

Why Nutrition Education matters



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WHY NUTRITION EDUCATION MATTERS

Introduction

Problems of undernutrition, vitamin and mineral deficiencies, obesity and diet-related chronic diseases increasingly exist side by side across the world.

There are more than 900 million people who are undernourished and approximately 170 million underweight children. Those who do not get enough energy or key nutrients cannot sustain healthy, active lives. The result is poor physical and mental development, devastating illness and death, as well as incalculable loss of human potential and social and economic development.

At the same time, hundreds of millions suffer from diseases caused by excessive or unbalanced diets and many developing nations are now dealing with severe health issues at both ends of the nutritional spectrum. Countries still struggling to feed their people face the costs of preventing obesity and treating diet-related non-communicable illness. This is the “double burden” of malnutrition.

In order to be well-nourished, individuals need access to sufficient, safe and good quality food. But focussing solely on food security is unlikely to solve global malnutrition: improvements in food production alone do not necessarily translate to improvements in nutritional status.¹ To avoid a crushing economic and social burden in the next 15 to 20 years, countries need to educate their people about eating the right foods – not just more or less food. People need to know what constitutes a healthy diet and how to make good food choices.

Promoting nutritionally adequate diets for all consumers is a major aim of FAO and is vital in the UN's overall efforts to improve the health and wellbeing of populations and foster social and economic development.

¹ World Bank. 2007. *From Agriculture to Nutrition: Pathways, Synergies and Outcomes*. Washington. <http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTARD/0,,contentMDK:21608903~pagePK:148956~piPK:216618~theSitePK:336682,00.html>.



Nutrition in development

The importance of nutrition

Until recently, nutrition has been the “forgotten MDG”, “often unrecognized, rarely acted upon and grossly underfunded”,² seen as a supporting investment rather than as a fundamental one. One reason is that nutrition does not fit neatly into “sectoral silos”; another is a general lack of awareness, and hence of pressure, from countries and international organizations. From 2004 to 2007 only about 1.7% of development and emergency food aid was dedicated specifically to improving nutrition and nutrition still takes only 3% of the total given for health. Of this, only a very small proportion has been dedicated to nutrition education.

However it is at last being recognized that nutrition is “absolute ground zero for any serious discussion of economic and human development” and that spending on nutrition is not only essential but also highly cost-effective. Recent food and financial crises have aroused governments to recognise the importance of food and nutrition security as a fundamental factor in political stability as well as in socio-economic development. On the international scene there are revitalised international bodies (e.g. the Committee on World Food Security),³ new associations (e.g. the World Public Health Nutrition Association), new research evidence on the impact of nutrition interventions, policy papers, and large-scale initiatives on reducing young child and maternal malnutrition (e.g. SUN).⁴

Food security and nutrition security

At the same time the essential synergies between agriculture, health and nutrition are being highlighted. A critical discovery has been that focussing on food security alone often does not improve nutrition status:⁵ put simply, more food does not necessarily mean better diet. For example, increasing maize production will not increase consumption of micronutrients, while more income from cash crops may mean more consumer goods in the home rather than better eating for the family. This is why the concept of food security must include nutrition security – or vice versa – and why food security interventions need an explicit focus on nutrition.

FAO's role

FAO is fully engaged in this nutrition renaissance. Its mission is to “raise levels of nutrition, improve agricultural productivity, better the lives of rural people and contribute to the growth of the world

² Ibid.

³ <http://www.fao.org/cfs/en/>

⁴ SUN. 2010. Scaling up nutrition: a framework for action. Developed in consultation with the Centre for Global Development, International Conference on Nutrition, EC, UNSCN, USAID, UNICEF, WFP, WHO and World Bank. http://www.unscn.org/files/Announcements/Scaling_Up_Nutrition-A_Framework_for_Action.pdf

⁵ World Bank. 2007. Ibid.



economy". It brings long experience and a critical mass of experts to tackling policy and planning, nutrition assessment and programme development at global, national, community and household levels. Nutrition runs through most of its activities, but is particularly strong in work on food composition, nutrient requirements and nutrition assessment, food and nutrition security policy and nutrition education.⁶

By the nature of its mandate, FAO emphasizes approaches which focus on food as the main way to improve diets and fight malnutrition. These approaches look at all links in the food chain from production and purchase to consumption; promote home gardens for better diets; understand the social significance of food; and recognize people's need to act for themselves to improve their diets and lifestyles. They promote "a wide variety of good quality safe and culturally appropriate foods in sufficient amounts to meet nutritional requirements within a hygienic environment and coupled with a healthy lifestyle" – in simple terms, an all-round good diet, all the year round.

