

Nutriview 2006/2

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Nutriview is a quarterly newsletter on the role of micronutrients in nutrition and health. It is published by DSM Nutritional Products Ltd, Basel, Switzerland, as a service to health-care professionals and science communicators. The findings, interpretations and conclusions expressed in **Nutriview** are those of the authors, and are not necessarily shared by the Publisher.

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■ Editorial:

Ready to lead the way?

It needs more than a profound knowledge of nutrition science to reduce the prevalence of malnutrition in the world. It takes people who are ready to step out and make an extraordinary effort to promote change; charismatic individuals who apply their authority, skills and perseverance to activate the masses and move towards the desired goals.

Spurred by a growing concern that we may never be able to control malnutrition unless more people are motivated to take on such a leadership role, numerous

organizations around the globe have joined forces to create Nutrition Leadership Programs. The idea was initiated in the 90's by the Food and Nutrition Program of United Nations Universities (UNU-FNP) and the International Union of Nutrition Sciences (IUNS). Support is also provided by regional nutrition societies, academic centres and the private sector. Today, seminars are held annually in Europe (since 1994), USA (since 1997), Latin America (since 1997), Africa (since 2002) and Southeast Asia (since 2002).

These programs provide an opportunity for young nutrition scientists to develop their skills in advocacy, communication, team building and leadership. As the number of places is limited, it is important that interested institutions identify, nominate and fund suitable candidates. They can also contribute to the success of training by sharing their know-how and by giving program graduates a chance to gain experience in real-life situations. You can find out more about these programs at the addresses shown below. – A. Bowley ■

Europe

The European Nutrition Leadership Programme is organized by leading European nutritionists in close collaboration with Wageningen University, European nutrition organizations and the food industry (Danone, Kraft Foods, Nestlé and Unilever). Thirty participants (aged 35 or younger) are selected each year from final-year PhD students, postdoctoral fellows, the food industry and government.

The 2006 seminar was held on March 8–16 in Luxemburg. The next seminar is scheduled for March 7–15, 2007. The deadline for applications is November 15, 2006. For more information, see: <http://www.enlp.eu.com/> or contact Mrs Duym-Brookman, Division of Human Nutrition, Wageningen University, P.O. Box 8129, NL-6700 EV Wageningen. Email: lous.duym@wur.nl.

USA

The Nutrition Leadership Institute is a program of the Dannon Institute to equip outstanding nutrition graduates from the USA, Canada and Mexico with a global perspective and the skills needed to help them become more effective leaders. The five-day program combines inspiring lectures and discussions led by nationally recognized leaders with individual exercises designed to help set and achieve personal goals, and a variety of group-oriented activities that are led by professional leadership trainers.

Twenty participants are selected from applicants who received a PhD or equivalent degree in a nutrition-related field within the last three years, based on evidence of leadership potential, quality of graduate training program and research, and a letter detailing how this leadership training will help meet the applicant's career objectives. The next Dannon Nutrition Leadership Institute will be held June 2–7, 2007. For more information, see: <http://www.dannon-institute.org/>

Latin America

The Fourth Latin American Nutrition Leadership Training Workshop will be held on November 7–12, 2006, in Florianópolis, Brazil, immediately before the Latin American Congress of Nutrition.

Candidates from all Latin American countries who wish to participate should be sponsored by two recognized leaders in nutrition and should submit their application before May 31, 2006 (<http://www.oxfordeventos.com.br/tallernutricion/>). Applicants should be not older than 40 years, and have at least a Master of Science or equivalent degree (preferably PhD) in nutrition or a related field. For more information, visit: <http://www.slanbrasil.org/> or contact Dr Regina Fisberg (rfisberg@usp.br).

Southeast Asia

The South East Asian Nutrition Leadership Program is aimed at empowering Asian nutritionists and other professionals in nutrition-related fields from academia, government, industry and non-government institutions to become effective leaders. The intensive 5-day seminar convenes once a year at the Regional Center for Community Nutrition in Jakarta, Indonesia. The activities are arranged in such a way that participants are able to gain working experience in different styles of collaboration and leadership, as well as in prioritizing tasks under time pressure. About 15% of the time is allocated to formal and informal lectures on nutrition topics.

