

Report of the

**Brainstorming Meeting
on the development of a framework
on the Nutrition-Friendly Schools Initiative**

*27-28 February 2006
Montreux, Switzerland*



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1. Introduction

Background

Obesity and other nutrition-related diseases are increasing significant causes of disability and premature death worldwide. For the first time in history, the problem of overweight and obesity have reached epidemic proportions globally. Not only are overweight and obesity increasing worldwide at an alarming rate, but both developed and developing countries, including low- and middle-income countries, are seriously affected.

Furthermore, there has been a rapid rise in the numbers of children affected by excess body weight, both in developed countries and in countries in economic transition. Some groups of children may be at particular risk of obesity due to their social, economic or ethnic status. In some countries, the epidemic of overweight and obesity among children sits alongside continuing problems of undernutrition and various micronutrient deficiencies (especially of iron, vitamin A, iodine and zinc), creating a 'double burden' of nutrition-related ill health. These issues are often perceived to be separate. However, in reality both are often rooted in poverty and co-exist in communities, and even the same households, in most countries. While undernutrition kills in early life, it also leads to a high risk of disease and death later in life. The double burden of nutrition-related ill-health has common causes, such as inadequate foetal, infant and young child nutrition followed by exposure to unhealthy dietary and physical activity patterns.

Therefore, based on the principle that effectively addressing the increasing global public health problem of the double burden of nutrition-related ill-health requires common policy options, the Nutrition-Friendly Schools Initiative, which is developed as a follow-up to the WHO Expert Meeting on Childhood Obesity (Kobe, Japan, 20-24 June 2005), will formulate and implement integrated intervention programmes to improve the nutritional status of school-age children and adolescents targeted in the school setting, bringing together on-going efforts and work of all concerned agencies and partners.

Rationale

Improving the nutritional status of school-age children and adolescents is an effective investment for the future generation, as well as for combating the development of obesity and other nutrition-related chronic diseases later in their lives. Schools offer many opportunities to promote healthy dietary and physical activity patterns for children and are also a potential access point for engaging parents and community members in preventing their own and school-age children's and adolescents' malnutrition in all its forms, i.e. undernutrition, micronutrient deficiencies, and obesity and other nutrition-related chronic diseases. The universality of the school setting for gaining access to children makes it highly relevant to global efforts to combat the increasing public health problems of the double burden of under- and over-nutrition. The Nutrition Friendly Schools Initiative (NFSI) will be built on the on-going work and efforts of WHO's Global School Health Initiative (i.e. Health Promoting Schools), UN agencies joint Focusing Resources on Effective School Health (FRESH) initiative, UNICEF's Child Friendly Schools Initiative, joint UNICEF and WFP Essential Package as well as other relevant school-based programmes being implemented by concerned partner agencies.

Objectives

The objectives of the brainstorming meeting held in Montreux, Switzerland on 27-28 February 2006 (see Annex 1 for the list of the participants) were to:

1. begin the dialogue with other partner agencies through reviewing on-going work;
2. review the evidence of effective school-based intervention programmes to address school-age children's and adolescents' malnutrition in all its forms; and
3. initiate the development of the framework on the Nutrition-Friendly Schools Initiative.

2. Nutrition-Friendly Schools Initiative (NFSI) in the Context of One WHO Nutrition Agenda

Through the recent organization-wide strategic review, WHO re-defined its strategic objective of One WHO Nutrition for Health and Development and aims at building and implementing a science-based, comprehensive, integrated and action-oriented "Nutrition Agenda" at global, regional and country levels that addresses the whole spectrum of nutrition problems towards attaining the Millennium Development Goals (MDGs) and other nutrition-related international commitments.

Towards this aim, WHO's core function is to provide Member States and the international community with science-based norms, standards, recommendations and technical guidance as well as to provide operational support to Member States for building their capacity in identifying problems and best policy options for addressing them, implementing the required interventions, monitoring progress and assessing impact.

