Women and children are particularly important targets for nutrition interventions, as more than a third of child deaths have been attributed to maternal and child undernutrition. Effective and safe interventions aimed at addressing maternal and child undernutrition and survival need to be scaled-up in many countries.

The Department of Nutrition for Health and Development in collaboration with other departments in WHO with an interest in nutrition, are developing and updating guidance to help member states and partners in their efforts in making informed decisions on the appropriate actions to improve nutrition among their populations. These efforts are aimed at achieving the Millennium Development Goals, in particular, eradication of poverty and hunger (MDG 1), reduction of child mortality (MDG 4) and improvement in maternal health (MDG 5).

The WHO electronic Library of Nutrition Actions (eLENA) aims to compile and display the most current WHO nutrition guidelines and recommendations, as well as the scientific evidence on which those guidelines and recommendations are based. The eLENA also includes biological and behavioural rationales, invited commentaries on recent systematic reviews prepared by public health experts, and additional resources produced by Member States and global partners. Furthermore, the eLENA will be linked to the Cochrane Library through a collaboration agreement with John Wiley and Sons Inc. The Cochrane Library is a collection of databases that contain high-quality, independent evidence to inform healthcare decision making. Cochrane reviews represent the highest level of evidence on which clinical treatment decisions are based.

The eLENA will serve as an easily accessible web-based tool for policy makers, health workers, international organizations, bilateral agencies, nongovernmental organizations, academicians and other interested actors to access the most up-to-date WHO guidance on nutrition and the information that has led to the development of these recommendations. The current revision of RDA was undertaken after a gap of 20 years. There was a pressing need for a revision from all stakeholders of health and nutrition in view of the versatility of its implications in forming a basis for several national policies and programmes. The following is a summary of recommendations and modifications:

The eLENA will be available on the WHO web site: www.who.int/elena.

Recommended Dietary Allowances (RDAs) for Indians Revised

An expert group constituted by the Indian Council of Medical Research (ICMR) in 2008 has revised and updated the nutrient requirements and dietary allowances for Indians. The revised Recommended Dietary Allowances (RDAs) were released in 2011. This, in fact, was the sixth expert group constituted by the ICMR. The first recommendations were made in 1944 and it was based on recommendations of the Health Committee of the League of Nations in 1937 which were adapted to Indian scenario. Later, the RDAs were modified in early 1960s, then in early 1970s, 1980 and last in 1991.

The current revision of RDA was undertaken after a gap of 20 years. There was a pressing need for a revision from all stakeholders of health and nutrition in view of the versatility of its implications in forming a basis for several national policies and programmes. The following is a summary of recommendations and modifications:
REFERENCE BODY WEIGHT: Earlier, the reference weights for man and woman were 60kg and 50kg respectively. Now, the definition for reference Indian adult man and woman were modified with regard to age (18-29y instead of 20-39y) with a normal BMI and a body weight of 60kg and 55kg respectively.

ENERGY: A reduction of 4-8 % of energy as compared to earlier RDAs has been recommended on account of a lower physical activity level in men. Similarly, reduction was also suggested in all age groups except adolescents. In women the requirement remains the same in view of the increased reference weight. A proportionate increase has been suggested in pregnancy. Among children of 13-17 years, there is an increase in requirements.

PROTEIN: The protein requirement for healthy adult on a well-balanced cereal-legume-milk (animal protein) diet in the ratio (8:0:2.4:1.0) is 0.8 g/kg/day and 1.0 g/kg/day respectively for mean and safe requirements. The recommended daily safe protein allowance for an adult eating a standard Indian diet mostly vegetarian would be 1.0 g/kg/day. Even if the digestibility is lower, at 80%, an almost similar safe requirement of 1.04 g/kg/day would be obtained.

FAT: There was a conscious effort to provide physical activity-based recommendations. The visible fat intake for sedentary, moderate and heavy activity has been set at 25, 30 and 40g/d for adults as against the single level recommended earlier.

DIETARY FIBER: Committee considered recommendations for fiber the first time. A level of about 40g/2000kcal is considered as safe intake.

MINERALS: The recommendations for minerals like calcium, phosphorus, zinc, selenium and iodine have been included as separate chapters. Calcium and Phosphorus: Calcium requirement proposed for adult man and adult woman is 1.5 times the value proposed earlier expert group i.e., 600mg/d for adult man and woman from 400mg/d. For pregnant and lactating women the calcium values proposed is 1200mg/d. For post-menopausal women it is 800 mg/d. The recommended values for phosphorus for all age groups except for infants are 1:1 as calcium. For infants, it is 1.5 times the value recommended for calcium.