Due to lack of adequate funding, the seminar for 2006 has been cancelled. For more information, contact the Program Director Dr Siti Muslimatun (smuslimatun@seameo-rccn.org).

Africa

The fifth African Nutrition Leadership Programme will be held at the Raaswater Resort, North West Province, South Africa on November 1–10, 2006 (see announcement on page 5). The twenty-five participants will be selected from the applications received before May 15, 2006. Candidates who have been accepted can apply for sponsorships through the program organizers. Plans are underway to host this seminar in other African countries in the future. For more information visit <http://www.africannutritionleadership.org/>

■ Feature:

New nutrition information services in China

A Chinese edition of Nutriview

Beginning this year, Nutriview will be published in Chinese, as well as in English and Spanish. The Chinese edition will be coordinated by Ying Cheng, Program Manager at DSM Nutritional Products, China, and edited by Professor Junshi Chen, Head of the Expert Advisory Committee on Food Safety, Chinese Ministry of Health; Chair of the National Food Hygiene Standards Committee, Chinese Ministry of Health; Member of WHO Expert Advisory Panel on Food Safety; member of FAO/WHO Joint Expert Committee on Food Additives and Food Contaminants (JECFA); Adjunct Professor, Division of Nutritional Sciences, Cornell University, USA and Chinese University of Hong Kong; President of Asian Society of Toxicology; and Honorary President of the Chinese Society of Toxicology.



Professor Junshi Chen will edit the Chinese version of Nutriview

Junshi Chen graduated from the Beijing Medical College in 1956 and engaged in nutrition and food safety research for more than 40 years at the Institute of Nutrition and Food Safety, Chinese Centre for Disease Control and Prevention (the former Chinese Academy of Preventive Medicine), Beijing. In 1964-68, he underwent post-graduate training in pharmacology at the Institute of Materia Medica, Chinese Academy of Medical Sciences. In 1980-81, he had advanced training in nutrition and food toxicology as visiting scholar in the

Department of Toxicology, Albany Medical University, USA and the Department of Nutrition, Cornell University, USA. He has conducted large epidemiologic studies on selenium and Keshan disease, diet, nutrition and chronic diseases, and total diet study in China, and on the protective effects of tea in cancer. He has published nine books and more than 120 articles in peer-reviewed journals, and received several science and technology awards from the Chinese Ministry of Health..

Ying Cheng has an MSc in Public Health from South Denmark University and a Bachelor of Economics degree. Before joining DSM Nutritional Products, she worked for the Public Nutrition and Development Centre of China (PNDC) as division chief, scientific and technology activities planning division. She cooperated with the Asia Development Bank (ADB) and the United Nations International Children's Emergency Fund (UNICEF) in the Country Investment Plan on Nutrition program, and was involved in the development of the flour fortification program for China.



Ying Cheng, Program Manager at DSM Nutritional Products, China, will coordinate the translation and distribution of Nutriview in China

DSM creates nutrition information centre

To improve a nation's nutritional status, it is important to ensure widespread public awareness about the need for a healthy diet, and to improve individuals' nutrition knowledge. To help achieve this goal, DSM Nutritional Products in China has

established the DSM Nutrition Information Centre (DNIC) in Beijing. The long-term vision of DNIC is to provide sufficient nutrition information and education to the public, and set up proper standards and guidelines for the nutrition industry. This will be achieved through a series of public awareness programs, as well as a web site (<http://www.dnic.com.cn>)

The DNIC is governed by an Advisory Board of distinguished scientists chaired by Professor Han Chi of the Nutrition and Food Safety Department at the Chinese Centre for Disease Control and Prevention. Other members include Professor Chen Xiaoshu and Yang Xiaoguang from the same department, Professor Liu Qiwei from Shanghai Nutrition Society, and Professor He Zhiqian from Zhongshan University.