To meet this challenge, WHO identified four major programmatic areas of work: 1) Growth Assessment and Surveillance; 2) Country Focused Nutrition Policies and Programmes; 3) Reduction of Micronutrient Malnutrition (as a cross-cutting function that provides input into the other areas of work); and 4) Nutrition in Development and Crisis.

These programmatic areas of work are implemented through the following 10-step Rapid Action Plan which includes the commitment to provide support for establishing nutrition-friendly schools:

- Building national capacity to develop food and nutrition policies
- Providing diagnostic reviews and country nutrition profiles
- Providing knowledge-based advisory services to policy makers and programme managers through practice communities
- Promoting optimal fetal growth and development
- Improving infant and young child feeding practices and the care of severely malnourished children
- Recommending vitamin and mineral requirements for children up to three years
- Implementing guidelines on food fortification
- Developing scientific evidence, assessment and policy guidelines on obesity and nutrition in transition
- Establishing nutrition-friendly schools
- Ensuring the integration of nutrition into responses for people living with HIV/AIDS and people affected by conflicts and crisis

3. Review of existing school-based programmes implemented by partner agencies¹

The FRESH Initiative

The Focusing Resources on Effective School Health (FRESH) Initiative was launched at the World Education Forum in Dakar, Senegal in April, 2000, by UNESCO, UNICEF, WHO, and the World Bank. Poor health and malnutrition are important underlying factors for low school enrolment, absenteeism, poor classroom performance, and early school dropout, as reflected in the World Declaration on Education for All. Programmes to achieve good health, hygiene and nutrition at school age are, therefore, essential to the promotion of basic education for all children.

This interagency initiative has identified a core group of activities, each already recommended by the participating agencies, that captures the best practices from programme experiences. It was based on the idea that focusing initially on these activities would allow concerted action by the participating agencies, and would, therefore, ensure consistent advice to country programmes and projects. The focused actions were seen as a starting point to which other interventions may be added, as appropriate. Furthermore, it was intended that the actions also contribute to existing agency initiatives. They are an essential component of the “health promoting schools” initiative of WHO and of global efforts by UNICEF, UNESCO, the World Bank and other FRESH partners to make schools effective as well as healthy, hygienic and safe. Overall, the inter-agency action is perceived as giving a FRESH Start to improving the quality and equity of education.

The FRESH Initiative includes the following four core components that should be made available together, in all schools:

1. Health-related school policies
2. Skills-based health education
3. Provision of safe water and sanitation – the essential first steps towards a healthy physical, learning environment
4. School-based health and nutrition services

The supporting activities which provide the context in which the interventions can be implemented include:

- Effective partnerships between teachers and health workers and between the education and health sectors
- Effective community partnerships
- Pupil awareness and participation

More information can be obtained from the FRESH website (<http://www.freshschools.org/>).

¹ Unfortunately the representative of the World Bank was unable to participate in the meeting. However, it was requested to include the information on some relevant school-based activities which the World Bank is currently implementing in this meeting report for reference (see Annex 2)

FAO's Activities in Nutrition Education in Schools

FAO recognizes the important contribution that schools can make in countries' efforts to overcome hunger and malnutrition. To support these efforts, FAO's Nutrition and Consumer Protection Division develops and promotes innovative strategies and materials to assist Member Countries to plan and implement nutrition education in schools. The aims are to improve the health and nutrition of school children and to encourage lifelong healthy eating habits and lifestyles among children and adolescents. In collaboration with partner agencies, FAO promotes strategies to enable children to access safe and nutritious food within the school environment, the family and the community, and provides the information, education and skills needed to enable children and their families to choose healthy diets and to practice lifelong healthy eating habits. Nutrition education in schools has a greater impact and is more sustainable if it is part of a programme involving the whole school and tied to activities with the parents and the community. Cross-sectoral collaboration among education, agriculture, health and community services is promoted and emphasis placed on addressing local dietary needs, looking at available foods and local food and dietary practices.