The role of Nutrition Education

Nutrition education as a strategy of choice

Nutrition education is also coming into the limelight. It is now acknowledged as an essential catalyst for nutrition impact in food security, community nutrition and health interventions. It is also demonstrably capable of improving dietary behaviour and nutrition status on its own. Moreover it has long-term effects on the independent actions of parents and through them on the health of their children. At the same time it is low-cost, practicable and sustainable.

It also has very wide scope. It contributes to all the pillars of food and nutrition security, but is mainly concerned with whatever influences food consumption and dietary practices: food habits and food purchasing, food preparation, food safety and environmental conditions. Many causes of poor nutrition are attitudes and practices which can be influenced by education: food taboos, long-established dietary and snacking habits, agricultural production decisions, food distribution in the family, ideas about child feeding, misleading food advertising, ignorance of food hygiene, or negative attitudes to vegetables. Education is becoming critically necessary in countries affected by globalisation and urbanisation which are experiencing a dangerous dietary transition to cheap processed foods rich in sugar, fat and salt.

The right to food

The need for nutrition education has been strongly reinforced by the concept of the Right to Food. The public requires information and training to recognize their food rights and to learn how to participate in decisions that affect them. Parties to the International Covenant are under an obligation to provide information and education on good diet, food safety, food-borne diseases, food labelling and processing, production and preparation; while in the school curriculum integrating agriculture, food safety, environment, nutrition and health education builds citizens' capacity to

⁶ See <http://www.fao.org/ag/humannutrition/nutritioneducation/en/>

achieve and maintain their own food security. Hence nutrition education is an essential vehicle for establishing food rights.⁷

Who needs nutrition education?

Nutrition education is needed in all settings to protect people's health. But public resources are scarce, and urgent needs have priority. To ensure that their children develop properly both mentally and physically, mothers need to know and practise some essential actions: eating well themselves, breastfeeding exclusively up to six months, and then providing rich and nourishing complementary food while continuing to breastfeed. Schoolchildren, at a critical age for forming good dietary habits, need to learn to eat and enjoy a variety of vegetables and fruit and to avoid too many sweets and sugary drinks and foods high in salt. People living with HIV and AIDS benefit from understanding that a good diet helps build resistance to infection.

Yet the focus cannot be too narrow: not only mothers but also husbands, families, the community and the professionals who advise them need to understand that children's lives and futures depend on how they eat. Those in charge of children and youth, or caring for the sick also need nutrition education: families and teachers have to learn not only to eat well themselves but also to become sources of education. Those who provide advice on agriculture must know what crops can easily be grown to make quick and crucial improvements to family meals or to enrich baby foods, and must see the urgency of sharing this knowledge.

FAO's role in nutrition education

As the lead UN agency for food production, nutrition and food safety, FAO's constitutional mandate includes ensuring adequate nutrition, empowering producers and consumers, disseminating nutrition information, improving education related to nutrition and spreading public knowledge of nutritional science and practice. Nutrition education is therefore central to its activities and an important element in agricultural programmes in promoting production and consumption of a diversity of nutritious foods that are critically lacking in people's diets.

Changing concepts of Nutrition Education

What is nutrition education?

"Nutrition education" does not mean the same to all nutrition professionals. A fundamental distinction is between education about nutrition (traditional information-based study) and education in nutrition for action, which aims at practices: it has been defined as "learning experiences designed to facilitate the voluntary adoption of eating and other nutrition-related behaviors conducive to health and well-being".⁸ This approach centres on people, their lifestyles, motivations

⁷ RTF Brief No. 6. Education and awareness-raising <http://www.fao.org/righttofood/kc/downloads/briefs/en/6/03.htm>

⁸ ADA (American Dietetic Association). 1996. Position of the American Dietetic Association: nutrition education for the public. *J Amer Diet Assoc* 96,11,1183-1187.

and social context, and has an action-based methodology. It has developed under various names, for example, social marketing, behaviour change communication, community nutrition and health promotion.