Chair of the DNIC Advisory Board Professor Han Chi

The Advisory Board held its first meeting at the Howard Johnson Plaza Hotel, Shanghai, on June 26, 2005. The meeting was also attended by Dr Klaus Kraemer (Sight & Life), Dr Kenny Koh (DSM Nutritional Products China) and David Townsend (DSM Nutritional Products China).

The DNIC hopes it will soon be recognized both by the public and industry as a major, reliable source of nutrition information and support. ■

■ Feature:

Accessing nutrition research data

The Internet offers unique strengths as a medium for communication. It is not an easy task, however, to find specific information there that is reliable, up-to-date and free of charge. To keep up with progress in international nutrition research, it is usually necessary to pay for access to published articles. For researchers in developing countries, the costs can be prohibitive. Fortunately, there have been several initiatives in recent years that enable researchers in low-income countries to gain access for a small fee or even none at all. A brief introduction to some of these programs is shown below.



enLINK

The enLINK digital library is a concerted action between the Nestlé Foundation for the study of problems of nutrition in the world, Ovid Technologies Inc. and a small group of publishers who recognize the importance of the promotion of nutrition research in low-income countries targeted at individual researchers. It is the only electronic library that offers selected, high-impact, nutrition-related information free of charge to individual researchers in human nutrition in low-income countries. The name stands for 'electronic nutrition link', a term that goes back to the old English verb 'to enlink', which means 'to chain together' or 'to connect as by links'. The library currently offers access to eleven nutrition journals. Abstracts are searchable by all visitors, but only registered users have access to the full text. A core list of important internet links and other resources in human nutrition are accessible to all users.

Important: Full text access is only available to registered researchers in human nutrition from low-income countries. Criteria for registration are the country where the application comes from (only low-income countries), the CV of the applicant (must be actively involved in human nutrition research), the characteristics of the academic affiliation (availability of institutional support and library services, general infrastructure). Students are eligible upon special request. An application form for free registration can be obtained and submitted at www.enLINK.org

For further information please contact Paolo M Suter MD, at the Nestlé Foundation in Lausanne (Switzerland) nestle.foundation@vtxnet.ch

HINARI

The Health InterNetwork Access to Research Initiative (HINARI) is an initiative of the World Health Organization in collaboration with 70+ leading biomedical publishers, Yale University Library, the International Association of Scientific, Technical and Medical Publishers (STM), the Food and Agriculture Organization (FAO) and Cornell University, Mann Library. Launched in 2002, HINARI provides free or very low-cost online access to 3000 major journals in biomedical and related social sciences to local, non-profit institutions in developing countries (113 countries are currently eligible). It offers a simple and effective user interface over the web, serving as a gateway to full-text journal articles at partners' websites. Users can search and access full-text articles directly from the Pubmed (Medline) database. The HINARI website is managed and maintained by WHO with support from Yale University Library.

Potential users are required to register with WHO. This can be done online at the HINARI website. HINARI is open free of charge to eligible organizations in Phase 1 countries (countries with an annual GNP per capita of US\$1000 or less). Phase 2 countries (countries with an annual GNP per capita of US\$1000 – 3000) may access the entire collection of journals for an annual subscription of US\$1000 per institution. Eligible categories of institutions are national universities, research

institutes, professional schools (medicine, nursing, pharmacy, public health, dentistry), teaching hospitals, government offices and national medical libraries. All staff members and students are entitled to have access to the journals.

For more information visit <http://www.who.int/hinari/> or email the HINARI Team at hinari@who.int

INASP

The International Network for the Availability of Scientific Publications (INASP) was established in 1992 by the International Council for Science (ICSU) to improve access to information and knowledge through a commitment to capacity building in emerging and developing countries. INASP is a charity that works with partners and networks around the world to encourage the creation and production of information, to promote sustainable and equitable access to information, to foster collaboration and networking and to strengthen local capacities to manage and use information and knowledge.

