced products took many forms, including a wide array of fortified blended foods (such as corn–soya blend, wheat–rice blend, or soy-fortified sorghum), ready-to-use foods (both therapeutic and supplementary), the transfer of technologies for local fortification of staples, and home fortificant powders. Additionally, micronutrient supplementation continues to be important. In the mid-1990s, when micronutrient deficiencies were mainstreamed as a priority across the international nutrition community, there were many references in consolidated appeals to deficiencies of specific nutrients, separately from mention of malnutrition. For example, while the provision of iodized salt was already common in the early 1990s, an urgent request was made in North Korea's appeal of 1996 "for foodstuffs and vitamins…to mitigate malnutrition and micronutrient deficiencies."**

The second development was a move toward dealing with nutrition problems more comprehensively rather than piecemeal. The concept of "essential" or minimum packages of inputs or services has gained traction.*** This approach involves combining enhanced food products for therapeutic and/or supplementary feeding, immunizations, micronutrient supplementation, nutrition and health education, antenatal and postnatal care, deworming, growth monitoring and promotion,

* In 1996, only 37% of Title II programs reported on the nutritional status of target beneficiaries; by 2007 the rate was 91% of programs [33].

** United Nations Office for the Coordination of Humanitarian Affairs. United Nations Consolidated UN Inter-agency Appeal for Flood-related Emergency Humanitarian Assistance to the Democratic People's Republic of Korea (DPRK): 1 July 1996–31 March. New York: United Nations, 1996.

*** Dialogue on broad parameters of an "essential package" in nutrition programming was pursued in 2006, with numerous countries adopting at least part, if not all, of the elements since then.

and, where possible, provision of access to clean water and sanitation. The model has been put into practice in a growing number of countries. which tend now to appeal for 'comprehensive and integrated nutrition actions' with an aim of addressing short-term needs (i.e. life-saving actions) while focusing on building preparedness capacity in crisis-prone areas.

Additional elements in some "integrated" programs have included food security and agriculture activities that bolster livelihoods of vulnerable people. For example, as early as 1999, East Timor requested funds "to improve nutritional status… through renewed agricultural production".* In 2000, Germany donated around US$600,000 to Angola for "nutrition security… through food for work activities for IDPs in camps" (United Nations Office for the Coordination of Humanitarian Affairs [34], table H), and several appeals for countries in Africa in 2009 sought to promote nutrition via diversified crop production, that is, offering training on crop diversification, supporting private seed voucher redemption outlets, distributing seed vouchers to beneficiaries, and organizing seed fairs. In other words, nutrition is increasingly used to justify activities that are important to longer-term recovery but only indirectly supportive of humanitarian nutrition objectives in the short run.

Conclusions and recommendations

This overview of the evolution of requests in support of nutrition within the humanitarian appeals process suggests that although much has changed (for the better) in both nutrition appeals and programming since the early 1990s, there is still scope for strengthening the international community's approach to addressing problems that seem to resurface with each new crisis. If, as was argued by the United Nations in 2005, country appeals should be "barometers of aggregated humanitarian need and serve as one-stop funding guides for donors," then several key areas require further attention [35].

In 2006, the Inter-Agency Standing Committee identified a number of important areas in humanitarian response that needed strengthening, including in the appeals process. Several key issues needing to be tackled by the newly established nutrition cluster, including *capacity building* ("while pockets of capacity exist within certain organisations and certain regions, a predictable, standardised and sufficient response in nutrition cannot be systematically guaranteed in each emergency"), *preparedness* ("unambiguous internationally accepted criteria to classify the different types of a 'nutrition emergency' need further development"), and data management in the context of *assessment, monitoring, and surveillance* ("inter-sectoral assessments focusing on the many underlying causes of under-nutrition, undertaken with a commonly agreed upon methodology, would significantly streamline an emergency nutrition response")[36]. The current review suggests that each of these areas requires much more investment of effort and resources if the gaps (which remain wide) are to be closed.

Capacity building is a common mantra in most humanitarian sectors, and yet in nutrition it remains a critical constraint to effective action; as noted by Nutrition Works in 2007), "in order to be more effective in emergencies, the nutrition sector as a whole needs to strengthen" [37]. Although UNICEF (as lead agency for the nutrition cluster) has invested considerably in raising its own human capacity in this area since 2006, and the cluster has been productive in developing training and guidance aimed at building a stronger cadre of field practitioners around the world, the challenge remains vast. On the one hand, nutrition capacity is severely limited among most national partners prone to frequent disasters. That ministries of health have fewer than a handful of personnel well trained in nutrition, that few non health ministries or national agencies have any capacity in nutrition, and that few local NGOs have the capacity to act in nutrition at scale when disasters happen is the norm.** Most existing national capacity is focused on nutrition in development settings (community-based and facility-based interventions); few countries have yet formalized widely understood protocols for the treatment of undernutrition in emergencies, and training of non-nutritionists in nutrition is practically nonexistent. The lack of "nutrition awareness" among professionals outside the nutrition community is one of the constraints to improved cross-cluster communication. On the other hand, although the international community has strengthened training and protocols on emergency nutrition, human capacity also remains limited, given the scale of need.