What makes nutrition education effective?

There is already considerable knowledge and experience of what works in nutrition education for action. Practice and motivation are as valuable as information and understanding. Some repeatedly mentioned success strategies are:

- hands-on experience
- various kinds of modelling, including fictional stories, examples and cases
- learning by experience, trial and error
- maintaining activities over a long period
- participation, dialogue and discussion
- multiple channels and multiple activities
- multi-sectoral collaboration.

Creating a supportive environment is also a key strategy. In schools for example unspoken but powerful nutrition messages can be embodied in food vendors' wares, handwashing practices, school meals, snacks brought from home, the school garden, and teachers' eating habits as well as in classroom lessons. On a wider scale, government can act to create an enabling environment, for example by establishing standards for healthy school meals, insisting on accurate information and labelling, and putting restraints on food advertising aimed at children.

The action-oriented model of nutrition education is still relatively little practised. One reason is lack of capacity. Few countries offer professional training in this field (in some it is unknown) and familiarity with behaviour change approaches is generally lacking. District and community development staff in health and agriculture often have little training in nutrition and usually none at all in nutrition education. As a result, they believe that their job is simply to pass on information and advice, and this is what they do, often to little effect. The nutrition professions themselves often do not recognize the need for action-oriented nutrition education, or promote it.

Strong advocacy is needed to establish nutrition education firmly in national policy and institutions, and there is a great need for professional capacity to integrate effective nutrition education into health, agriculture, education and community services.

FAO's approach to Nutrition Education

FAO believes, together with other international development organizations, that where people need to eat healthier diets an action-oriented nutrition education is what is required. FAO brings a broad, food-based approach to nutrition education and consumer awareness. It promotes nutrition education in many settings (e.g. schools, worksites, rural and urban food security programmes) and through diverse communication channels. It also plays a major role in providing public information on nutrition. Its approach to nutrition education emphasizes

- the importance of access to food and household food security;



- exploring and addressing constraints such as women’s workload and chronic diseases;
- the whole food chain: for example planning and growing a good diet in food gardens, preserving foods for the hungry season, rearing small animals, recognizing good food value in shopping, recognizing and rejecting junk food, cooking and serving;
- the social aspects of diet: for example, social and commercial influences on eating;
- food practices: who and what influences them, how they change, what helps or hinders, the strength of dietary habits, people’s need to act for themselves to improve diets and lifestyles;
- the powerful appeal and motivation of food: cooking and eating, people’s natural interest in learning about food and diet;
- the evidence base for nutrition education: the need to establish baselines, assess impact, describe and explain methodologies, evaluate educational elements independently, carry out longitudinal studies and (where possible) set up control groups.

FAO’S special interests and activities

Nutrition education in FAO is the special responsibility of the Nutrition Education and Consumer Awareness Group (AGNDE) which carries out advocacy, knowledge-sharing and technical assistance to member countries in order to

- influence public policies and promote access to a variety of nutritious foods
- increase knowledge of the nutritional value of foods
- influence behaviours, attitudes and beliefs
- develop personal skills and motivation to adopt healthy eating practices
- extend professional expertise in nutrition education.

AGNDE staff organize technical consultations, participate in meetings and conferences to share experiences and lessons learnt, carry out research and review literature, publish articles and concept notes, provide direct technical assistance to Member Countries, and (not least) set standards by producing and disseminating factsheets, manuals and training materials (see Annex). Some of its core activities are set out below.

Raising public awareness through national dietary guidelines

To educate about eating the right foods – and the right amounts and combinations of foods - FAO supports the development of food-based dietary guidelines which present national nutrition needs in the form of simple dietary advice for the public, and assists national institutions in developing communication materials (e.g. food guides, leaflets) to ensure that the guidelines are used effectively. Such guidelines have now been developed and tested in more than 50 countries.⁹

In addition to their role in education, national dietary guidelines are used as tools for guiding trade, agricultural and food security policies, and for setting dietary standards in institutional settings such

⁹ <http://www.fao.org/ag/humannutrition/nutritioneducation/fbdg/en/>

as schools and worksites. FAO is currently working to develop capacities and educational materials for linking dietary guidelines with food and nutrition labelling.