FAO's current focus in school nutrition, including technical assistance provided to Member Countries, is comprised of:

- the development of comprehensive action programmes for school nutrition education, including classroom curricula;
- the development of school gardens as a platform for learning about healthy food and nutrition; and
- raising awareness about hunger and malnutrition in the world.

Information on FAO nutrition education materials and projects can be found on FAO's Nutrition website: http://www.fao.org/ag/aqn/nutrition/education_schools_en.stm

A recently published resource package, *Nutrition Education in Primary Schools (NEPS): A Planning Guide for Curriculum Development*, was introduced. This two-volume resource package is a manual for governments and school systems wishing to establish effective nutrition education programmes and curricula in schools and is suitable for any school or education system and fits particularly well with the approach and actions of Health Promoting Schools. The resource package also contains a poster-size Classroom Curriculum Chart, which provides learning objectives for nutrition education in primary schools in developing countries.

Joint UNICEF/WFP Essential Package

Both UNICEF and WFP are closely linked in their work due to their strong presence in the field. Therefore, in order to identify joint strategies to improve the health and nutrition of school-age children, particularly girls, in 2002, UNICEF and WFP entered into partnership to collaborate through an integrated package of cost-effective interventions. Subsequently, *the Essential Package* to improve the health and nutritional status of school-age children was developed encompassing the following twelve interventions:

1. Basic education
2. Food for education

3. Promotion of girls' education
4. Potable water and sanitary latrines
5. Health, nutrition and hygiene education
6. Systematic deworming
7. Micronutrient supplementation
8. HIV and AIDS education
9. Psychosocial support
10. Malaria prevention
11. School gardens
12. Improved stoves

The Essential Package follows the principles of the Framework for Action developed at the World Education Forum in Dakar, Senegal in April, 2000 and promotes the equal opportunity for education to everybody. Ensuring good health, nutrition and hygiene in schools is essential for achieving this goal. Integration of school feeding into comprehensive school health programmes and use of fortified foods are two examples of the approach.

This partnership initiative also includes a sensitization campaign targeting communities and special groups (e.g. mothers' clubs) as the improvements and achievements would not be sustained without strong awareness of the merits of education, sanitation and hygiene.

WHO's Activities related to School Nutrition

WHO Global School Health Initiative: Health Promoting Schools

WHO's Global School Health Initiative, launched in 1995, seeks to mobilize and strengthen health promotion and education activities at the local, national, regional and global levels. The Initiative is designed to improve the health of school-age children, school personnel, families and other members of the community through schools.

The goal of the Initiative, guided by the Ottawa Charter for Health Promotion (1986), the WHO's Expert Committee Recommendation on Comprehensive School Health Education and Promotion (1995) and the Jakarta Declaration of the Fourth International Conference on Health Promotion (1997), is to increase the number of schools that can truly be called "Health-Promoting Schools". Although definitions will vary, depending on need and circumstance, a Health-Promoting School can be characterized as a school constantly strengthening its capacity as a healthy setting for living, learning and working. To this end, the following nine conceptual areas of action were identified:

1. Skills based health education
2. Youth-friendly health services
3. Healthy environment
4. Healthy eating/nutrition
5. Physical activity
6. Policies
7. Management and teaching practice
8. Health promotion for staff
9. School/community projects

Regional Networks for the development of Health-Promoting Schools have been initiated in Europe, Western Pacific, Latin America and the Caribbean.

Nutrition in Adolescence: Possible Interventions

Activities being implemented by the WHO Department of Child and Adolescent Health and Development were introduced including the recently published documents. These were: 1) *Should adolescents be specifically targeted for nutrition in developing countries? To address which problems, and how?* and 2) *Nutrition in Adolescence – Issues and Challenges for the Health Sector*⁹.

Issues related to key nutritional problems that affect adolescents and some of the main risk factors and their interaction with other health problems and life events were discussed. The main nutritional problems identified include: 1) micronutrient deficiencies (Iron deficiency and anemia, Iodine deficiency, Vitamin A deficiency), 2) undernutrition and stunting, and 3) obesity and other nutrition-related chronic diseases.