As a networking organization, INASP partners with information and communication professionals around the world to assist researchers, scientists and educators, as well as health and rural development practitioners in transitional and developing countries to access, create and use information and knowledge. Its philosophy is to work in response to requests and through networking to maximise the synergy between partners. More generally, by sharing experience and facilitating or promoting joint ventures, INASP aims to increase the value-added element of collaborative efforts.

For more information, please visit <http://www.inasp.info> or contact Pippa Smart at: psmart@inasp.info

AJOL

African Journals OnLine (AJOL) is a database of journals published in Africa in a range of academic disciplines. It is intended as a service to provide access to African research, and to give greater international visibility to the participating journals and the research they convey. Journals participate free of charge. Initiated by INASP in 1998, AJOL has

been under African management since 2005. The database currently contains 230 journal titles.

All the material on AJOL is free to view, search and browse, however copyright of all content is retained by the journals or authors. Full-text documents can be ordered in print or electronically. The website has a sophisticated searching tool to help researchers locate articles of interest and relevance to their area of study.

INASP hopes to establish similar on-line journal projects in other regions, particularly in South and Southeast Asia. It also helps to support African journals to publish their full text online, and its Programme for the Enhancement of Research Information (PERI) provides support to researchers around the world through access to information and training and support for the use of information.

For further information, please visit <http://www.ajol.info/index.php/> or contact info@ajol.info

Source

Source is an International Information Support Centre designed to strengthen the management, use and impact of information on health and disability. It is a collaborative venture of the Centre for International Child Health, Healthlink Worldwide, Handicap International and Exchange, a networking and learning program on health communications for development.

Source is designed to meet the information needs of individuals and organizations working in health, disability and development worldwide. These include health workers, researchers and students, nongovernmental and governmental organizations, and disabled people's organizations. As well as operating online, Source also has a physical collection at the Institute of Child Health within the Friends of the Children of Great Ormond Street Library, Guilford Street, London.

Source has a collection of around 25'000 health and disability information resources. These include books, journals, manuals, reports, posters, CD-ROMs, websites and organizations. Many materials are from developing countries and include both published and unpublished literature not readily available elsewhere.

For further information, please visit <http://www.asksource.info/> or contact source@ich.ucl.ac.uk

■ Announcement:

Building Africa's nutrition leaders

On November 1 – 10, 2006, South Africa will again be hosting the African Nutrition Leadership Programme (ANLP) aimed at developing Africa's future leaders in the field of nutrition. The program, led by Professor Johann Jerling (North West University, South Africa) together with a dedicated team of local and international experts, is designed for individuals with experience in any field of human nutrition. Preference is given to candidates under the age of 40 studying or working in Africa, who are final-year PhD students or postdoctoral fellows or have comparable working experience in the broader human nutrition sciences. However, all applications are considered on an individual basis. Applications should be submitted before May 15, 2006.

The initiative to start an ANLP originates from the success of the European Nutrition Leadership Programme, which began in 1994 following the recognition that an aging leadership at all levels of society, including nutrition, is a problem. The aim of the ANLP is to assist with the development of leadership skills in the field of nutrition in Africa. This fits well into existing capacity building initiatives. Special emphasis is given to understanding the qualities and skills of leaders, team building, communication and nutrition information in a broader context, nutrition programming and planning, and to understanding the role of nutrition science in the world around us. Valuable spin-offs of the ANLP have been the development of a professional network and many personal friendships amongst up-and-coming nutritionists on the continent.

To date 80 individuals from 25 African countries from north to south and east to west have participated in this exciting program. The participants came from many different areas of nutrition expertise, including street foods, micronutrient deficiencies, supplementation, child nutrition, community nutrition and HIV/AIDS. In this way, they have been able to share a vast knowledge, skills and experience base, allowing for valuable networking and future joint ventures.

