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Southeast Asian Perspectives on Nutrition Needs for the New Millennium

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Over the last three decades, there has been significant changes in the lifestyles of communities, including food habits, and food purchasing and consumption patterns in the Southeast Asian region. As a result, there is a definite change in the food and nutrition issues in the region. Nutritional deficiencies in many of these countries are slowly being decreased in magnitude. On the other hand, the significant proportions of the population are now faced with the other facet of the malnutrition problem, namely diet-related chronic diseases. However, because of the different stages of socio-economic development, the extent of each of these extremes of the malnutrition problems varies considerably between the different countries in Southeast Asia. Nutrition needs in the new millennium would necessarily differ somewhat among these countries while at the same time, there would be a considerable amount of similarities. This presentation highlights several macro issues that countries in the region may focus on in the near future.

Various intervention programmes have been undertaken by authorities to tackle the co-existence of twin faces of malnutrition in many developing countries. It would be desirable to have a blue print of such programmes and activities in the National Plans of Action for Nutrition (NPANs). The NPAN should be more than a framework or a descriptive document. It should be a tool for action, an operational plan that sets out priorities; identifies projects and activities, with details of implementation such as what, how and when; designates responsibilities and accountability for the activities; identifies resource requirements and their source; and sets out the plan for monitoring and evaluation.

One of the main obstacles in the formulation and effective implementation of intervention programmes in developing countries is the lack of comprehensive data on the extent of the problems in many cases and the causes of such problems specificy to the communities concerned. It is thus imperative to identify appropriate research priorities and conduct relevant studies. It is also important to have basic baseline data collected at regular intervals such as nutritional status of communities and dietary intake. To conduct all these activities, it is vital to ensure adequate funding, preferably through establishing a dedicated fund for research.

There should be closer collaboration between countries in the region in all nutrition activities to enable sharing of resources, experiences and learn from the mistakes of others. One existing mechanism is through the ASEAN structure. The other existing mechanisms are through WHO and FAO. One other mechanism is through the International Life Sciences Institute (ILSI) Southeast Asian Branch.

Closely related to this need for networking is the need for continuing harmonization of approaches to nutrition activities in the region. Current efforts in harmonisation include RDA, nutritional status assessment methodologies and dietary guidelines. Other areas of harmonisation in the near future include nutrition labelling and claims.

INTRODUCTION

Over the last three decades, there has been significant changes in the lifestyles of communities, including food habits, and food purchasing and consumption patterns in the Southeast Asian region. Significant demographic changes have also occurred. As a result, there is

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a definite change in the food and nutrition issues facing the communities in countries in the region. Nutritional deficiencies in many of these countries are slowly being decreased in magnitude. On the other hand, the significant proportions of the population are now faced with the other facet of the malnutrition problem, namely diet-related chronic diseases such as hypertension, coronary heart disease, diabetes mellitus and certain types of cancers. However, because of the different stages of socio-economic development, the extent of each of these extremes of the malnutrition problems varies considerably between the different countries in Southeast Asia. Nutrition needs in the new millennium would necessarily differ somewhat among these countries whilst at the same time, there would be a considerable amount of similarities. In the extremely short time available, this presentation will only focus on several macro issues that may be relevant for countries in the region.

Changes in Nutrition Scenario in Asia

Over two decades of sustained economic growth in the region and increasing political stability in many Asian countries has brought about rapid advances in the socio-economic situation in these countries. There has been increased nutrient availability in many countries in the region as well as improved health facilities. These improvements have led to the improvements in morbidity and mortality data in these countries as well as marked decrease in nutrient deficiencies. Nevertheless, the extent of the undernutrition problem is still large and the magnitude varies markedly between the countries in the region.

Besides changes in amounts of available nutrients to countries in the region, there has also been marked changes in the sources of nutrients and composition of diets. Marked changes in consumption patterns in Asian countries have taken place from 1960 to 1990. Most countries showed a decrease in cereal consumption, except for low income countries where average consumption has remained more or less stable. There has also been increases in percent of energy from fat. In contrast, there has been an increase in the consumption of added fats in most countries. The most affluent countries show an increase in vegetable and fruit consumption. Meat consumption (and thus saturated animal fats) increased markedly in some countries, e. g., Japan, China and South Korea recorded 330%-250% increases. The consumption of milk and dairy products has increased in only a few countries[1].

There has also been other changes in dietary behaviour. More families eat out and there is increased consumption of "fast foods". Overeating is also a concern amongst some segments of the community. There is also increasing dependence among some individuals on dietary supplements, some even with the mistaken belief that these can replace missed meals. Other significant changes in lifestyle have also taken place. These include decrease in physical activity, even in rural areas, and the continued high prevalence of smoking.