Adolescents are far from being homogeneous groups, in terms of development, maturity and lifestyle. However, it was emphasized that adolescents are a nutritionally vulnerable group in many ways and that unless there are explicit programmes and policies and priorities for adolescent nutrition at country level, key issues may not be adequately addressed and in particular, large groups of adolescents may be missed. There is also increasing evidence that programmes targeting adolescents are not effective when they stress negative behaviours to avoid, rather than promoting positive behaviours. Furthermore, it was suggested that school-based or community-based intervention programmes had positive outcomes because of their holistic approaches.

4. School-based intervention programmes: Best practice for prevention of childhood obesity and related risk of chronic diseases

A synthesis review, encompassed a comprehensive search of medical/academic and grey literature and the Internet covering the years 1982 to 2003, identified areas for action, opportunities for programme development and research priorities to inform the development of best practice recommendations that would reduce obesity and chronic disease risk in children and adolescents.

The evidence reviewed indicates that current programmes lead to short-term improvements in outcomes relating to obesity and chronic disease prevention with no adverse effects noted. This supports the continuation and further development of programmes currently directed at children and adolescents, as further evidence for best practice accumulates. Above all other settings studied in this synthesis, schools emerged as a critical setting for programming where health status indicators, such as body composition, chronic disease risk factors and fitness, can all be positively impacted. Actual engagement in physical activity emerged as a critical intervention in obesity prevention and reduction programmes. The majority of programmes intervening on nutrition reported positive outcomes, particularly in primary school settings.

It was noted that involving stakeholders in programme design, implementation and evaluation could be crucial to the success of interventions, helping to ensure that needs are met. Furthermore, programme leaders and facilitators who understand the cultural and social context of the target population can be a key element in effectiveness as they help in creating environments that are more supportive for positive behavioural changes. Finally programmes require sustained long-term resources to facilitate comprehensive evaluation that will ascertain if long-term impact such as sustained normal weight is maintained. There is a critical need for the development of consistent indicators to ensure that comparisons of programme outcomes can be made to better inform best practice.

5. Strengthening the evidence-base for interventions to improve child health and well-being and reduce overweight and obesity

Two reviews on the prevention of childhood obesity were presented. One was an updated Cochrane review and the other one was The National Institute for Health and Clinical Excellence (NICE, UK), guidance on management of obesity.

The main objective of the Cochrane review was to assess the effectiveness of interventions that focused on diet, physical activity and/or lifestyle and social support, and that were designed to prevent obesity in childhood. The review found that although there is a challenge to have impact on body weight among overweight/obese subjects, behavioral changes like improvement in dietary intake and physical activity level were observed. Theoretical framework was lacking in most of the studies, and more comprehensive involvements, including schools and/or parents, did not often take place.

NICE review included studies that aimed to prevent obesity in school children, or to improve diet and/or physical activity. According to NICE food choices (e.g. from vending machines) of students could be favorably modified through a whole school approach. Breakfast clubs were shown to be successful in reaching families that experiences social exclusion and had small but beneficial, effects on behavior, dietary intake, health, social interaction, learning, and attendance. There was also a moderate evidence that prevention of overweight can be facilitated by introducing interesting and innovative physical activity options (e.g. dancing) to children, which will reduce television and computer game use.

6. Discussions

After reviewing in details on-going school-based frameworks and programmes being implemented by partner agencies, common key elements were extracted. Furthermore, key factors and elements for effective intervention programmes and approaches were also identified from the scientific and systematic reviews undertaken to address the prevention and treatment of overweight and obesity among children and adolescents. Then pulling together and streamlining these identified key elements and factors, the framework of the Nutrition-Friendly Schools Initiative (NFSI) was developed by participating agencies and experts as described in Annex 3. It was agreed that the elements included in the framework of NFSI need to be further elaborated to provide more specific and clearer guidance.

