

6. **Strategic directions and recommendations for policy and research**

6.1 **Introduction**

The principal goal of public health policy is to give people the best chance to enjoy many years of healthy and active life. Public health action to prevent the adverse consequences of inappropriate dietary patterns and physical inactivity is now urgently needed. To this end, the Consultation discussed how nutrient/food intake and physical activity goals could be used by policy-makers to increase the proportion of people who make healthier choices about food and undertake sufficient physical activity to maintain appropriate body weights and adequate health status. This chapter discusses ways to catalyse the long-term changes that are needed to place people in a better position to make healthy choices about diet and physical activity. Such processes require long-term changes in thinking and action at the individual and societal levels; demand concerted action by national governments, international bodies, civil society and private entities and will need insights and energies contributed by multiple sectors of society.

New scientific information will be essential to permit adjustment not only of the policy levers, but also of the strategic processes to introduce change. This constitutes an important focus for applied research that should yield useful evidence to guide effective interventions.

Three key elements need to be analysed. The first is the range of possible policy principles that would help people achieve and maintain healthy dietary and activity patterns in a simple and rewarding manner. The second is the prerequisites for possible strategies to introduce these policies in different settings. These include the need for leadership, effective communication of problems and possible solutions, functioning alliances, and ways of encouraging enabling environments to facilitate change. The third is the possible strategic actions to promote healthy diets and physical activity.

6.2 Policy principles for the promotion of healthy diets and physical activity^{1,2}

The Consultation recommended the consideration of the following policy principles when developing national strategies to reduce the burden of chronic diseases that are related to diet and physical inactivity.

- Strategies should be *comprehensive* and address all major dietary and physical activity risks for chronic diseases together, alongside other risks – such as tobacco use – from a multisectoral perspective.
- Each country should select what will constitute the *optimal mix of actions* that are in accord with national capabilities, laws and economic realities.
- *Governments have a central steering role* in developing strategies, ensuring that actions are implemented and monitoring their impact over the long term.
- *Ministries of health have a crucial convening role* – bringing together other ministries needed for effective policy design and implementation.
- *Governments need to work together with* the private sector, health professional bodies, consumer groups, academics, the research community and other nongovernmental bodies if sustained progress is to occur.
- *A life-course perspective* on chronic disease prevention and control is critical. This starts with maternal and child health, nutrition and care practices, and carries through to school and workplace environments, access to preventive health and primary care, as well as community-based care for the elderly and disabled people.
- Strategies should explicitly address equality and diminish disparities; they should focus on the needs of the *poorest communities and population groups* – this requires a strong role for government. Furthermore, since women generally make decisions about household nutrition, strategies should be *gender sensitive*.

¹ During the preparation of this report, by resolution WHA55.23 (1) in May 2002, the World Health Assembly called upon the Director-General to develop a global strategy on diet, physical activity and health (WHA55.23). The process for developing the WHO global strategy will involve formal consultation with Member States, United Nations agencies, civil society, and the private sector over a period of a year, prior to drafting a proposed global strategy for presentation to the Fifty-seventh World Health Assembly in 2004.

² Ensuring that people have access to adequate food which is safe and at the same time of appropriate nutritional quality is important. One of the commitments adopted by the *World Food Summit* convened by FAO in 1996, and reiterated in 2002 at the *World Food Summit: Five Years Later*, specifically endorses the implementation of policies aimed at “improving access by all, at all times to sufficient, nutritionally adequate and safe food”.

- There are limits to what individual countries can do alone to promote optimal diets and healthy living. Strategies need to draw substantially on existing *international standards* that provide a reference in international trade. Member States may wish to see additional standards that address, for example, the marketing of unhealthy food (particularly those high in energy, saturated fat, salt and free sugars, and poor in essential nutrients) to children across national boundaries. Countries may also wish to consider means of ensuring the accessibility of healthier choices (such as fruits and vegetables) to all socioeconomic groups. WHO's international leadership role in pushing forward the agenda on diet, physical activity and health is crucial. FAO also has an important role in this process since it deals with issues relating to the production, trade, marketing of food and agricultural commodities and provides guidelines ensuring the safety and nutritional adequacy of food and food products.

6.3 Prerequisites for effective strategies

Drawing on experience with the implementation of local and national strategies for public health matters in different settings, the Expert Consultation concluded that there are a number of prerequisites for success. These include leadership, effective communication, functioning alliances and an enabling environment.