Improving maternal and young child feeding

The critical window for adequate child growth and cognitive development is the 1000 days between conception and the second birthday. If infants and children are poorly nourished during this period they do not grow and develop well physically or mentally, and can also become overweight adults with chronic health problems. Recommended diets and feeding practices for women and young children are generally agreed upon¹⁰ and progress has been made, but there is still a long way to go. Nutrition counselling for young girls and women, especially mothers, needs to be improved; local diets need to be optimised and linked with food security interventions; intensive education in complementary feeding is called for.

FAO promotes good family and complementary feeding through sharing knowledge and skills on how to optimise the use of locally available foods. It is exploring how improvements in complementary feeding are most readily adopted and how health and agricultural extension workers and community nutrition promoters can be trained to assist in the process. Research is under way to assess the impact of this approach in one African and one Asian country.

Linking nutrition and family agriculture

Many low and middle income countries get much of their income from agriculture. Household food gardens in both rural and urban areas can be a vital complement to commercial food production: with their low-input technology and convenient access, they can produce a variety of crops and small animals with great potential for improving household eating. For young children in particular, more variety, more micronutrient rich vegetables and fruit, and more animal foods (e.g. small livestock or fish) can make a huge difference in growth and health. However, home gardeners must be able to see the essential connections between their choice of crops and the nutritional needs and dietary practices of the family. This means that extension services in health and agriculture must coordinate their advice and promote nutrition education, if possible also linking to school gardens and the school curriculum.

FAO has consistently promoted home gardens for improved nutrition and school gardening for learning to grow a healthy diet. Community study programs such as FAO's Farmer Field Schools and Junior Farmer Field Schools also provide good hands-on opportunities for such integrated learning.

Promoting nutrition learning in schools

Elementary schools are an excellent setting for promoting lifelong healthy eating and improving long-term, sustainable nutrition security. Good nutrition is crucial for children's physical and mental development; schoolchildren are current and future consumers and future parents; and are also an important link between school, home and community. The challenges are that nutrition is thinly represented in school curricula and teacher training, is in competition with other subjects in an

¹⁰ See for example WHO 2008 Indicators for assessing adequacy of complementary feeding practices.



overcrowded curriculum, is often poorly taught and does not build bridges with home and community.

Yet world interest in primary school nutrition education is strong and FAO is a point of reference for countries which want to tackle these challenges. FAO's approach is aligned with other international movements for school health, such as the movement for health-promoting schools and the FRESH initiative.¹¹ It is based on needs, hands-on experience and action; it involves not only the classroom but also the family, the community and the school staff, and the school environment, including everything which has to do with good eating and health practices - the school garden, canteen, tuck shops, water and sanitation facilities. FAO activities for school nutrition education have included workshops, meetings and articles and a considerable number of projects. A series of model products shows how school nutrition learning can be activated and embedded in the social and physical environment to produce real results.¹²

Education and advocacy and on hunger and malnutrition for children and youth

FAO and AGDNE work with other UN agencies, international organizations and NGOs to develop information on food and nutrition security for young people and their teachers and leaders. FAO spearheads Feeding Minds, Fighting Hunger, the global education and advocacy initiative to create greater awareness and understanding of the issues of hunger, malnutrition and food and nutrition insecurity. Developed by AGDNE, in collaboration with other international partners, Feeding Minds provides information, lesson modules, activities and other resources on a variety of topic related to hunger and malnutrition for use both inside and outside the classroom. It also includes an animated website "Window on the world" on the right to food and lessons on nutrition and healthy diets "Eating well for good health". AGDNE also provides technical guidance on hunger, nutrition and food security to YUNGA (the Youth and United Nations Global Alliance) which facilitates collaboration between UN agencies and other organizations working with children and young people (such as schools, youth and civil society groups, NGOs and government institutions).

