

Scenario #2: Micronutrient home fortification in humanitarian relief: Kenya and Nepal

Background

- Food has long been a cornerstone of humanitarian nutrition programs. In emergency settings, the first priority of food aid programs is to provide for the energy and protein needs of emergency-affected populations, with micronutrients considered only after ensuring the provision of the more basic food needs. Yet, micronutrient deficiencies are a major contributor to mortality and morbidity in these settings, not least because emergencies often exacerbate micronutrient deficiency disorders in all age groups.
- The scenario concerns the challenge of preventing and resolving micronutrient deficiencies in emergencies, particularly among refugee populations. Serious attention to this issue recently arose when overt outbreaks of pellagra (niacin deficiency) and scurvy (Vit C deficiency) forced humanitarian agencies to respond. While some effective strategies are already in place to limit these deficiencies, they have their shortcomings. For example, food fortification, which is the most advantageous way of delivering micronutrients to refugees, cannot meet the biological needs of all population subgroups, particularly young children and pregnant and lactating women. Moreover, storage (the milling process to fortify staple foods significantly reduces their shelf lives) and cooking lead to losses of key vitamins within fortified food.
- An approach that has been utilized most recently is home fortification, which includes the use of home-based, multi-micronutrient fortificants that can be mixed with food at the level of the household. These come in many different varieties, including micronutrient powders or lipid-based nutrient supplements.
- In good practice, home fortification can meet the heightened needs of specific individuals in the household and the losses of micronutrients are minimized because they are not cooked (they are added after cooking) and foods have not gone through the milling process so storage is not a major issue. Home fortification puts the onus on the caretaker(s) of the household to fortify both her and her family members' foods on a daily basis, however, a challenge from a behavior change perspective.
- For this scenario, you are a nutrition program manager who will roll out a home fortification program in a refugee camp setting to address micronutrient deficiency among children 6-23 months and pregnant and lactating women. Below are brief descriptions of two refugee camps that can be used in this assignment. Choose one with which to work.

Setting 1: Damak Refugee Camp, Nepal

Among the seven refugee camp areas in Nepal, Damak area hosts approximately 50,000 Bhutanese refugees who live in one of three sub-camps. In the late 1980s and early 1990s nearly one-fifth of Bhutanese citizens were forced to leave Bhutan in what some say was ethnic cleansing. As a result, over 100,000 Bhutanese nationals fled to eastern Nepal where they have been residing in seven refugee camps. Both UNHCR and WFP provide shelter, food, and other services within the camps, which are the epitome of protracted refugee situations.

Setting 2: Dadaab Refugee Camp, Kenya

The largest refugee camp in the world, Dadaab camp is host to myriad ethnic groups that comprise approximately nearly 400,000 refugees living among three different sub-camps. Initially the camps were set up to host a maximum of 90,000 people, but over the past decade of both civil and political strife in Somalia and the recent famine throughout the Horn of Africa, Dadaab has seen an unprecedented influx of refugees, many of whom are suffering from severe malnutrition. While much of the population is new to Dadaab, there is also a large contingent that has been living there for more than a decade.

Case Study Resources

Setting	Resources to help get started
Damak, Nepal	Nepal Refugee Camp Micronutrient Projects Briefing IOM Cultural Profile of Refugees in Nepal Damak Nutrition Survey Final Report
Dadaab, Kenya	Dadaab Demographics Profile IOM Horn of Africa Situation Profile Dadaab Nutrition Survey Final Report

Main articles

- Weise Prinzo Z, De Benoist B. Meeting the challenges of micronutrient deficiencies in emergency-affected populations. *Proceedings of the Nutrition Society*. 2001; 61: 251-257.
- Dye T. Contemporary prevalence and prevention of micronutrient deficiencies in refugee settings worldwide. *Journal of Refugee Studies*. 2007; 20(1): 108-119.
- Kodish S, Rah J, Kraemer K, DePee S, Gittelsohn J. Understanding low usage of micronutrient powder in the Kakuma Refugee Camp, Kenya: Findings from a qualitative study. *Food & Nutrition Bulletin*. 2011; 32(3): 292-303.
- DePee S, Moench-Pfanner R, Martini E, Zlotkin SH, Darnton-Hill I, Bloem MW. Home fortification in emergency response and transition programming: Experiences in Aceh and Nias, Indonesia. *Food & Nutrition Bulletin*. 2007; 28(2): 189-197.

Other articles

- Dewey KG, Yang Z, Boy E. Systematic review and meta-analysis of home fortification of complementary foods. *Maternal & Child Nutrition*. 2009; 5: 283-321.
- Lancet Series on Maternal and Child Undernutrition

Websites

- www.ilins.org
- www.unhcr.org
- www.wfp.org
- www.imo.int