6.3.1 Leadership for effective action

Leadership is essential for introducing long-term changes. Within nations, governments have the primary responsibility for providing this leadership. In some cases leadership may be initiated by civil society organizations prior to government action. It is unlikely that there will be just one correct path to improved health: each country will need to determine the optimal mix of policies that its particular circumstances best fit. Each country will need to select measures within the reality of its economic and social resources. Within a given country, effective action may call for regional strategies.

More proactive leadership is needed, worldwide, to portray a holistic vision of food and nutritional issues as they affect overall health. Where this leadership has existed, it has been possible to make governments take notice and introduce the necessary changes. The question remains of how to develop and strengthen leadership capacity to reach a critical mass. The WHO collaborating centres in nutrition and the FAO network of centres of excellence are possible routes, although there is a clear need to strengthen existing capabilities.

Governments throughout the world have developed strategies to eradicate malnutrition, a term traditionally used synonymously with

undernutrition. However, the growing problems of nutritional imbalance, overweight and obesity, together with their implications for the development of diabetes, cardiovascular problems and other diet-related noncommunicable diseases, are now at least as pressing. This applies especially to developing countries undergoing the nutrition transition; such countries bear a double burden of both overnutrition, as well as undernutrition and infectious diseases. Unless there is political commitment to spur governments on to achieve results, strategies cannot succeed. Setting population goals for nutrient intake and physical activity is necessary but insufficient. Giving people the best chance to enjoy many years of healthy and active life requires action at the community, family and individual levels.

6.3.2 ***Effective communication***

Change can only be initiated through effective communication. The core role of health communication is to bridge the gap between technical experts, policy-makers and the general public. The proof of effective communications is its capacity to create awareness, improve knowledge and induce long-term changes in individual and social behaviours – in this case consumption of healthy diets and incorporating physical activity for health.

An effective health communication plan seeks to act on the opportunities at all stages of policy formulation and implementation, in order to positively influence public health. Sustained and well targeted communication will enable consumers to be better informed and make healthier choices. Informed consumers are better able to influence policy-makers; this was learned from work to limit the damage to health from tobacco use. Consumers can serve as advocates or may go on to lobby and influence their societies to bring about changes in supply and access to goods and services that support physical activity and nutritional goals.

The cost to the world of the current and projected epidemic of chronic disease related to diet and physical inactivity dwarfs all other health costs. If society can be mobilized to recognize those costs, policy-makers will eventually start confronting the issue and themselves become advocates of change. Experience shows that politicians can also be influenced by the positions taken by the United Nations agencies, and the messages that they promote. Medical networks have also been found to be effective advocates of change in the presence of a government that is responsive to the health needs of society. Consumer nongovernmental organizations and a wide variety of civil society organizations will also be critical in raising consumer consciousness and supporting the climate

for constructive collaboration with the food industry and the private sector.

6.3.3 ***Functioning alliances and partnerships***

Change can be accelerated if all groups in favour establish alliances to reach the common objective. Ideally, the effort should include a range of different parties whose actions influence people's options and choices about diet and physical activity. Alliances for action are likely to extend from communities to national and regional levels, involving formal focal points for nutrition within different public, private and voluntary bodies. The involvement of consumers associations is also important to facilitate health and nutrition education. International organizations with nutrition-related mandates, such as FAO and WHO, are expected to encourage the routing of reliable information through these networks. Alliances with other members of the United Nations family are also important – for example, with the United Nations Children's Fund on maternal – child nutrition and life-course approaches to health. Private sector industry with interests in food production, packaging, logistics, retailing and marketing, and other private entities concerned with lifestyles, sports, tourism, recreation, and health and life insurance, have a key role to play. Sometimes it is best to work with groups of industries rather than with individual industries that may wish to capitalize on change for their own benefit. All should be invited; those who share the health promotion objective will usually opt to participate in joint activities.

6.3.4 ***Enabling environments***

Individual change is more likely to be facilitated and sustained if the macroenvironment and microenvironment within which choices are made support options perceived to be both healthy and rewarding. Food systems, marketing patterns and personal lifestyles should evolve in ways that make it easier for people to live healthier lives, and to choose the kinds of food that bring them the greatest health benefits. An enabling environment encompasses a wide frame of reference, from the environment at school, in the workplace and in the community, to transport policies, urban design policies, and the availability of a healthy diet. Furthermore, it requires supportive legislative, regulatory and fiscal policies to be in place. Unless there is an enabling context, the potential for change will be minimal. The ideal is an environment that not only promotes but also supports and protects healthy living, making it possible, for example, to bicycle or walk to work or school, to buy fresh fruits and vegetables, and eat and work in smoke-free rooms.