Capacity development

FAO works with government agencies, universities, training institutions and NGOs to identify, enhance, develop and strengthen national capacities to provide nutrition education for the general public, school children and vulnerable groups. Our recent research¹³ shows that developing countries have a strong interest in introducing professional training in nutrition education at all

¹¹ WHO. 1997. *Promoting health through schools: Report of a WHO expert committee on comprehensive school health education and promotion*. Technical Report Series 870. Geneva. http://whqlibdoc.who.int/trs/WHO_TRS_870.pdf.

UNESCO. 2000. *FRESH: Focusing resources on effective school health*. UNESCO, UNICEF, WHO, World Bank. http://www.unesco.org/education/tlsf/TLSF/theme_b/mod08/img/FRESH.pdf.

¹² <http://www.fao.org/ag/humannutrition/nutritioneducation/49740/en/>

¹³ FAO. 2011. *Training needs analysis in nutrition education, including e-learning: final report*. FAO, Rome. www.nutritionlearning.net.



levels: undergraduate, postgraduate, management level and extension work, with the focus on nutrition education for action. A new project in FAO¹⁴ will develop such training, starting with an undergraduate module, to be followed in later projects by in-service courses, extension training and advocacy workshops. The training will be freely available both online and face-to-face, and the course development process will stimulate international discussion on nutrition education through the related web forum.

Educational resources, materials and planning tools

To support field activities the AGNDE group develops and disseminates nutrition information materials, technical guidelines and tools for use by nutrition professionals, trainers and educators. These can all be accessed through the Nutrition Education and Consumer awareness website.¹⁵ Some are listed in the Annex.

Conclusion

In most situations education can make a difference to poor nutrition, and there are many situations where education is the key. There are for example very few mothers who are unable to make some small improvement in the feeding of their babies which will protect their health and help them to grow and develop. Breakfasts for schoolchildren and healthier snacks for teenagers are not beyond the reach of most families. These changes do not cost much in money or effort, but they need to be built into people's lives and into the health, education and agricultural systems as a culture of practice rather than as a series of limited projects or experiments or ineffectual good advice.

For its own nutrition education activities, FAO gives special emphasis to some basic principles:

- To have a real effect on people's lives, food security must include nutrition security.
- Nutrition security requires learning new perceptions and new practices.
- Focusing on food means taking account of the whole food chain, from production to consumption.
- Good nutrition education is led by questions. Formative research, monitoring and evaluation are essential, but they should belong to families and communities as well as to researchers.
- People need to take charge of their own nutrition and that of their families.
- Food and diet are social matters and many people and groups influence dietary practices, including the media.
- Changing food habits takes time and trouble. People's existing diets, eating habits, attitudes and circumstances are the starting point.
- Finding out, discussing, problem-solving, practising, supporting are all part of the process.
- Maintenance is what matters most.
- Capacity for nutrition education needs to be built throughout the system.

¹⁴ www.nutritionlearning.net

¹⁵ <http://www.fao.org/ag/humannutrition/nutritioneducation/en/>



These may all be intuitively acceptable, but most are not perceived or practised in most nutrition initiatives. Change is required not only in how people eat but also in official and professional attitudes to meeting the challenges. In this sense, nutrition education is for all.

PARTNERSHIPS AND COLLABORATION

FAO's nutrition education work supports many initiatives such as the UN-wide Millennium Development Goals, the WHO Global Strategy on Diet, Health and Physical Activity, the FAO/WHO Fruit and Vegetable Initiative for Health, Focusing Resources on Effective School Health (FRESH), the Inter-agency Nutrition Friendly Schools Initiative, as well as FAO-led initiatives such as Education for Rural People, the Rural Employment Strategy, Junior Farmer Field and Life Schools (JFFLS), the Right to Food, the Special Programme on Food Security and the International Alliance Against Hunger. FAO is also a partner with the World Health Organization (WHO), the World Food Programme (WFP) and the United Nations Children's Fund (UNICEF) in the implementation of MDG programmes in 24 countries under the MDG Achievement Fund - Thematic Window for Children, Food Security and Nutrition. FAO is a partner in the REACH initiative on Ending Child Hunger and Malnutrition and actively supports the global Scaling up Nutrition (SUN) initiative.