The combined effect of these changes is a definite change in the food and nutrition issues facing the communities in countries in the region. Significant proportions of the population are now faced with the other facet of the malnutrition problem, namely chronic diseases associated with excessive consumption of various nutrients (e.g., fat) on the one hand and low levels of intake of other nutrients (e.g., complex carbohydrates and fibre) on the other. The increased prominence of these diseases, such as hypertension, coronary heart disease, diabetes mellitus and certain types of cancers is evident from mortality and epidemiologic data. These new dimensions in the nutrition situation pose great challenges to the nutritionists and other health workers. The extent of such diseases understandbly varies markedly amongst countries in the region. Nutrition needs in the new millennium would thus be different amongst these countries. There would nevertheless be considerable similarities as well.

Need to Tackle Both Under- and Overnutrition Problems

Countries in the region will continue to progress, accompanied by continued changes in lifestyle of communities. It is therefore of utmost importance to continue to monitor the nutritional status of communities. Systems to periodically collect data on nutritional status and dietary intake of communities should be in place in all countries.

As the extent of the undernutrition problem remains huge, it is vital that there is no lack of attention or action on tackling these issues. More thoughts should be given towards implementing programmes and activities which are relevant to local communities. Other factors related to malnutrition should be tackled at the same time, specifically environmental sanitation. The importance of infection should not be neglected.

Dramatic changes in socio-economic conditions in the Asian region are expected to continue in the future. The associated increase in diet-related chronic diseases in developing countries in Asia mentioned above should be a cause for real concern and real concerted interventions. For countries not yet afflicted with diet-related chronic diseases, it is important to avoid or reduce the onslaught of these diseases. It is hoped that these countries will be able to learn from the mistakes of others and not follow the same path.

For example, the emerging problem of overweight amongst children cannot be ignored. Present estimates of overweight amongst preschool children in developing countries in 1995 is low, estimated to be 3.3%. There is of course considerable variation in this prevalence amongst the various countries. The estimate for Asia was 2.9%, with higher prevalence of 4.3% in Eastern Asia and 2.4% in Southeast Asia[2]. Data extracted from individual Asian countries show much higher prevalences of 9% for Brunei Darussalam, 5.4% for Thailand, and are not available for in terms of number of children, a total of 17.6 million preschool children in all developing countries were considered overweight. Out of this total, 61% or 10.6 million were in Asia. The region is therefore having the double burden of the most number of stunted preschool children as well as the most number of overweight children. It is indeed a challenge for governments to formulate and intervention programmes to tackle both facets of the malnutrition problem. It is imperative that the overweight problem be identified and recognized early enough for firm action to be taken immediately.

NATIONAL PLAN OF ACTION FOR NUTRITION

An abundance of evidence has been accumulated supporting the role of diet in the development of the above mentioned chronic diseases. The World Health Organization and the Food and Agriculture Organization have given a great deal of emphasis on these disorders. Several expert consultations have been convened to recommend appropriate intervention strategies[3]. The most prominent of these efforts in recent years is the convening of the FAO/WHO International Conference on Nutrition in 1992, during which the World Declaration and Plan of Action were adopted (NPANs) to effectively tackle undernutrition and overnutrition problems.

Various intervention programmes have been undertaken by governments to tackle the co-existence of twin faces of malnutrition in many developing countries. Many governments have re-examined and redefined health policies and strategies in order to continue to eliminate nutrient deficiencies while at the same time to adequately control the increase of diet-related chronic diseases. It is a challenge to health authorities in developing countries to develop these programmes within the resources available. It would be desirable to have a master plan of such programmes and activities. This could be in the form of a national plan of

action for nutrition, such as that recommended in the International Conference on Nutrition jointly organized by the FAO/WHO in 1992.

In a workshop to review progress of NPANs in the Western-Pacific Region in October 1999[4], it was found that most countries have NPANs, either approved and implemented or awaiting official endorsement. The plan formulation is usually multisectoral, involving several government ministries, non-governmental organizations, and international agencies. Often official adoption or endorsement of the plan comes from the head of state and cabinet or the minister of health, one to six years from the start of its formulation. The World Declaration on Nutrition (WDN) has stimulated the development of NPANs in many countries and inclusion of WDN strategies in the country plan. NPANs have stimulated support for the development and implementation of nutrition projects and activities, with comparatively greater involvement of and more support from government ministries, U.N. agencies and non-governmental agencies compared to local communities, bilateral and private sectors and research and academic institutions.