One of the sessions at ANLP involves the development of a declaration of intent for that specific group. It is always an interesting exercise, fascinating to facilitate and to watch as the group pulls together its various views, agendas and dreams to come up with a single united front. I share with you the 2004 Declaration to give you a feel of the great potential and exciting future that I believe is nutrition in Africa:

- We are a generation of Africa's nutritional leaders with a common vision and shared values to improve the nutritional well-being of the people of our continent.
- We recognize Africa's unique problems, challenges and opportunities and are committed through advocacy, collaboration and evidence-based research to reduce food and nutrition insecurity, communicable and non-communicable diseases, and other nutritional challenges.
- We will undertake this in an ethos of integrity, professionalism and mutual respect to ensure sustainability and a life-long commitment.

Africa recognizes that it is a part of the greater worldwide nutrition community and the ANLP aims to grow its contacts and relationships with other similar programs around the world. The International Congress of Nutrition, held in Durban in 2005, saw the first gathering of global participants at a pre-congress workshop and a dinner held during the congress, both of which were a great success.

To summarize the purpose of the ANLP in a single sentence is almost impossible; but a quote from Thomas Huxley almost does it for me: "The rung of a ladder was never meant to rest upon, but only to hold a man's foot long enough to enable him to put the other somewhat higher". – Jane Badham, JB Consultancy, Johannesburg, South Africa ■

Review:

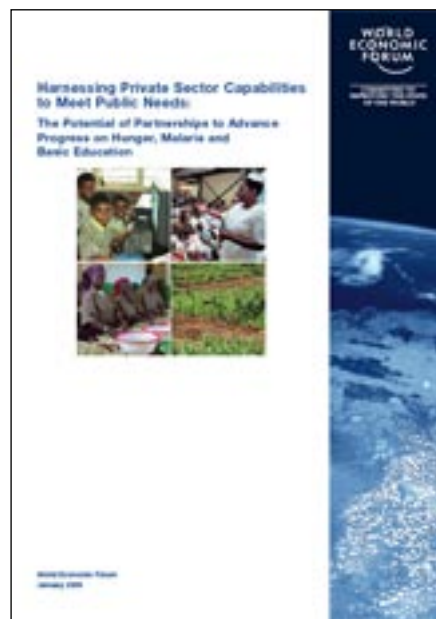
How an integrated approach can eliminate hunger

A recent report by the World Economic Forum [1] examines how public-private partnerships (PPPs) can be applied to three of the most pressing development challenges of our time: hunger, malaria and basic education. Building on previous work, and drawing on the experience of participating companies and experts within the Forum's initiatives, it systematically analyzes how core business competencies intersect with development assistance needs in these areas. The report is intended as a practical tool that companies, governments and others can use to identify new areas of public-private cooperation in development partnerships.

To eliminate hunger, the report says, an integrated approach is needed that addresses poverty, builds markets and infrastructure, boosts agricultural production and nutrition, focuses on health and enables women's empowerment. Collaborative efforts have tremendous potential to bring both practical solutions and political action to hungry communities. The private sector is an essential player in sustaining and nourishing healthy communities. It can generate employment opportunities; create markets; grow, manufacture and distribute food; provide health- and nutrition-related products and services; build and maintain infrastructure, and educate producers and consumers.

According to the report, PPPs can help in the fight against hunger by:

- increasing food production and strengthening market systems in hungry regions (e.g. by sourcing from small-scale producers; by developing and supporting small and medium enterprises for production, processing and distribution of food and agricultural products; by expanding farmers' access to modern products and technologies; by extending essential services and infrastructure to hungry areas; by acting to reduce the spread of HIV/AIDS).
- improving nutrition through fortified foods and consumer education, particularly for mothers and young children.



- strengthening governments' commitment and capacity to act against hunger (e.g. by building public and political support for increased investment in hunger reduction, and by partnering with public agencies and NGOs to strengthen their capacity).

