

Quality Certification of Infant Foods: Public Intervention to Improve Child Nutrition in the Home

This note describes an action program through which UNICEF could intervene in low-income countries to improve availability of high-quality composite foods, to help families meet the nutritional needs of infants and young children using ready-to-cook complementary foods as well as ready-to-mix fortification products. The intervention is aimed at scaling up the results of a market experiment conducted in Bamako, Mali.¹

Motivation and benefits of the proposed program

Intervention is needed because solid foods for infants must be of unusually high nutrient density, until they can digest sufficient quantities of ordinary family foods to meet their nutrient needs. These “complementary” foods are typically made from a starchy staple, mixed with more costly vegetable or animal sources of protein, fats, and micronutrients.

Traditional techniques for preparing complementary foods at home are very labor-intensive, and the market for mechanically-mixed products is typically dominated by expensive brand-name products such as Nestlé’s Cerelac. Many low-income households cannot afford enough time for home preparation or enough money for brand-name foods to meet their children’s needs, leading to severe deficits among children between 6 and 24 months.

Since the 1970s, nutrition programs have financed the development of many alternative complementary foods. Their cost can be as low as one-fifth the price of popular brand names for a nutritionally equivalent product, but consumers in the marketplace still prefer the more expensive product – even when they cannot afford enough of it to meet their child’s needs.

A market experiment in Bamako, Mali, was used to test the hypothesis that care-givers are reluctant to buy inexpensive composite foods because they cannot observe their ingredients, and must rely on brand reputation and price as a signal of quality. If so, there would be large gains from introducing a program to test and certify the nutrient density of infant foods produced by local entrepreneurs.

The market experiment found that the value of this information is very high, about US\$1.75/kg, or about one-third of what care-givers now pay for Nestlé’s Cerelac. It would be possible to provide testing and certification services for less than US\$0.40/kg. Thus, introducing such a service could reduce the cost of high-quality infant foods by over US\$1 per kg, leading to a large improvement in child welfare.

¹ Results of the Bamako experiment were published in two academic papers: W.A. Masters and D. Sanogo, “Welfare Gains from Quality Certification of Infant Foods: Results from a Market Experiment in Mali”, in *American Journal of Agricultural Economics*, 84(4, November 2002): 974-989, and also D. Sanogo and W.A. Masters, “A Market-Based Approach to Child Nutrition: Mothers’ Demand for Quality Certification of Infant Foods in Bamako, Mali”, *Food Policy*, 27(3, November 2002): 251-268. Photographs of the experiment are posted at <http://www.agecon.purdue.edu/staff/masters/InfantFoodPhotos.htm>.

Design of a quality-certification program

To introduce quality certification, at least four things are needed:

- (a) an enabling legal environment, under which a public (or private) authority is allowed to advertise and test the quality of a product;
- (b) a scientific protocol, for sampling and testing various marketed products to determine their quality;
- (c) a labeling program, through which eligible products receive recognition of their otherwise unobservable quality; and
- (d) an awareness campaign, through which consumers are informed about what the label means and how they can use it in their infant-care practices.

UNICEF already has substantial experience with quality certification of iodized salt, and many other products may have their qualities certified through private organizations such as the ISO or the Underwriter's Laboratory (UL), as well as public agencies such as the U.S. FDA or Department of Agriculture. Some clear lessons of this experience include:

- (1) the legal environment can be a serious obstacle and must be addressed early on: PAHO discovered this in its attempt to introduce certification in Latin America;
- (2) the scientific protocol should focus on testing the attributes that are both important to consumers and impossible for them to verify independently: testing attributes that are minor or that consumers can detect themselves is very costly;
- (3) the labeling program should be done on a fee-for-service basis, in which manufacturers pay a fee to be eligible, based on the number of units sold; and
- (4) the awareness program must focus on building a "brand", but unlike most advertising campaigns that brand is available to anyone whose product is tested.

The implementation of quality certification for complementary foods and fortification supplements could be initiated as follows:

- (i) A consultant or program coordinator, working from a UNICEF regional office (e.g. Abidjan), would visit all of the countries of that region to conduct an informal survey of their infant-foods markets, regulatory environments, and laboratory testing facilities, with a final report due **December 2004**;
- (ii) Using the consultant's reports, the SCN Working Group on Breastfeeding and Complementary Feeding would choose the target countries and then appoint a regional advisory panel to formulate the product-testing protocol, choose an implementing agency, and approve their business plan by **December 2005**;
- (iii) Taking account of the advisory panel's plan, the SCN Working Group would solicit academic researchers to design a monitoring, evaluation and assessment system for implementation **during calendar years 2006 and 2007**;
- (iv) Based on the 2006-07 experience in the target countries, consider world-wide scaling up of the quality-certification process in **early 2008**.

Total expenditure could be as low as \$250,000 per year for four years if the initial program were to target just one or two countries. Funding and oversight could be channeled through UNICEF, or through a third party. Ultimately, the certification label is likely to include not only the UNICEF name and logo, but also those of local Ministries of Health, NGOs, or others.