The NPAN is more than a framework or a descriptive document. As a tool for action, an operational plan sets priorities; identifies projects and activities, with details of implementation such as what, how and when; designates responsibilities and accountability for the activities; identifies resource requirements and their source; and sets out the plan for monitoring and evaluation. All the countries have been implementing a range of nutrition projects and activities. At times, donor-driven activities are implemented rather than those based on country needs, capabilities and resources, thus endangering their sustainability. Nutrition activities are implemented in a multisectoral manner; this has both positive and negative consequences. In some cases, nutrition projects compete with or duplicate other social development projects, leading to inadequate or inefficient implementation. In other cases, nutrition projects need to be a part of other social health concerns. Specific, short-term and team-based projects are favoured in the Pacific.

Monitoring and evaluation are important components of NPANs. They are, however, not given high priority and often not built into the plan. The role of an intersectoral coordinating body is considered crucial to a country's nutrition programme. Most countries have an intersectoral structure or coordinating body to ensure the proper implementation, monitoring and evaluation of their NPANs.

The workshop identified constraints and key elements of success in each of the four stages of the NPAN process: development, operationalization, implementation, and monitoring and evaluation. Constraints to the NPAN process relate to the political and socio-economic environment, resource scarcity, control and management processes, and factors related to sustainability. The group's review of the NPAN process identified successful NPANs as those based on recent, adequate and good quality information on the nutritional situation of the country, and on the selection of strategies, priorities and situations that are relevant to the country and backed up by adequate resources. Continued high level political commitment, a multisectoral approach, and adequate participation of local communities are other important key elements for success.

RESEARCH DATA AND MECHANISM FOR FUNDING

One of the main obstacles in the formulation and effective implementation of intervention programmes in developing countries is the lack of comprehensive data on the extent of the problems in many cases and the causes of such problems specific to the communities concerned. This lack of data hinders the development of public health strategies to effective-

ly combate these disorders. Causes of such nutritional disorders are multifactorial. It is not merely supplying food to the community or raising their economic level. It is thus imperative to identify appropriate research priorities and conduct relevant studies. Research priorities in the region should take into cognizance the prevailing nutritional issues and concerns.

To ensure smooth implementation of research studies, it is important to establish a mechanism for identifying research priorities. All parties involved, including programme managers and policy makers (the data users) and the researchers (data generators) should have regular discussions to identify research needs. It is also important to have basic baseline data collected at regular intervals such as nutritional status of communities and dietary intake. To conduct all these activities, it is vital to ensure adequate funding, preferably through establishing a dedicated fund for research, including involvement of the private sector.

The case for Malaysia may be used as an illustration. Prior to the 5th Malaysia Plan Period (1986—1990), medical and health research studies had to be carried out using operating budget of institutions. Since 1988, dedicated funding for research in the country was made available by the government. The Intensification of Research in Priority Areas (IRPA) mechanism was established to fund research studies in five sectors, namely agriculture, industry, medical/health, social science and strategic. In the field of medical research, a one-page listing of topics was prepared to indicate the priority areas. In the 6th and 7th Malaysia plan periods, the list of priority areas was further improved and refined. There was no specific programme for nutrition research, although nutrition studies have been supported under some of the general health programmes.

For the 8th Malaysia Plan (2001—2005), a National Conference on Research Priorities in the Health Sector was organised to review and update the research priority areas. It was felt important for nutrition to be given greater prominence in the identified priority areas. Thus, a pre-conference workshop was organised to identify nutrition priority areas. The Technical Working Group on Research (TWG-R), one of the three TWGs formed under the National Coordinating Committee on Food and Nutrition (NCCFN), was given the task of organising the workshop. A total of 38 nutritionists, dieticians, clinicians, food scientists, agriculturists, veterinarian and other related professionals, representing 20 departments and institutions and professional bodies discussed in detail and proposed specific areas of research. The six programmes in nutrition proposed are[5]: (1) Clinical Nutrition, (2) Nutrition Related Chronic Diseases, (3) Nutrient Deficiencies, (4) Nutrition Promotion and Education, (5) Nutritional Databases, (6) Nutrition in Relation to Performance and Mental Health.

It is also vital to ensure adequate funding for research activities. In the case of Malaysia, the amount allocated through the IRPA mechanism for the 5th Malaysia Plan period was RM33 million for the health sector and total of RM540 million for the five sectors combined. In the 6th Plan period, a total of RM59 million was allocated for this sector, whereas the total amount for all five sectors was RM588 million. The amount made available for the health sector was almost twice the amount available for the previous period. The amount allocated for the health sector in the 7th Plan period was RM287 million, while RM1 billion was set aside for all sectors combined or more than 4 times compared with the allocation for the 6th MP.