In consultations with the World Economic Forum, experienced practitioners have developed guidelines for successful public-private partnerships (Table 1)

The section on applying core business

competencies to help halve hunger concludes with the observation that "hunger encompasses many issues, but also many business-related opportunities to engage in solving the problem. In rural areas with high levels of hunger, the distribution of agricultural inputs and improvement of market linkages is the essential first step towards boosting food supplies, nutrition and incomes. Second, the high impacts and low costs of micronutrient fortification make it a priority across the board in both rural and urban areas.

Finally, advocacy and strengthening public institutions is a relatively underused opportunity for the private sector to make a significant impact upon hunger. These actions, together with a focus on empowering women, local communities and developing country institutions, will create sustainable solutions to end world hunger".

Source

1. World Economic Forum. January 2006. *Harnessing Private Sector Capabilities to Meet Public Needs: The Potential of Partnerships to Advance Progress on Hunger, Malaria and Basic Education*. The report can be downloaded from the WEF website at: http://www.weforum.org/pdf/Initiatives/Harnessing_private_sector.pdf

Table 1: Guidelines for successful PPPs

- Find motivated partners and agree on common goals, acknowledging different competencies and approaches.
- Choose the partnership model best suited for the goal.
- Identify a well-connected 'champion' to ensure continuity and success of the partnership.
- Create a win-win partnership with measurable benefits and results.
- Define partners' roles and responsibilities clearly from the onset and build capacities to fulfil them.
- Develop strategies for sustainable PPP financing and management in the early stages of partnership planning.
- Focus on meeting the needs of customers and stakeholders, rather than those of external actors such as donors.
- Represent and include all stakeholders in the planning and life cycle of the partnership.
- Agree on clear targets, monitor progress, and agree on an exit strategy where appropriate.
- Manage PPPs as a business unit within the company.
- Provide strong coordinating mechanisms and effective governance for collaborative PPPs.
- Convene public and private stakeholders to catalyse and broker partnerships, share best practices and guidelines, and identify funding sources.
- Conduct consistent and long-term monitoring and evaluation studies to evaluate PPP outcomes.

■ News in brief:

Ascorbic acid improves bioavailability of elemental iron

Hoppe et al. [1] measured the relative bioavailability (RBV) of seven elemental iron powders and ferrous sulfate in three groups of 16 male blood donors. The volunteers were served bread rolls fortified with iron (in one case, electrolytic iron and ascorbic acid in a molar ratio of 6:1) at nine-week intervals in a double-blind randomized crossover study. After each roll, blood samples were drawn every hour for six hours to determine the increase in serum iron concentration.

All the elemental iron powders were significantly less well absorbed than ferrous sulfate (RBV: 0.65–0.36). However, when electrolytic iron was given with 50 mg ascorbic acid, it was equally well absorbed. Ascorbic acid seems to improve the bioavailability of elemental iron even when used at a low molar ratio. If this enhancing effect is confirmed, ascorbic acid could be used together with elemental iron as a fortificant. ■

1. Hoppe M, Hulthén L, Hallberg L. The relative bioavailability in humans of elemental iron powders for use in food fortification. *Eur J Nutr* 2006; 45: 37–44.

Vitamin A status affects pneumonia response to supplementation

To evaluate the effect of vitamin A supplementation on the duration of respiratory signs in children with pneumonia, Rodriguez et al. [1] randomly assigned 287 children aged 2–59 months, admitted to the Baca Ortiz Children's Hospital in Quito (the main pediatric reference hospital in Ecuador) to receive a moderate daily dose of vitamin A or a placebo as an adjunct to standard antimicrobial treatment. Overall, supplementation had no effect on the duration of pneumonia. In children whose vitamin A status at admission was adequate, however (serum retinol >200 µg/L), supplementation reduced the time to remission of respiratory signs by almost half (70 hours compared to 131 hours for those with similar retinol levels who were given the placebo).