Specific actions to create enabling environments are outlined in greater detail below.

Supporting the availability and selection of nutrient-dense foods (fruits, vegetables, legumes, whole grains, lean meats and low-fat dairy products)

Within this overall concept, the issue of nutrient-dense foods versus energy-dense/nutrient-poor foods is critical as it concerns the balance between providing essential nourishment and maintaining a healthy weight. The quality of the fat and carbohydrate supplied also plays a key role. The following are all important: increasing access – especially of low-income communities – to a supply of nutrient-dense fresh foods; regulations that support this; facilitating access to high-quality diets through food pricing policies; nutrition labels to inform consumers, in particular about the appropriate use of health/nutrition claims. The provision of safe and nutritious food is now recognized not only as a human need but also as a basic right.

Assessing trends in changing consumption patterns and their implications for the food (agriculture, livestock, fisheries and horticulture) economy

Recommendations, which result in changes in dietary patterns, will have implications for all components of the food economy. Hence it is appropriate to examine trends in consumption patterns worldwide and deliberate on the potential of the food and agriculture sector to meet the demands and challenges posed by this report. All sectors in the food chain, from farm to the table, will have to be involved if the food economy is to respond to the need for changes in diets that will be necessary to cope with the burgeoning epidemic of noncommunicable diseases.

Hitherto most of the information on food consumption has been obtained from national Food Balance data. In order to understand better the relationship between food consumption patterns, diets and the emergence of noncommunicable diseases, it is crucial to obtain more reliable information on actual food consumption patterns and changing trends based on representative consumption surveys.

There is a need to monitor whether the guidelines developed in this report, and strategies based on them, will influence the behaviour of consumers and to what extent consumers will change their diets (and lifestyles) towards more healthy patterns.

The next step will be to assess the implications that these guidelines will have for agriculture, livestock, fisheries and horticulture. To meet the specified levels and patterns of consumption, new strategies may need to be developed. This assessment will need to include all stages in the food chain – from production and processing to marketing and consumption. The effects that these changes in the food economy could have on the sustainability of natural resource use would also need to be taken into account.

Likewise, international trade issues would need to be considered in the context of improving diets. Trade has an important role to play in improving food and nutrition security. Factors to consider include the impact of lower trade barriers on the purchasing power of consumers and variety of products available, while on the export side, questions of market access, competitiveness and income opportunities for domestic farmers and processors would merit attention. The impact that agricultural policy, particularly subsidies, has on the structure of production, processing and marketing systems and, ultimately, on the availability of foods that support healthy food consumption patterns will need to be examined.

Finally, assessments of the above issues, and more, will certainly have policy implications at both the national and international levels. These implications would need to be taken up in the appropriate forum and considered by the stakeholders concerned.

Sustainable development

The rapid increase in the consumption of animal-based foods, many of which are produced by intensive methods is likely to have a number of profound consequences. On the health side, increased consumption of animal products has led to higher intakes of saturated fats, which in conjunction with tobacco use, threatens to undermine the health gains made by reducing infectious diseases, in particular in the countries undergoing rapid economic and nutrition transition. Intensive cattle production also threatens the world's ability to feed its poorest people, who typically have very limited access to even basic foods. Environmental concerns abound too; intensive methods of animal rearing exert greater environmental pressures than traditional animal husbandry, largely because of the low efficiency in feed conversion and high water needs of cattle.

Intensive methods of livestock production may well provide much needed income opportunities, but this is often at the expense of the farmers' capacity to produce their own food. In contrast, the production of more diverse foods, in particular fruits, vegetables and legumes, may have a dual benefit in not only improving access to healthy foods but also in providing an alternative source of income for the farmer. This is further promoted if farmers can market their products directly to consumers, and thereby receive a greater proportion of final price. This model of food production can yield potent health benefits to both producers and consumers, and simultaneously reduce environmental pressures on water and land resources.

Agricultural policies in several countries often respond primarily to short-term commercial farming concerns rather than be guided by health

and environmental considerations. For example, farm subsidies for beef and dairy production had good justification in the past — they provided improved access to high quality proteins but today contribute to human consumption patterns that may aggravate the burden of nutrition related chronic disease. This apparent disregard for the health consequences and environmental sustainability of present agricultural production, limits the potential for change in agricultural policies and food production, and at some point may lead to a conflict between meeting population nutrient intake goals and sustaining the demand for beef associated with the existing patterns of consumption. For example, if we project the consumption of beef in industrialized countries to the population of developing countries, the supply of grains for human consumption may be limited, specially for low-income groups.