Iron: Unlike the earlier Committee which used three tier absorption for adjustment of dietary iron - 3% for men, 5% for women and 8% for pregnant women, the present Committee recommended the use of only two tiers - 5% (men and children) and 8% (all women). Consequently, the RDA for iron has been reduced significantly among all physiological groups.

Zinc: The recommendations for adult man and NPNL woman for zinc is set at 12 and 10 mg/day respectively and recommendations for all physiological groups are also included.

Iodine: Based on intake of iodine through food and as fortified salt, the recommendation of 150µg/day is retained for adults. The recent recommendations of WHO of 250 µg/day for iodine during pregnancy, have also been adopted.

Magnesium: Requirement of magnesium is newly added to the Indian RDA.

Sodium & Potassium: Specific recommendations have been made on sodium, with regard to a safe intake of 2010 mg/day which amounts to 5g/day of salt. The desirable sodium: potassium ratio in mmol from the diet was fixed at 1:1.

Copper, Chromium and Manganese: The RDA for Cu, Cr and Mn have been considered separately in view of their importance.

Selenium: The present Committee recommended 40 µg/day as acceptable intake of selenium.

VITAMINS

Folate: The RDAs have been given in terms of dietary folate instead of free folic acid used by the earlier committee. An increase has been suggested in all the age groups. The recommended RDA of dietary folate is 200 µg for an adult which will translate to around 120µg of synthetic folic acid.

Vitamin A: The present Committee has modified the extent of conversion efficiency of betacarotene to retinol from 1:4 to 1:8 and has retained the previous recommendations on retinol requirements for all groups except pregnant women. To ensure adequacy, it was recommended that minimum 50% RE be drawn from animal sources.

Vitamin D: The Committee retains the earlier recommendations on vitamin D emphasizing the importance of outdoor physical activity as a means of achieving adequate vitamin D status in a tropical country like India. However, under minimal exposure to sunlight, particularly in certain urban groups, like 1-2y old children a specific recommendation of a daily supplement of 400 IU (10 µg) is suggested.

Vitamin E & K: The requirement of alpha tocopherol suggested is 0.8 mg/ g of dietary essential fatty acids. This roughly works out to 8-10 mg tocopherol per day, depending on the edible oil used. The recommendation for vitamin K is 55i g for adults.

ANTIOXIDANTS: Realising the importance of dietary antioxidants, the committee deliberated on the information on consumption of antioxidants and recommended 400g/day of fruits and vegetables. (For more information contact Dr. K. Madhavan Nair, NIN - nairthayil@hotmail.com).
Workshop for field testing of WHO Guiding Principles and Framework Manual for Development of Nutrient Profile Models in Thailand

The Institute of Nutrition, Mahidol University (INMU), Thailand (a WHO Collaborating Centre in food and nutrition) hosted a three-day workshop for field testing of the “WHO Guiding Principles and Framework Manual for the Development or Adaptation of Nutrient Profile Models” during June 13-15, 2011. The overall objective of this workshop was to evaluate the WHO guiding principles and framework manual on developing and adapting nutrient profile model in Thailand through country field-testing process. Nutrient profiling is a scientific method for assessing the nutritional quality of food and beverages. It can be used by national authorities to promote public health dietary goals. An internationally recognized method for nutrient profiling could have a wide range of applications, but it is not known whether the criteria developed for one culture or cuisine, or for one purpose or setting would transfer to another. The workshop was tailored to the needs of the participants and involved a combination of presentations, exercises and group discussions on the guiding principle manual in general and each of the manual’s main sections in particular. Understanding of the process for adapting or developing a nutrient profile model will contribute to develop measures for the risk reduction of non-communicable diseases (NCDs) and for health promotion in Thailand. The model could be validated and implemented for nutrition labelling (front-of-pack labelling) and the development of a standard school lunch. There are other potential applications, namely regulation of food marketing of unhealthy foods as well as nutrition and health claims.

Accomplishments from this workshop are briefly summarized below:

- On one hand, the Thai working team and the participants acquired better understanding of the WHO Guiding Principles and Framework Manual for Development / Adaptation of Nutrient Profile Models, on the other, the WHO experts got an overview of the activities in Thailand using the principles that are relatively similar to WHO’s nutrient profile models.
- WHO experts and participants agreed that the WHO's nutrient profile models could be adopted and used for modifying the nutrition work in Thailand for better efficiency.
- The Thai working team on the Nutrition Profile Workshop agreed that the country needs to have a work plan for implementing these nutrient profile concepts in the ongoing and future nutrition plans and actions.

(For details contact Dr. Visith Chavasith, INMU - nuvca @mahidol.ac.th)

Regional Workshop on Acute Malnutrition in Bangladesh

International Centre for Diarrhoeal Disease Research, Bangladesh (ICDDR,B) in collaboration with WHO, UNICEF and the World Food Program (WFP) hosted a regional workshop on 'Management of Acute Malnutrition' from 12th to 15th June, 2011. The workshop aimed to improve the capacity of public health professionals in South and South-East Asia to manage acute malnutrition.