Possible explanations for this finding are that the pneumonia of some children might have been less severe or that better nourished children are able to generate

a more effective immune response and use the vitamin A supplement more efficiently to fight the infection. In any case, it confirms the importance of continued public health interventions to reduce or eliminate vitamin A deficiency. ■

1. Rodriguez A, Hamer DH, Rivera J et al. Effects of moderate doses of vitamin A as an adjunct to the treatment of pneumonia in underweight and normal-weight children: a randomized, double-blind, placebo-controlled trial. *Am J Clin Nutr* 2005; 82: 1090–1096.

Philippines food fortification program gets underway

To address micronutrient malnutrition, the Philippines has embarked on a three-pronged strategy of supplementation, nutrition education and food fortification. All strategies are implemented simultaneously to complement one another. However, recognizing food fortification as the most cost-effective and sustainable way to address the problem, the government has introduced mandatory fortification of key staples (the Food Fortification Act of 2000; Republic Act 8976). Fully implemented in November 2004, it calls for the fortification of cooking oil with vitamin A, wheat flour with vitamin A and iron, refined sugar with vitamin A, and rice with iron. It complements the mandatory iodization of all salt sold in the country. Staple foods that meet the mandatory fortification standard set by government are allowed to display the 'Diamond Sangkap Pinoy Seal' on their packaging materials.



Sangkap Pinoy Original and Diamond seals

'Sangkap Pinoy' is a term used by the Department of Health (DOH) for micronutrients added to food to enhance its nutritional quality. The original Sangkap Pinoy Seal Program was officially launched in 1996 to encourage food manufacturers

to voluntarily fortify food products with essential micronutrients at levels approved by the DOH. The Diamond Sangkap Pinoy Seal was added in 2004 to distinguish staple foods fortified according to the new legislation. The seal indicates that the product is recognized by the DOH as a contribution to the elimination of micronutrient malnutrition.

The Food Fortification Strategic Plan, first developed in 2000 and revised for 2005–2010, is based on the lessons learned from past experience in the Philippines and other countries. It aims to establish an environment conducive to partnership among all stakeholders (government, food industry, non-government organizations, donor agencies, academia, laboratories and fortificant suppliers) and a common agenda to control deficiencies of vitamin A, iron and iodine. To achieve this, the new plan takes into account numerous constraints identified with regard to policy, market structure, economy and trade, technology and consumers.

Major achievements so far include the establishment of a public-private-NGO program management structure that includes industry representatives in decision making, publication of the policy and guidelines on incentives, the strengthening of awareness at local government level, provision of training and support in fortification technology, the organization of regulatory and monitoring services at the regional level, and extensive efforts to increase awareness through social marketing and advertising. Philippines President Gloria Macapagal Arroyo has officially declared November 7 every year as Food Fortification Day with the Department of Health as the lead agency in its nationwide observance.

During the introductory phase of the program, its managers have learned that, for a successful implementation of mandatory food fortification, it is important to address industry concerns about its impact, and to provide adequate support throughout the planning and production stages; government agencies must collaborate efficiently, and consumer communications are critical. With this in mind, the government of the Philippines is ready to tackle the next phase. – Information extracted from the web site of the Philippines Food

Fortification Program (<http://www.doh.gov.ph/foodfortification/index.htm/>) ■

Transforming UK school food

After introducing new statutory nutritional standards for school lunches in 2001, the UK government has started efforts to raise the quality of school meals. This includes providing grants that will allow local authorities to develop a coherent approach to food, and covers all aspects of food provision in schools, the reinforcement of healthy eating principles, and training for school cooks. Over the next three years, the government will give grants worth £220 million to schools and local education authorities, so they can build new or upgraded kitchen facilities, and use fresh produce instead of processed and preprepared ingredients. To provide independent support and advice about school meal improvements to schools and parents, £15 million has been allocated to the School Food Trust, while up to £45 million will be used to support healthy eating projects and initiatives for children, parents and communities.

