

## Guidelines to Develop and Implement School Feeding Programmes that Improve Education

### Description of the tool:

This tool sets out seven step-by-step guidelines that will enable teachers and administrators to enhance the impact of School Feeding Programmes (SFPs) on education. It contains a brief description of steps 1, 2, 3, 6 and 7 and a full description of Step 4 in relation to determining optimal rations and timing of school meals and Step 5 regarding the implementation of programmes.

The information in this tool was adapted by UNESCO in collaboration with Health and Human Development Programs at Education Development Center, Inc. from the following publication:

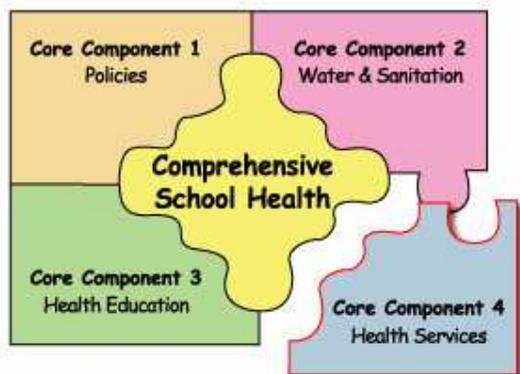
The Partnership for Child Development (1999). *School Feeding Programmes: Improving effectiveness and increasing the benefit to education. A Guide for Program Managers*. Oxford, UK: University of Oxford.

### Description of the document:

Based on a ten-year review of SFP (School Feeding Programmes) research and literature, this guide has been drawn up to assist those engaged in designing new SFPs, or seeking to improve the effectiveness ones that already exist. The guidelines include sections on a rationale for addressing nutrition and health issues for schoolchildren, the potential benefits of SFPs for education, and recommendations for building up effective SFPs as an integral part of a package of nutrition and health interventions for school-age children.

The full text of the document is available at:

<http://www.schoolsandhealth.org/download%20documents.htm>



This information or activity supports Core Component #4 of the FRESH framework for effective school health: **school health services**. It will have a greater impact if it is reinforced by activities in the other three components of the framework.

## Guidelines to Develop and Implement School Feeding Programmes that Improve Education<sup>1</sup>

Research and programme literature on School Feeding Programmes (SFPs) points to the potential school feeding has to improve education. These guidelines propose seven recommendations on improving the design and implementation of programmes to realize this potential.

The first recommendation calls for the establishment of a policy and objectives for school feeding programming and provides a framework within which to implement the subsequent recommendations that focus on the most critical aspects of school feeding programmes: targeting; cost and financing issues; ration composition and meal delivery; programme implementation; monitoring and evaluation; and integrating feeding with other interventions that address the nutrition and health needs of school children.

More specifically, it is recommended that school administrators:

1. **Build up a consensus on a policy and objectives** that focus on how school feeding can effectively contribute to improving education and meeting the nutrition and health needs of school-age children.

School administrators need to agree on what problems or situations the school feeding programme will address, who the programme will serve, and which programme models are feasible for implementation.

2. **Develop targeting criteria and mechanisms** that concentrate programme resources on high-risk children and communities.

In view of the fact that resources are finite, particularly in the poorest countries, and that providing food is expensive, targeting is a critical element of any effort to improve the impact of a school-feeding programme on education. Targeting is essential if the programme is to reach families and communities lacking the resources to adequately provide for their school-age children or those that need to be motivated to enrol their children in school and to have them attend more regularly.

3. **Analyse and identify alternative financing and cost** options for SFPs. Feeding programmes of any kind are expensive. Financing may include international assistance, but in all cases, available public resources - or the potential to draw on them - are required. Cost alone can indicate little about the value of an SFP but, unfortunately, cost-effectiveness analyses, which assess costs relative to impact on nutrition and education outcomes, are for the most part unavailable.

4. **Elaborate appropriate guidelines** for ration composition and the timing of school meals.

To establish appropriate ration guidelines, school administrators need to analyse the nutrition and health needs of school-age children. Conditions such as levels of school enrolment, attendance, and performance, the availability of infrastructure and the capacity to implement different kinds of programmes also need to be assessed. Information is also required on the community's perceptions and capacity to participate in school feeding programmes.