Changes in agricultural policies which give producers an opportunity to adapt to new demands, increase awareness and empower communities to better address health and environmental consequences of present consumption patterns will be needed in the future. Integrated strategies aimed at increasing the responsiveness of governments to health and environmental concerns of the community will also be required. The question of how the world's food supply can be managed so as to sustain the demands made by population-size adjustments in diet is a topic for continued dialogue by multiple stake-holders that has major consequences for agricultural and environmental policies, as well as for world food trade.

Physical activity

A large proportion of the world's population currently takes an inadequate amount of physical activity to sustain physical and mental health. The heavy reliance on the motor car and other forms of labour-saving machinery has had much to do with this. Cities throughout the world have dedicated space for motor cars but little space for recreation. Changes in the nature of employment have meant that more time is spent travelling to and from work, thereby limiting the time available for the purchase and preparation of food. Cars are also contributors to growing urban problems, such as traffic congestion and air pollution.

Urban and workplace planners need to be more aware of the potential consequences of the progressive decline in occupational energy expenditure, and should be encouraged to develop transport and recreation policies that promote, support and protect physical activity. For example, urban planning, transportation and building design should give priority to the safety and transit of pedestrians and safe bicycle use.

Traditional diets

Modern marketing practices commonly displace local or ethnic dietary patterns. Global marketing, in particular, has wide-ranging effects on both consumer appetite for goods and perceptions of their value. While some traditional diets could benefit from thoughtful modification, research has shown that many are protective of health, and clearly environmentally sustainable. Much can be learned from these.

6.4 Strategic actions for promoting healthy diets and physical activity

The strategies for promoting healthy diets and physical activity need to reflect local and national realities as well as global determinants of diet and physical activity. They must be based on scientific evidence on the ways in which people's dietary and physical activity patterns have positive or adverse effects on health. In practice, strategies are likely to include at least some of the following practical actions.

6.4.1 *Surveillance of people's diets, physical activity and related disease burden*

A surveillance system for monitoring diet, physical activity and related health problems is essential to enable all interested stakeholders to track progress towards each country's diet-related health targets, and to guide the choice, intensity and timing of measures to accelerate achievement. The data required for implementing effective policies need to be specific for age, sex and social group, and indicate changing trends over time.

6.4.2 *Enabling people to make informed choices and take effective action*

Information about fat quality, salt and sugars content, and energy density should be incorporated into nutrition and health promotion messages, and as required in food labelling tailored to different population groups – including disadvantaged population groups – through the wide reach of modern media. The ultimate goal of information and communication strategies is to assure availability and choice of better quality food, access to physical activity and a better-informed global community.

6.4.3 *Making the best use of standards and legislation*

The Codex Alimentarius – the intergovernmental standard-setting body through which nations agree on standards for food – is currently being reviewed. Its work in the area of nutrition and labelling could be further strengthened to cover diet-related aspects of health. The feasibility of codes of practice in food advertising should also be explored.

6.4.4 ***Ensuring that “healthy diet” components are available to all***

As consumers increase their preference for healthy diets, producers and suppliers will wish to orient their products and marketing to respond to this emerging demand. Governments could make it easier for consumers to exercise healthier choices, in accordance with the population nutrient intake goals given in this report by, for example, promoting the wider availability of food which is less processed and low in trans fatty acids, encouraging the use of vegetable oil for domestic consumers, and ensuring an adequate and sustainable supply of fish, fruits, vegetables and nuts in domestic markets.

In the case of meals prepared outside the home (i.e. in restaurants and fast-food outlets), information about their nutritional quality should be made available to consumers in a simple manner so that they can select healthier choices. For example, consumers should be able to ascertain not only the amount of fat or oil in the meals they have chosen, but also whether they are high in saturated fat or trans fatty acids.

6.4.5 ***Achieving success through intersectoral initiatives***

Approaches to promoting healthy diets call for comprehensive strategies that cut across many sectors and involve the different groups within countries concerned with food, nutrition, agriculture, education, transport and other relevant policies. They should involve alliances that encourage the effective implementation of national and local strategies for healthy diets and physical activity. Intersectoral initiatives should encourage the adequate production and domestic supply of fruits, vegetables and wholegrain cereals, at affordable prices to all segments of the population, opportunities for all to access them regularly, and individuals to undertake appropriate levels of physical activity.