To prevent childhood obesity spiralling out of control, and to improve children's health through a better balanced diet during the school day, the School Food Trust recently advised government ministers that schools should stop selling energy-dense foods and drinks that have no nutritional benefits, in favour of healthier alternatives. Chair of the School Food Trust, Dame Suzi Leather, said that one in eight of the country's children is already obese, and increasingly at risk of chronic diseases such as type-2 diabetes. Unless preventive action is taken, this figure could double by the year 2020. She warned that the new food standards to improve school meals cannot succeed if pupils have unlimited access to chocolate, crisps and drinks that fill them up with sugar and fat during the school day.

The Trust's advice is that new standards should be consistently applied to every food outlet in schools, including breakfast, after-school meals and mid-morning break services provided by caterers, vending machines and tuck shops.

For further information, see the web sites: <http://www.schoolfoodtrust.org.uk/index.php> and <http://www.foodinschools.org> ■

■ Letter to the editor:

Limitations to impact of fortified food

I am a regular reader of Nutriview, and find it very informative on matters of basic nutrition deficiencies and interventions. Currently my interest is mainly centred on nutrition intervention through food fortification to alleviate micronutrient (principally iron and folic acid) deficiencies. In Nutriview 2005/2, one article discussed the alleviation of iron deficiency through fortification of wheat flour. The issue was also abounding with reports from countries that had embraced or planned to embrace the same approach. The article raised concern that although more than 60 countries across the globe had implemented wheat flour iron fortification, it has had limited impact on iron deficiency. The three reasons suggested for this lack of impact were: inadequacies in the types and amounts of iron added, poor quality control and/or weak enforcement of regulations.

There are two other reasons that limit the impact of fortified food, but which maybe apply mainly to Sub-Saharan Africa (SSA):

1. Choice of vehicle: The food fortified has to be part of a regular meal for the main target group, in this case the rural poor. For example, much as wheat flour may be appropriate for the countries of Asia, North and South America and Europe, it will not be appropriate for the countries of SSA, because except for the middle and higher socioeconomic groups, wheat flour does not form a major component of the meals. In addition, few people in these countries eat breads and other baked goods from wheat on a regular basis. Industrially processed cooking oil is again not appropriate because the rural poor most often do not prepare their meals with oil. The main staple foods in SSA are sorghums, millets and root crops (cassava, sweet potato and yam). A choice of these foods or their products will therefore easily make impact on the rural poor. The choice of the food will of course depend on the technological feasibility of loading it with fortificant among other considerations. But even then, the vehicle might not be appropriate countrywide because maybe it is not a popular food, or it is not consumed in the form that is being used as vehicle. Maize is consumed as meal or flour in many SSA countries, but in some of them, there are communities that will cook and eat the intact grain rather than the meal or flour. There might therefore be need to identify more than one vehicle for a country due to this diversity in food habits.

2. Organization of processing: Processing of food, particularly milling of grain like maize, sorghums and millets, and dried cassava in the SSA countries is not all centrally organized. For example, centralized milling of maize in the urban centres mainly serves urban and periurban communities. Small mills based in the villages serve most of the rural populations. Fortification at urban mills will therefore not make any impact in the rural areas. To achieve the required impact, the village mills have to be used. This has, however, to be planned very carefully, because most of the products milled are for the households on contract. A strategy that ensures fortification of all the products milled is needed in order to reach all the people targeted. Management and monitoring such a system looks rather complex, but if there is sufficient will and commitment, especially by governments, it can be effectively implemented.

Finally, the intended impact in food-based nutrition intervention is effectively created through a strategy that is developed with critical analyses and consideration of the food production, processing, preparation practices and dietary habits of the target populations up to the community level. Biofortification seems to be the surest, most cost-effective and sustainable nutrition intervention, especially in the developing countries where small-scale subsistence farming and uniquely decentralized agricultural processing characterize agricultural production. By this approach all the population are reached regardless of the form in which they consume the food vehicle. – Jasper K. Imungi, PhD, Professor of food technology, Department of Food Technology and Nutrition, University of Nairobi, PO Box 29053, Kabete, KENYA. Current address: Agricultural Technology Development and Transfer (ATDT) Project, ISAR, BP 255, Butare, Rwanda ■