#### **Step 4: Determine Optimal Rations and Timing of Meals**

What constitutes the best ration and when to deliver will depend on the programme's objectives. School meals provided early in the school day to alleviate hunger before or during classes should help to improve children's' attention, concentration, and achievement. Historically – and even today – political and social objectives dominate school feeding programmes. School meals were, and in many cases still are viewed as a means to provide a school child with a large meal in the middle of the day, which typically coincides with local dietary practices.

These programmes served, and continue to serve, not only as nutrition programmes, but also as social welfare programmes providing a substantial economic benefit to families because the child would not then eat his or her midday meal from the family pot. Even so, the nutritional quality and quantity of a ration should always be assessed alongside the effects of the timing of ration delivery.

Other factors, such as local food habits, logistical considerations, food availability and cost will also influence the selection of the ration. General ration guidelines that can be applied almost universally are:

- A school snack or meal usually provides from one-third to one-half of the recommended daily allowance for energy and protein for the school-age group targeted by programmes. A substantial ration is recommended to ensure overcompensating so that parents do not withdraw more food at home than the child receives at school. Programmes that include older children, particularly adolescents, in the target group will require larger rations to meet the increased nutritional needs during this period (see Table 1).

Table 1: Mean Daily Per Capita Energy Requirement and Safe Protein Intake

	<b>Pre-Primary 3-5 yrs</b>	<b>Primary 6-12 yrs</b>	<b>Adolescent 11-14* yrs</b>
Energy (Kcal)	1700	1900	2350
Protein (grams)	32	40	46

Sources: Energy and Protein Requirements. World Health Organization (WHO), Geneva, 1985 (WHO Technical Report Series No. 724).

\*Adopted from Recommended Dietary Allowance, 9th ed., 1980, with 1989 RDA numbers. These are U.S. standards that are generally higher for calories and lower for protein than international standards. WHO and the Food and Agriculture Organization (FAO) are in the process of preparing new guidelines for daily nutrient intake for all population groups.

- Rations that fill the actual micronutrient gaps in the diets of school-age children are higher in nutritional quality and can be expected to have greater impacts on learning (see Table 2). Ensuring the inclusion of the appropriate level of micronutrients in the school ration may require more than simply selecting the appropriate mix of foods. Fortification (adding additional nutrients to staple food) may be an option if the size of the ration is relatively small, where the ration itself, or a component like flour, is centrally processed, or where the foods to be used do not contain a high level of the most essential micronutrients (See Box 1).

Table 2: Recommended Mean Daily Intakes for Vitamin A, Iron and Iodine

<b>Age group</b>	<b>Vitamin A (ugretinol/ IU)</b>	<b>Iron (mg)</b>	<b>Iodine (ug)</b>
Pre-primary (1-6)	400/1330	10	90
Primary (7-10)	400/1330	10	120
Adolescents	500/1665 (10-12yrs) 600/2000 (12-15yrs)	12 (boys 11-14yrs) 15 (girls 11-14yrs)	150
Pre-primary (1-6)	400/1330	10	90

Sources: Requirements for Vitamin A, Iron, Folate and Vitamin B. Report of a joint FAO/WHO Expert Consultation, FAO, Rome, 1988; USDA Website; WHO and ICCIDD (International Council for the Control of Iodine Deficiency), 1997; WHO Vitamin Requirements, Vitamin A, Iron, 1990.

- Fresh milk, although it appears to be nutritious and convenient, is not recommended as it is usually an expensive source of calories, is perishable and subject to contamination.
- A meal or snack provided early in the school day will eliminate hunger so that children are more attentive in class.

### Box 1. Filling the Micronutrient Gap through Fortified Rations

World Food Programme (WFP)-assisted programmes offer the option of using fortified blended foods such as corn-soy blend or wheat-soy blend that provide at least two-thirds of the daily micronutrient requirements of young children. Locally manufactured blended foods with similar quantities of micronutrients are available in many countries, for example, FAMIX in Ethiopia, HEPS in Zambia, INDIAMIX in India and Likuni Phala in Malawi (WFP, 1996d).

