

Commentary on “Assessing the Quality of Food Aid Deliveries”

by Andrew Seal, Centre for International Child Health, Institute of Child Health, University College London, January 2009.

Main Comments

The report authors have obviously put a lot of thought into this difficult challenge. To arrive at a measure of food aid quality involves consideration of a set of complex issues, and when considering these issues it is sometimes difficult to obtain good data on which to base a judgement.

My view is that for the quality measurement method to be useful it has to be capable of achieving easy buy-in with donors, governments, food aid agencies, as well as technical specialists. Transparency and simplicity of the method are key as many staff working within the food aid system are not technically qualified in nutrition or food science. Likewise, the final score (the bottom line) needs to be presented in a simple and understandable way if it is to be used as an effective monitoring and advocacy tool for improving the quality of food aid.

A concern I have is that the currently proposed method does not fully meet these suggested requirements. The selection of different NoHARM indicators seems, to me, to introduce an unnecessary layer of complexity. I may have missed it but the report did not seem to describe exactly which of the proposed 4 indicators would be used as the overall quality score. This needs to be explained more fully.

I would much prefer to see a focus on simple nutrient density, e.g. amount of nutrient contained in 1,000 kcal of the food basket expressed as a % of the population nutrient density requirement. This could then be expressed as the mean adequacy ratio (MAR). Use of simpler and more descriptive acronyms would help transparency and understanding.

This does raise the issue of how many nutrients to include in the nutrient density score and which these should be. One option is to use weighted scores for nutrients according to their known public health effect, e.g. niacin scores higher than magnesium. Or, alternatively, don't use weights but focus the quality score on a relatively few nutrients of known importance e.g. 15 out of the 40 or so nutrients required for human nutrition and health.

With either approach a MAR might fail to capture potentially lethal deficiencies. E.g. a country's overall annual food aid quality score (MAR) might appear reasonable yet the deliveries could still have contained 0 vitamin C, resulting in scurvy outbreaks.

To counter this possibility an acceptable fluctuation range would need to be established. If the Adequacy Ratio (AR) for any one nutrient were to fall below this range then the MAR would be flagged up as unreliable and users advised to consult the individual nutrient ARs. Alternatively, a penalty system could be adopted in which the MAR is reduced by a pre-agreed amount if the AR for any nutrient falls below the fluctuation range. This second option would lose some simplicity and transparency.

It would be good to see the report come up with clear recommendations on which and how many nutrients to include in the quality score.

Does the measure that is being developed want to also capture the energy density of the food aid as well as the nutrient density, i.e. is energy content per weight or per volume important? I would argue that energy density is not a quality indicator per se, except when considering the role of foods aimed at particular groups, such as infants and young children, or in therapeutic or supplementary feeding.

programmes which target patients. The report should explain how INTERFAIS deals with commodities and products aimed at these types of programmes (e.g. RUTFs) and how and if the quality score would try to account for these or not.

While the focus should be on nutrient density there are other important indicators of overall quality which need to be considered including:

- acceptability to the target population
- usability by the target population given the particular context of the emergency e.g. ready-to-eat meals may be the only form that is useable in some situations
- requirements of fuel for preparation, especially in areas subject to deforestation or fuel poverty
- bioavailability of nutrients
- shelf life (key issue if focussing on nutrient density measures)

Many of these are covered in the discussion but would be good to have these stated at the outset so the reader is made aware of the design criteria and limitations of the proposed quality measure.

In applying a nutrient density quality measure a very difficult issue to account for is that not all food aid programmes are designed in the same way; that different beneficiary groups have different nutritional requirements and that the proportion of different beneficiary groups will vary between different countries and within the same country over time. It may well be that these factors are just too difficult to document and build in to the analysis. But this needs to be dealt with explicitly in the report.

To put this in context it would be useful for the report contain a little more detail on the different types of food aid programmes, general ration, complementary ration, SFP, food for work etc.

In the results the time period for the analysis was not obvious. This should be added to help interpretation. The time period for analysis is a potential important problem in using any quality indicator. If the analysis takes place over a one year period for example, how will shipments split shipments from donors be dealt with? E.g. if a donors maize shipment is delivered in December in 2010 but the blended food that was planned to be part of the same operation isn't delivered until January 2011 then deliveries for both 2010 and 2011 may have poor quality scores. It might be useful to consider the use of a moving time period for analysis, rather than fixed annual time periods.

In my understanding, emergency food aid operations do not always target populations who are completely food aid dependent. Even in the context of a refugee camp beneficiaries may be assessed as having a degree of self-sufficiency and the rations adjusted accordingly. This needs to be stated in the report.

On p9 it is stated that:

"The "minimal nutritional requirements" values of individuals receiving emergency food aid are based on a reference adult male with a level of activity requiring 2100 kcal. Protein, fat and micronutrient values are also based on the reference individual."

However, this is not quite accurate. The requirement figures are originally from 'Management of Nutrition in Major Emergencies' (WHO, 2000), and are calculated based on a reference population rather than just a reference individual. For the reference population a certain demographic composition, level of physical activity and ambient temperature is assumed.

A few other questions/comments:

Spider web diagrams are a nice way of presenting the data – could also be viewed as contributions to a full round meal plate. But they might confuse people. Perhaps a simple bar chart would be safer?

I could see no mention of essential fatty acids. Are there plans to include these?

How could the quality measure deal with the contribution to food aid that might result from the use of micronutrient powders or other food supplementation products?

Other minor issues:

In the introduction it would be useful to include references to some of the major micro nutrient deficiency outbreaks (e.g. pellagra in Malawi and Angola, scurvy in the Horn and Afghanistan, ariboflavinosis in refugees in Bangladesh etc.) and problems of chronic vitamin A and iron deficiency in populations dependent on food aid. Useful ref e.g. (<http://www.unscn.org/Publications/RNIS/MicronutrientsSup.pdf>)

This would help in emphasising the importance of the proposed work.

It would also help the reader if a graph of food aid deliveries over the last decade or so and the proportions classified in different categories was included.

Some references that the author may wish to consider adding include:

Nutrition Service of the World Food Program (2006) Nutrition in emergencies: WFP experiences and challenges. Food Nutr.Bull. 27: 57-66.

Nutrition Service of the World Food Program. (2006) Food for nutrition: mainstreaming nutrition in WFP. Food Nutr.Bull. 27: 47-56.

Nutrition Service of the World Food Program. (2006) Micronutrient fortification: WFP experiences and ways forward. Food Nutr.Bull. 27: 67-75.

Prinzo, Z. W. & De Benoist, B. (2002) Meeting the challenges of micronutrient deficiencies in emergency-affected populations. Proc.Nutr.Soc. 61: 251-257.