The agreed objectives of the NFSI are to:

1. provide a framework for designing school-based intervention programmes which address the double-burden of nutrition-related ill health; and
2. serve as a stimulating mechanism for inter-connecting the various on-going school-based intervention programmes addressing malnutrition in all its forms.

It was further agreed that the ultimate outcomes of NFSI is to have school-age children and adolescents who:

- enjoy healthy eating;
- are fond of being active; and
- feel good about her/himself.

Some important questions and concepts that were brought up at the meeting for further consideration when elaborating the framework of NFSI include:

1. Need for multisectoral/multistrategic coordinated action and seeking synergy within them and in the existing programmes;
2. Need for community involvement/student involvement from the planning stage;
3. Development of efficient and clear communication that will also disseminate understanding of common terms used in the field (e.g. double burden);
4. Need for developing evaluation criteria for assessing schools;
5. How to evaluate the process and outcomes;
6. How to reach children not attending schools;
7. How to ensure sustainability of the NFSI;
8. Evaluation of healthy eating habits in different school settings;
9. Need to ensure that food safety issues including safe water are reflected in improved nutritional status (i.e. through elimination and/or decrease in diarrhea events);
10. How to evaluate health physical activity patterns; and
11. How to improve awareness and knowledge about healthy eating and active living.

7. Action to be taken for next steps

The following proposed next steps and process were considered:

1. Development of the intersectoral elements for implementing NFSI through:
 - Brainstorming session to develop elements for the framework of "Nutrition Friendly Schools Initiative" (27 - 28 February 2006)
 - Outcomes of the meeting to be reported at:
 - EURO School Nutrition meeting (10-12 March 2006)
 - The United Nations Standing Committee for Nutrition (SCN) Working Group (during the week of 13 -17 March 2006)
2. Forming of a multi-agency collaboration to develop NFSI to tackle the double-burden of nutrition problems among school-age children & adolescents:

At the SCN Working Group meeting in March 2006
3. Further development and field-testing of the framework in selected countries (April 2006 – Oct/Nov 2006)
4. Review of the field-testing of the framework (December 2006)
5. Updating and modification of the framework, if necessary, based on the review (December 2006 – January 2007)
6. Launching and implementation of NFSI (January 2007 onwards)

Annex 1: List of participants

Members

- Ms C. Aldinger, Project Director, Education Development Center, Health and Human Development Programs, Newton, MA, USA
- Dr M.W. Bloem, Chief, Nutrition Service, Policy, Strategy and Programme Support Division, World Food Programme (WFP), Rome, Italy
- Dr D. Bundy*, Lead Specialist, School Health and Nutrition, The World Bank, Washington, DC, USA
- Ms J.S. Conhye-Soobrayen*, Project Officer, School Health and HIV/AIDS, United Nations Educational, Scientific and Cultural Organization (UNESCO), Paris, France
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- Dr M. Flynn, Food Safety Authority of Ireland, Dublin, Ireland
- Dr P. Glasauer, Nutrition Officer, Nutrition and Consumer Protection Division, Agriculture, Biosecurity, Nutrition and Consumer Protection Department, Food and Agriculture Organization of the United Nations (FAO), Rome, Italy
- Ms E. Muehlhoff, Senior Officer, Nutrition Education, Nutrition and Consumer Protection Division, Agriculture, Biosecurity, Nutrition and Consumer Protection Department, Food and Agriculture Organization of the United Nations (FAO), Rome, Italy
- Dr R. Shrimpton, Technical Secretary, United Nations System Standing Committee on Nutrition (SCN), Geneva, Switzerland
- Professor C. Summerbell, Assistant Dean for Research and Development, School of Health and Social Care, University of Teesside, Teesside, England
- Dr U. Uusitalo, Nutrition Unit, National Public Health Institute, Helsinki, Finland