Local alternative programmes such as the snack programmes in the Dominican Republic and Peru propose another approach to providing a fortified ration. In the Dominican Republic the corn meal used in the production of cakes and muffins for SFPs is fortified with 100% of the iron requirement for young children. All producers must purchase and use this corn meal in the production of the school ration. Similarly, in Peru a criterion for selecting producers of the grain product for SFPs was that the product contained at least two-thirds of the daily requirement for iron and vitamin A.

5. **Identify and address any potential bottlenecks in implementation**, such as the availability of supplies and other resources, the appropriateness of cooking practices and the management of private sector inputs.

This recommendation is particularly relevant for a school administrator who is already operating a programme. Once school feeding programmes are in place, altering them can meet strong resistance. However, a range of new experiences is now available that has the potential to alleviate some of the common obstacles to efficient and effective programming. Where a school feeding programme already exists, a wealth of information is readily accessible. A critical step towards a better programme is to thoroughly analyse this on-going experience.

#### ***Step 5: Simplify Programme Implementation***

On-site prepared meals, pre-prepared meals and food in bulk or coupons are the key school feeding programme models. Each model is associated with a different set of issues related to programme implementation (see Table 3).

In many cases the current emphasis on the timing of meals – providing the school meal early in the day to maximise the impact of the programme on educational objectives – involves a significant change from current practice. Furthermore, the conditions extant for meal preparation in many developing countries, for example the need to utilise volunteers, the long distances involved in fetching water and fuel for cooking, slow cooking facilities, does not facilitate the successful preparation and provision of meals to children early in the day. New programme approaches have recently been developed and tested to overcome some of the technical and logistical obstacles associated with SFPs. Countries might consider these when developing new programmes and modifying those already existing:

- **Use of snack foods**

Providing a snack as opposed to a more traditional school meal, such as school lunch, will significantly reduce preparation time. In Indonesia, for example, a new programme will provide from 10 to 15 US cents per ration for the local production of a snack containing 300 kcal and 5 grams of protein. The intent of this programme is specifically to avoid industrially produced snack foods, since another objective is to increase local food production.

However, emphasis is equally placed on the delivery of an appropriately timed snack. The basic foods to be used are tubers (cassava, sweet potato and taro), cereals (rice and corn), fruit, and vegetables. Snack foods also circumvent the problem of substituting the school meal for one of the family meals. This is preferable from the standpoint of nutrition because the school meal will supplement the normal diet.

- **Products with quicker cooking times**

Blended foods and cereal flours can be prepared much more quickly than unmilled whole grains. In Kenya, for example, a long-running programme that provided a school lunch to children involved more than four hours of preparation time. A recent pilot programme that substituted the traditional meal of maize, beans, bread and vegetable oil with a programme that provided an early morning drink and biscuits and a porridge at midday made from a blended food effectively cut preparation time to under an hour. Unfortunately, although this food was readily accepted and engendered savings in fuel costs, this saving was cancelled out by a 35% higher transportation cost given the much shorter shelf life of products.

- **Monetization**

Monetization is the sale of donated foods on the general market so that the central government can donate the proceeds to school systems for their feeding programmes. The school systems then purchase the food from within their local communities.

This practice obviates the need for nationwide transportation of large quantities of food, which, in many cases, is a severe obstacle to implementing consistent and effective programmes, and can also increase the choice of food commodities that can be used in feeding programmes. This practice is becoming increasingly popular. Although offering donated food on the market can generate income for the local economy, it can also slow down indigenous food production and increase the risk of mismanagement and corruption. Food preparation issues also need to be addressed.

- **The private sector**

An off-site prepared meal or snack programme addresses many of the technical and logistical concerns of SFPs. Programmes in Peru and the Dominican Republic are examples of a private-sector approach to school meals. In both cases the meal provided is a snack or breakfast, which is itself a break from the traditional school lunch. Employing private enterprises to prepare and deliver the snack foods to schools facilitates the provision of a consistent and high-quality ration early in the day, food whilst reducing the time taken from learning activities. One problem with these programmes, however, can be the monotony of the ration provided.