Although many appeals identify such gaps and include requests for funding to promote local training as well as national institution building in nutrition, the funding necessary rarely materializes. This suggests that dialogue between donors and potential recipient governments on the importance of establishing human and institutional capacity is a priority, as essential to more effective programming in future disasters and a key link between relief operations and longer-term development. As the "framing" of nutrition has broadened in recent years, this aspect of emergency funding has, arguably, been left dangling — well articulated but

* United Nations Office for the Coordination of Humanitarian Affairs. United Nations Consolidated Inter-Agency Appeal for East Timor Crisis, October 1999–June 2000. New York: United Nations, 1999.

** World Health Organization. Landscape analysis on readiness to act in nutrition. Draft report. Geneva: WHO, 2008.

poorly addressed. It is no less important to build and sustain such capacity for responding to (and preventing) nutrition emergencies — as part of consolidated appeal funding priorities — as it is to promote private sector markets for seeds, to re-establish immunization capacity of ministries of health, or to rebuild schools.

Preparedness (with its links to prevention and enhanced recovery) is another persistent gap that has links to capacity building. Although nutrition offers the international community a clear conceptual and programmatic bridge between still widely separated professional worlds of relief and development, bringing thinking in these separate domains closer together remains a challenge. The approaches and products used in community nutrition programming cut across conventional "development" versus "emergency" sectors and as a result should not be separated into different funding windows. Indeed, there is widespread frustration expressed by many nutrition stakeholders "at the continuing divide between nutrition programming in emergencies and nutrition programming in development" [37, 38].

Greater attention to "preparedness" may offer a way forward. It is widely understood that "a high SAM and/or GAM already denotes a failure of… international protection to forestall the progression from food insecurity to nutritional crisis" [30]. Emergency preparedness relies on capacity building, on the one hand, and improved systems for surveillance and data management, on the other. In addition, national efforts to reduce nutrition and mortality risks outside of emergency contexts are essential — and much of that effort should be informed by what happens during crises: who is most seriously affected by or at risk for what nutritional deficiencies, where and when, requiring what kinds of nutrition-supportive interventions.

Without more systematic, targeted attention to the problem of undernutrition that exists prior to emergencies (and usually persists after emergencies), the resources required for containing nutrition crises during emergencies will continue to increase. There is a growing reservoir of vulnerable states across the world, characterized by fragile economies and by fragile livelihoods, pursued by economically and physiologically vulnerable people, who are often already undernourished. As fewer people are dying in emergencies than a decade ago, a growing number are affected, and this links to chronic food insecurity and impaired development. When shocks hit, they find fertile ground for a rapid escalation of nutritional deficiencies that have then to be addressed by the emergency nutrition community, with inadequate resources.

According to Stoddard et al., "As yet there is no agreement among donors over how early recovery programmes should be funded. [As a result], insufficient attention is being given to longer-term preparedness efforts at the national and local levels" [14]. Yet, any capacity enhancement for emergency preparedness will have strong multipliers in the development domain. The fact that nutrition cuts across the conventional relief–development divide should be used as a basis for prioritizing resources to this domain.

Assessment, monitoring, and surveillance are all top priorities — since effectiveness and accountability depend on all three. A major element of accountability in humanitarian response is being able to demonstrate and record the extent to which actions have met their goals. However, according to a recent Lancet Series paper, "There is little published information on the effect of humanitarian response on nutrition outcomes or, more specifically, on the effect of nutrition interventions in emergencies" [39].

This does not mean that progress has not been made. There has been growing attention to standardizing the measurement of undernutrition in the context of humanitarian action, and increasing numbers of humanitarian projects offer detailed data on various nutrition outcomes. Of course, some programs in the 1990s reported on nutrition *treatment* outcomes, but almost exclusively in relation to refugee camp operations; limited attention was paid to representative sampling until the early 2000s, and very little attention was focused on micronutrient deficiency status, except where deficiency diseases had broken out. As a result, few consolidated appeals ever reported on changing nutrition conditions from one consolidated appeal year to the next, linking back to interventions funded — or not funded.

Indeed, the contextualization of nutrition information needs to be more systematically addressed across the consolidated appeals process. Additional data and information needs in nutrition, rarely addressed in consolidated appeals, relate first to *cost-effectiveness*. According to Morris et al., "What is often lacking is a clear analysis of the cost-effectiveness of different interventions to enable recommendations to be made on the optimum ration composition, targeting and exit criteria, and the appropriate mix of complementary activities to improve health and nutrition outcomes" [39]. With many recent innovations in nutrition programming, experiments with different packages of approaches, and varying time frames for objectives (therapeutic care being quite different from nutrition education on exclusive breastfeeding), there is an urgent need for rigorous attention to cost and effectiveness, as well as cost–benefit in relation to potential alternatives. Consolidated appeals, and their associated programming, have the potential to be a much louder "voice" not just for nutrition in emergencies, but for nutrition policy and strategies more broadly.

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