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- Dr A. Briend, Medical Officer, Child and Adolescent Health and Development, Family and Community Health, WHO, Geneva, Switzerland
- Dr D. Costa Coitinho, Director, Nutrition for Health and Development, Noncommunicable Diseases and Mental Health, WHO, Geneva, Switzerland
- Dr C. Nishida, Scientist, Nutrition for Health and Development, Noncommunicable Diseases and Mental Health, WHO, Geneva, Switzerland
- Dr C. Tukuitonga, Coordinator, Surveillance and Population-based Prevention, Noncommunicable Diseases and Mental Health, WHO, Geneva, Switzerland

* *unable to attend*

Annex 2: Relevant school-based programmes implemented by the World Bank

More than 200 million school years and 630 million IQ points are lost each year because of the poor health and nutritional status of school-age children. The World Bank supports client countries to achieve the Millennium Development Goals and recognizes that the MDG for Universal Primary Education can only be attained if school-aged children are healthy and well-nourished. Because school-age children have the lowest prevalence of HIV infection, compared to any other age group, a major focus has been to integrate interventions to improve the Education's response to HIV/AIDS, particularly in the Africa region.

Policy level--inclusion of activities to address the transmission of HIV/AIDS and the health and nutrition of school-age children in:

- government planning (PRSPs, national development strategies, Ministry of Education policies); and
- the World Bank's planning (Country Assistance Strategies, economic and sector work).

Project and program levels--inclusion of HIV prevention and SHN activities (providing a low-cost package of health and nutrition services/interventions, curriculum development on healthy living, mitigating high-risk behaviors and life skills, pre- and in-service training for teachers, information sharing with the community on HIV prevention and good health and nutrition practices, supportive supervision, monitoring and evaluation) in:

- education projects,
- education SWAps; and
- Poverty Reduction Strategy Credits.

In addition, the World Bank, in keeping with its comparative advantage to facilitate multi-sectoral synergies, supports work in other sectors (e.g., health, water and sanitation, agriculture) to improve the country's response to HIV and poor health and nutrition, including diversifying the diet, of school-age children.

Annex 3: NFSI Framework and its Minimum Criteria

- 1. Written Nutrition-Friendly School policy**
 - Rationale (why)
 - (Under nutrition, overweight/obesity & other nutrition-related chronic diseases, physical activity, etc.)
 - Objectives (what & when)
 - (Short-term, long-term goals, etc.)
 - Strategic approaches (how & who)
 - (Whole school approach contributing to healthy living and healthy lifestyles, description of processes, organizational structure, roles & responsibilities, rights/equity/non-discrimination, etc.)

- 2. Awareness and capacity building of school community**
 - Dissemination of Nutrition-friendly School policy
 - School staff (teacher, administrative staff, nurses, canteen staff, etc.) training
 - Activities for family and community involvement & outreach (including PTA)

- 3. Curriculum development and modification**
 - Culturally appropriate nutrition education & food preparation integrated into curriculum at all age levels
 - School gardens and school meals as learning resources
 - Age, sex and culturally appropriate physical education curriculum
 - Space and time for physical activity breaks in curriculum
 - Healthy living and life-skills education curriculum (alcohol, smoking, family planning, disease prevention, etc.)

- 4. Supportive school environment**
 - Availability and access to healthy food & beverages
 - (food provided by school & brought to school)
 - Access to appropriate space and opportunity for physical activity (e.g. availability of play ground, etc.)
 - Positive messaging towards nutrition and active living
 - Absence of advertising & marketing of foods & beverages
 - Access to clean & safe drinking water
 - Availability of sanitary latrines, especially for girls
 - Promotion of safe hygiene behaviour
 - Affirmative action against bullying, stigma, discrimination (against body size, shape, food choices, physical activity patterns, etc.)

- 5. School nutrition and health services**
 - Food & beverages to meet defined nutritional standards when provided by school
 - Adequate catering facilities (hygiene, safe water, storage, improved stoves)
 - Availability of supervised eating place
 - Supportive school health and psycho-social services & referral (e.g. micronutrient supplementation, deworming, diarrheal prevention, malaria prevention, HIV/AIDS prevention, counselling services etc.)
 - Regular monitoring of nutritional status