- **The informal private sector/street vendors**

Enlisting the support of local street vendors to provide better quality school meals to children is an option to consider. For example, in Lesotho former local vendors manage privatized school canteens. In Nigeria, state and local governments train and license vendors who sell food to schoolchildren. In other cases, heads of schools choose local vendors to serve their schools. However, when using this option, the issue of the quality and hygiene of food served must first be addressed.

- **Information, education and communication campaigns**

Effective information, education and communication campaigns assist in heightening awareness of the benefits of providing meals earlier in the day, provide backing for the procedures needed to succeed with early meal preparation projects and help to foster the changeover to more cost-effective programmes.

Moreover, the possibility of alleviating hunger in schoolchildren without organizing a formal feeding programme should be borne in mind. An appropriate objective for information, education and communication campaigns could be to encourage parents to feed their children before sending them to school or to provide them with a bag lunch or money to purchase food.

6. **Develop monitoring systems that focus on programme processes**, in other words, how well a programme is functioning and introduce an evaluation system to assess its impact on specific outcomes.

The need to monitor and evaluate programmes is not unique to SFPs, but is critical to increasing their impact. Guidance on creating monitoring and evaluation systems for SFPs, can be found in Monitoring and Evaluation: A Guidebook for Nutrition Project Managers in Developing Countries<sup>2</sup> (Levinson, Rogers, Hicks, Schaetzel, Troy and Young, 1999).

7. **Integrate feeding programmes with other interventions** that address the primary nutrition and health problems of the school-age population.

In conclusion, the past decade has demonstrated the added value of integrating other nutrition and health interventions with feeding programmes. Deworming, micronutrient fortification or supplementation, health nutrition and hygiene education are all recommended interventions that are described in more detail in *Class Action: Improving School Performance in the Developing World through Better Health and Nutrition*<sup>3</sup> (Del Rosso and Marek, 1996) and in different publications of the Partnership for Child Development related to school health (available at <http://www.child-development.org/>).

Table 3: The Logistics of Different School Feeding Programme Models

Model	Infra-structure required	Staff requirements	Meal options	Feasibility of providing early meal	Issues
On-site meal preparation (donated food)	High	High	High (wider range of commodities possible)	Medium (cooking time involved)	High organisational requirements; monetisation could simplify logistical problems; risk of substitution (e.g., replace family meal)
On-site meal preparation (local food)	Medium (if decentralised)	Medium	High (depending on local resources available)	Medium (cooking time involved)	Quality control of meals possible problem; mid-level and local level expertise needed; risk of substitution
Off-site pre-prepared meal/snack – private-sector participation	Low	Low	Low	High (if transport issues are resolved)	Monotony of ration; inadequate size/quality to meet food/nutrition deficit; difficulty reaching inaccessible areas
On-site pre-prepared meal/snack - local food vendors	Low	Medium	Low (limited to local availability)	Medium (cooking time involved)	Quality control; hygiene and sanitation; mid and local level expertise needed for technical issues and management; relatively untested approach
Take-home coupons or cash or food in bulk	Medium	Medium	No meal	No meal	No expected income on learning; unclear how much gets to the child

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<sup>1</sup> The Partnership for Child Development (1999). *School Feeding Programs: Improving effectiveness and increasing the benefit to education. A Guide for Program Managers*. Oxford, UK. University of Oxford

<sup>2</sup> The document can be downloaded from the following URL:  
[http://wbln0018.worldbank.org/hdnet/hddocs.nsf/0/fc14259c793a6ad585256880007cf69d/\\$FILE/frontmat.pdf](http://wbln0018.worldbank.org/hdnet/hddocs.nsf/0/fc14259c793a6ad585256880007cf69d/$FILE/frontmat.pdf)

<sup>3</sup> The document can be downloaded from the following URL:  
[http://www.worldbank.org/html/extdr/hnp/nutrition/classaction/cla\\_act.htm](http://www.worldbank.org/html/extdr/hnp/nutrition/classaction/cla_act.htm)