Participants were drawn from various countries of the region including India, Thailand, Bhutan, Nepal and Sri Lanka. In addition, organisations such as WHO, Government of Bangladesh, ICDDR, B and UNICEF were also represented. The 4-day event provided a good opportunity for health professionals to exchange their experiences and expertise in working with acute malnutrition at various levels and regions.

The Hon’ble Minister, Ministry of Foreign Affairs, Bangladesh, Dr Dipu Moni inaugurated the event.

Although childhood malnutrition is a global problem, the workshop tried to place it in a local context, with participants presenting local problems and solutions. At the same time, participants underscored the gravity of child malnutrition that affects children from all parts of the region.

The workshop provided a platform for participants to discuss research ideas on how to tackle child malnutrition. They stressed that research is not even across the region; hence workshops such as this are all the more important to know the strategies that neighbouring countries are employing.

Finally, the participants stressed the role of government agencies in their respective countries in stepping up and helping fulfill promises. Workshop participants concurred that a holistic approach to tackling child malnutrition is the most effective strategy that could be followed.

Other topics included in the workshop were the presentation of country reports, a practical session on anthropometric measurements, discussion on causes and consequences of acute malnutrition, demonstration of manifestation of acute malnutrition, and a practical session on stabilisation of a child with severe acute malnutrition. (Extracted from: http://www.icddrb.org)

Know your Network Partner – Department of Nutrition, Medical Research Institute, Srilanka

The Department of Nutrition, Medical Research Institute (MRI), Srilanka is the pioneer in conducting nutritional related research in Sri Lanka since 1938.

The Department of Nutrition was founded by Dr. Lucus Nicolas in 1926 in order to calculate the wages in relation to the minimum cost of diet in the country. Later, this task was taken over by the Central Bank.
During the many dietary surveys, many nutrient deficiencies were identified especially among children and mothers. In 1938, The Department of Nutrition was established at the De Soyza Bacteriological Institute (Now MRI) for looking into the major nutritional problems prevailing in the country. Dr.Nimalasuriya (MRCP) became the first Sri Lankan Director in 1945. The objectives of the Department are - To ensure high quality assessments of macro and micronutrient status and associated factors conducted; providing support to increase effectiveness of nutritional interventions implemented by the Ministry of Health through. As part of its surveillance and operational research, the department takes measures to increase availability and accessibility of nutritious foods in Sri Lanka; provide partnership for macro and micronutrient deficiency reduction in the country; support postgraduate Nutrition education and enhance the capacity of the health staff; promote awareness of nutrition through dissemination of appropriate information to the public; advocate nutrition problems to implement relevant policies; monitors the dietary pattern of the population in order to advocate policy makers; monitor nutrition situation of population affected by emergencies; participate in technical committees to support nutrition promotion and to provide technical expertise.

The Department consists of 3 main Units - The Field Unit; The Laboratory and the Research Coordination and Information Unit.

The field unit mainly deals with data collection through interviews, focus group discussions, anthropological surveys, anthropometric measurements, sample collections (blood, urine, salt etc.) and diet surveys.

The samples brought by the field unit are analyzed by the Laboratory Department, which consists of consists of Urinary iodine laboratory, salt iodine laboratory, food laboratory, Vitamin and mineral laboratory, biochemistry laboratory etc.

Research Coordination and Information Unit handles coordination, information flow and finance.

Some of the achievements of the Department are:
- Invention of "Thriposha" – Main supplementary food in Sri Lanka.
- Publishing of Food Composition Tables of Sri Lanka using available food analyses to identify the nutrients in Sri Lankan food.
- Publishing RDAs for Sri Lankans every five years to estimate the amount of food needed for the country.
- Assessing the magnitude of nutritional problems and advocating suitable interventions.

For information visit: http://www.mri.gov.lk/nutrition/

### Upcoming Events

- Healthy People Conference - Healthy Aging, 6th – 7th March 2012 Loma Linda, California, USA. Website: http://www.healthypeopleconference.org
- 9th Annual Nutrition & Health Conference, 16th – 18th April, 2012, Boston, MA, USA. Website: www2.kenes.com/apccon/Pages/Home.aspx

This Newsletter is a publication of the Southeast Asia Nutrition Research-cum-Action Network, which developed out of a consultation in 1990, to establish a newly organized body focusing on research-cum-action as the linkage among 11 countries in the Southeast Asia Region. This Newsletter serves as a forum of communication for network members and those interested in strengthening the Network’s activities. Publication and dissemination of this Newsletter is supported by WHO Southeast Asia Regional Office (WHO SEARO), New Delhi, India.