6.4.6 ***Making the best of health services and the professionals who provide them***

The training of all health professionals (including physicians, nurses, dentists and nutritionists) should include diet, nutrition and physical activity as key determinants of medical and dental health. The social, economic, cultural and psychological determinants of dietary and physical activity choice should be included as integral elements of public health action. There is an urgent need to develop and strengthen existing training programmes to implement these actions successfully.

6.5 **Call to action**

There is now a large, convincing body of evidence that dietary patterns and the level of physical activity can not only influence existing health levels, but also determine whether an individual will develop chronic

diseases such as cancer, cardiovascular disease and diabetes. These chronic diseases remain the main causes of premature death and disability in industrialized countries and in most developing countries. Developing countries are demonstrably increasingly at risk, as are the poorer populations of industrialized countries.

In communities, districts and countries where widespread, integrated interventions have been implemented, dramatic decreases in risk factors have occurred. Successes have come about where the public has acknowledged that the unnecessary premature deaths that occur in their community are largely preventable and have empowered themselves and their civic representatives to create health-supporting environments. This has been achieved most successfully by establishing a working relationship between communities and governments; through enabling legislation and local initiatives affecting schools and the workplace; by involving consumers' associations; and by involving food producers and the food-processing industry.

There is a need for data on current and changing trends in food consumption in developing countries, including research on what influences people's eating behaviour and physical activity and what can be done to address this. There is also a need, on a continuing basis, to develop strategies to change people's behaviour towards adopting healthy diets and lifestyles, including research on the supply and demand side related to this changing consumer behaviour.

Beyond the rhetoric, this epidemic can be halted – the demand for action must come from those affected. The solution is in our hands.

Reference

1. Resolution WHA55.23. Diet, physical activity and health. In: *Fifty-fifth World Health Assembly, Geneva, 13–18 May 2002. Volume 1. Resolutions and decisions, annexes*. Geneva, World Health Organization, 2002 (document WHA55/2002/REC/1):28–30.

Acknowledgements

Special acknowledgement was made by the Consultation to the following individuals who were instrumental in the preparation and proceedings of the meeting: Dr C. Nishida, Department of Nutrition for Health and Development, WHO, Geneva, Switzerland; Dr P. Puska, Director, Department of Noncommunicable Disease Prevention and Health Promotion, WHO, Geneva, Switzerland; Dr P. Shetty, Chief, Food and Nutrition Division, Rome, Italy; and Dr R. Weisel, Food and Nutrition Division, FAO, Rome, Italy.

The Consultation also expressed deep appreciation to the following individuals for their contributions to the running of the meeting and the finalizing of the report: Dr M. Deurenberg-Yap, Health Promotion Board, Singapore, Professor S. Kumanyika, University of Pennsylvania, Philadelphia, PA, USA; Professor J. C. Seidell, Free University of Amsterdam, Amsterdam, the Netherlands; and Dr R. Uauy, London School of Hygiene and Tropical Medicine, London, England and Institute of Nutrition of the University of Chile, Santiago, Chile.

The Consultation also thanked the authors of the background papers for the Consultation: Dr N. Allen, University of Oxford, Oxford, England; Dr P. Bennett, National Institute of Diabetes and Digestive and Kidney Diseases, Phoenix, AZ, USA; Professor I. Caterson, University of Sydney, Sydney, Australia; Dr I. Darnton-Hill, Columbia University, New York, NY, USA; Professor W.P.T. James, International Obesity Task Force, London, England; Professor M.B. Katan, Wageningen University, Wageningen, Netherlands; Dr T.J. Key, University of Oxford, Oxford, England; Dr J. Lindström, National Public Health Institute, Helsinki, Finland; Dr A. Louheranta, National Public Health Institute, Helsinki, Finland; Professor J. Mann, University of Otago, Dunedin, New Zealand; Dr P. Moynihan, University of Newcastle, Newcastle-upon-Tyne, England; Dr P.E. Petersen, Noncommunicable Disease and Health Promotion, WHO, Geneva, Switzerland; Dr A. Prentice, Medical Research Council Human Nutrition Research, Cambridge, England; Professor K.S. Reddy, All India Institute of Medical Science, New Delhi, India; Dr A. Schatzkin, National Institutes of Health, Bethesda, MD, USA; Dr A.P. Simopoulos, The Centre for Genetics, Nutrition and Health, Washington, DC, USA; Ms E. Spencer, University of Oxford, Oxford, England; Dr N. Steyn, Medical Research Council, Tygerberg, South Africa; Professor B. Swinburn, Deakin University, Melbourne, Victoria, Australia; Professor N. Temple, Athabasca University, Athabasca, Alberta, Canada; Ms R. Travis, University of Oxford, Oxford, England; Dr J. Tuomilehto, National Public Health Institute, Helsinki, Finland; Dr W. Willett, Harvard School of Public Health, Boston, MA, USA; and Professor P. Zimmet, International Diabetes Institute, Caulfield, Victoria, Australia.