ADVOCACY

One of the most important needs for the region is to continue to raise the profile of nu-

trition in the countries. There are also efforts in some countries to enact specific regulations for the nutrition profession so as to reduce abuse and malpractices. What is needed are also champions of nutrition in the countries. It is imperative that advocacy of nutrition, preferably through the NPAN, be continued amongst the highest levels of policy makers in the government, including politicians. It is only through the support of the government that the programmes and activities are going to be implemented effectively. Advocacy should not be confined to the Ministry of Health where nutrition programmes may be traditionally housed, but rather to other relevant ministries such as agriculture, education, central agencies and social development. It is vital to incorporate nutrition objectives and programmes into the overall development plans of the country.

REGIONAL COLLABORATION AND HARMONIZATION

There is a need for closer collaboration between countries in the region in all nutrition activities. In view of the limited resources available to these countries, it would be beneficial to share resources, experiences and learn from the mistakes of others. There should be strengthening of regional nutrition networks. But what opportunities and mechanisms exist for such collaborations? One existing mechanism is through the ASEAN structure, perhaps through the Subcommittee on Health and Nutrition. The other existing mechanisms are through WHO and FAO, but there are problems of different coverage of countries by these 2 UN agencies. One other mechanism is through the International Life Sciences Institute (ILSI) Southeast Asian Branch.

Closely related to this need for networking is the need for continuing harmonization of approaches to nutrition activities in the region. Current efforts in harmonization spearheaded by several international agencies (e.g., the International Life Sciences Institute (ILSI), WHO and FAO) include recommended dietary allowances (RDA), nutritional status assessment methodologies and dietary guidelines. In the area of RDA, a series of discussions have been held among nutritionists in the region to harmonise the establishment or review of these dietary requirements. The first was held in 1997 and the fourth meeting in the series was held in August 2000. At the latest meeting, participants reached agreement on several basic but important aspects of the development of RDAs. These aspects agreement on terminology, RDA concepts and approach, "core" nutrients to be included in RDAs, units of expression and population groupings. There was ageement to continue to collaborate in the development of RDAs[6].

There have also been efforts in collaboration and harmonization in the area of methodologies for the assessment of nutrition status of communities. The first formal meeting, organized by the Institute for Medical Research and the World Health Organization Western Pacific Region, was held in Kuala Lumpur in 1997. One of the findings from the meeting was that country differences exist for the various methodologies, references and standards. A follow-up meeting was organized in August 2000 to promote the harmonization of dietary, anthropometric and biochemical methods of assessment of nutritional status and stimulate national and international collaborative research in the region. This harmonization effort will ensure more accurate data, greater comparability of national data and closer collaboration among countries in the region in efforts to monitor the nutritional status of communities. The workshop also attempted to identify and recommend the best methods for the assessment of nutritional status of communities[7].

Other areas of harmonization in the near future include nutrition labelling and claims. There is increasing interest globally in these areas, including active discussions in meetings

of the Codex Committee on Food Labelling and the Codex Committee on Nutrition and Foods for Special Dietary Uses. In the Southeast Asian region, there are no mandatory nutrition labelling requirements, except for special categories of foods and when nutritional claims are made. Nutrition and health claims are also not specifically permitted under current regulations. There is, however, increasing interest among authorities in the region to formulate regulations for nutrition labelling for a wider variety of foos and also provide specific provisions for claims[3]. It would be beneficial to the food industry and the regulatory agencies to collaborate in these efforts and harmonise in approaches.

REFERENCES

1. WRCF/AICR (1997). Patterns of diet and cancer. In *Food, Nutrition and the Prevention of Cancer: A Global Perspective*, pp. 20-52. World Cancer Research Fund/American Institute for Cancer Research.
2. de Onis, M. and Blossner, M. (2000). Prevalence and trends of overweight among preschool children in developing countries. *Am J Clin Nutr*. 72(4), 1032-1039.
3. WHO (1990). Diet, Nutrition and Prevention of Chronic Diseases. Report of a WHO Study Group. *WHO Technical Report Series* 797. World Health Organization, Geneva.
4. WHO (2000). *Report of the WHO Western Pacific Region Workshop on National Plans of Action for Nutrition: Key Elements for Success, Constraints and Future Plans*, 25-29 *October* 1999, *Kuala Lumpur*. WHO Regional Office, Manila.
5. Tee, E. S. (1999). *Report of the Pre-Conference Workshop for the Identification of Research Priority Areas in Nutrition*. Kuala Lumpur.
6. Barba, C. and Cabrera, I. (2000). *Summary of Proceedings of the 4th Southeast Asia Regional RDA Harmonisation Workshop*, 30 *August* 2000, *Kuala Lumpur*.
7. Tee, E. S. (2000a). *Report of the Regional Seminar on Assessment of Nutritional Status of communities*, 28-29 *August* 2000, *Kuala Lumpur*.
8. Tee, E. S. (2000b). Labelling, nutrition and health claims: what's happening in Southeast Asia? *Food Australia* 52(6), 249-251.

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