ANNEX: FAO'S EDUCATIONAL RESOURCES AND PLANNING TOOLS

For community work in nutrition and home gardening

Healthy Harvest. 2008. A training manual for community workers in good nutrition and the growing, preparing and processing of healthful food. Developed jointly by FAO and UNICEF, with the Food and Nutrition Council of Zimbabwe.

<http://motherchildnutrition.org/healthy-nutrition/pdf/mcn-healthy-harvest.pdf>

A Family Nutrition Guide. 2004. A practical guide to improving the feeding and nutrition of families in developing countries, written primarily for frontline extension workers.

<http://www.fao.org/ag/humannutrition/nutritioneducation/62758/en/>

Improving nutrition through home gardening for field workers in Asia. 1995. A training package to help field workers promote home gardening for better nutrition.

<http://www.fao.org/docrep/V5290E/V5290E00.htm>

Improving nutrition through home gardening for field workers in Africa. 2001. A training package for field workers to help families and communities improve food production and add nutritional value to their diets.

<http://www.fao.org/docrep/003/X3996E/X3996E00.htm>

A training package for preparing field workers in Latin American and the Caribbean. 2000.

<http://www.fao.org/docrep/V5290S/V5290S00.htm>

For schools

Nutrition education in primary schools. 1998. A survey of fifty countries worldwide.

<http://www.fao.org/docrep/X0051T/X0051T08.HTM>

Nutrition Education in Primary Schools: a Planning Guide for Curriculum Development. 2006. A guide for curriculum developers and educators in planning or redesigning a nutrition education classroom curriculum and related school-based nutrition actions.

<http://www.fao.org/docrep/009/a0333e/a0333e00.htm>

Nutrition Education for Zambian Basic Schools. 2004-2006. A set of teacher and student materials for Grades 2 and 4.

<http://www.fao.org/ag/humannutrition/nutritioneducation/49739/en/zmb/>



For school gardens

Setting up and running a school garden. 2005. A manual for teachers, parents and communities.

<http://www.fao.org/docrep/009/a0218e/a0218e00.htm>

Teaching Toolkit. 2010. Classroom lessons to accompany the school garden manual.

<http://www.fao.org/docrep/012/i1118e/i1118e00.htm>

A new deal for school gardens. 2010. An advocacy paper promoting school gardens.

<http://www.fao.org/docrep/013/i1689e/i1689e00.pdf>

For infant and young child feeding

Improved complementary foods for infants and young children in Zambia. 2008.

<http://www.fao.org/forestry/15278-070254cc2bbf52138c6ad8a660a05a36.pdf>

Complementary feeding for children aged 6-23 month. 2011. A recipe book for mothers and caregivers, developed for Cambodia.

<http://www.fao.org/docrep/014/am866e/am866e00.pdf>

Promoting improved complementary feeding (with recipes) 2011. A manual for community nutrition promoters, developed for Cambodia.

<http://www.fao.org/docrep/014/am867e/am867e00.htm>

Recipe booklet for mothers. 2011. Cambodia.

For young people learning about hunger, malnutrition and food and nutrition security

Feeding minds, fighting hunger. A worldwide multi-media education and advocacy initiative to create greater awareness and understanding of the issues of hunger, malnutrition and food and nutrition insecurity.

http://www.feedingminds.org/fmfh/home_new/en

The Right to Food: A window on the world. 2007 A storybook for children and young people and a resource and activity guide for teachers and youth leaders on the right to be free from hunger and an animated website.

http://www.feedingminds.org/info/info_cartoon.htm

Eating well for good health. 2011. Basic lessons on good nutrition and healthy diets.

<http://typo3.fao.org/testsite/nutritionlessons>



For capacity development

Reports on a capacity assessment of nutrition education in Africa: final report and seven country case studies

<http://www.fao.org/ag/humannutrition/nutritioneducation/69725/en/>

In preparation: tools for in-country nutrition education capacity needs analysis

Nutrition capacity assessment in Malawi

<http://www.fao.org/ag/humannutrition/21655-0adbb284991dd571e3a35a4c4f9c01f8d.pdf>.