The Consultation also recognized the valuable contributions made by the following individuals who provided comments on the background documents: Dr Franca Bianchini, Unit of Chemoprevention, International Agency for Research on Cancer, Lyon, France; Mr G. Boedeker, Economic and Social Department, FAO, Rome, Italy; Professor G.A. Bray, Pennington Biomedical Research Center, Louisiana State University, Baton Rouge, LA, USA; Mr J. Bruinsma, Economic and Social Department, FAO, Rome, Italy; Dr L.K. Cohen, National Institutes of Health, Bethesda, MD, USA; Professor A. Ferro-Luzzi, National Institute for Food and Nutrition Research, Rome, Italy; Dr R. Francis, Freeman Hospital, Newcastle-upon-Tyne, England; Dr Ghafoor-unissa, Indian Council of Medical Research, New Delhi, India; Dr K. Hardwick, National Institutes of Health, Bethesda, MD, USA; Dr H. King, Department of Management of Noncommunicable Diseases, WHO, Geneva, Switzerland; Dr J. King, University of California, Davis, CA, USA; Dr L.N. Kolonel, University of Hawaii, Manoa, HI, USA; Professor N.S. Levitt, University of Cape Town, Cape Town, South Africa; Dr P. Lingström, University of Gothenburg, Gothenburg, Sweden; Professor A. McMichael, Australian National University, Canberra, Australian Capital Territory, Australia; Professor S. Moss, Oral Health Promotion Committee, New York, NY, USA; Professor K. O'Dea, Menzies School of Health Research, Alice Springs, Northern Territory, Australia; Professor D. O'Mullane, University of Cork, Cork, Ireland; Dr P. Pietinen, National Public Health Institute, Helsinki, Finland; Dr J. Powles, University of Cambridge, Cambridge, England; Dr E. Riboli, International Agency for Research on Cancer, Lyon, France; Dr S. Rössner, Huddinge University Hospital,

Huddinge, Sweden; Professor A. Rugg-Gunn, University of Newcastle, Newcastle-upon-Tyne, England; Mr J. Schmidhuber, Economic and Social Department, FAO, Rome, Italy; Professor A. Sheiham, University College London Medical School, London, England; Professor S. Truswell, University of Sydney, Sydney, New South Wales, Australia; Dr S. Tsugane, National Cancer Center Research Institute East, Tsukiji, Tokyo, Japan; Dr Ilkka Vuori, UKK Institute for Health Promotion Research, Tampere, Finland; Dr A.R.P. Walker, South African Institute for Medical Research, Johannesburg, South Africa; Dr S. Watanabe, Tokyo University of Agriculture, Tokyo, Japan; Dr C. Yajnik, King Edward Memorial Hospital Research Centre, Mumbai, India; and Dr S. Yusaf, McMaster University, Hamilton, Ontario, Canada.

Acknowledgement was made by the Consultation to the following individuals for their continual guidance: Dr D. Yach, Executive Director, Noncommunicable Diseases and Mental Health, WHO, Geneva, Switzerland; Dr D. Nabarro, Executive Director, Sustainable Development and Healthy Environments, WHO, Geneva, Switzerland; Mr H. De Haen, Assistant Director-General, Economic and Social Department, FAO, Rome, Italy; Dr G.A. Clugston, Director, Department of Nutrition for Health and Development, WHO, Geneva, Switzerland; and Dr K. Tontisirin, Director, Food and Nutrition Division, FAO, Rome, Italy.

The Consultation expressed special appreciation to Ms P. Robertson for her valuable contribution to the preparation and running of the meeting, to Mrs A. Haden and Mrs A. Rowe for their editorial assistance, and to Mrs R. Imperial Laue, Ms S. Nalty, Ms T. Mutru, Mrs R. Bourne, Mrs A. Manus, Mrs A. Ryan-Röhrich and Ms C. Melin for their assistance in checking, typing and finalizing the manuscript.