International Nutrition: Achieving Millennium Goals and Beyond

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Preface

The UN Millennium Development Goals Report 2012 says: ‘Despite clear evidence of the disastrous consequences of childhood nutritional deprivation in the short and long terms, nutritional health remains a low priority. It is time for nutrition to be placed higher on the development agenda.’ The 78th Nestlé Nutrition Institute Workshop, which took place in Oman in March 2013, focused on improving the nutrition and health of young women and children.

The first session was dedicated to the analysis of world nutrition situation in achieving Millennium Development Goal (MDG) 1. The presentations were designed in a way to cover the global distribution of malnutrition and micronutrient deficiencies in world population of young women and infants and disease burden related to it. A separate topic focused on the implementation of strategies and policies that can reduce infant and maternal morbidity and mortality during the first 1,000 days.

The second session of the workshop covered the interventions that have been and could be deployed to help achieve the MDGs, particularly the nutrition component of MDG 1 and MDGs 4 and 5 on reducing child and maternal mortality. With less than 3 years remaining before the MDG target date of 2015, there is increasing commitment and urgency for scaling up all proven interventions that will have the needed impact. The presentations in this session were designed to review the evidence on ways to achieve the MDGs and the potential contributions of nutrition-specific and disease control interventions, as well as the possible role of sectors other than health. Two presentations considered broadly the maternal and child interventions, including those that are being implemented but could be brought to greater scale and those that could be implemented now given current knowledge on their effects. Two presentations reviewed the issues regarding maternal undernutrition, fetal growth restriction and gain in length and weight in childhood and implications for stunting and adult noncommunicable diseases. The fifth presentation was selected to explore the possible contributions of agriculture to nutrition
and the MDGs. It is expected that reduction of poverty will help achievement of all of the MDGs, but enhanced agriculture may have particular contributions to make for the MDGs that are the focus in this workshop.

The final session of the workshop, at first glance, appeared out of step with the previous two sessions and the overall theme of the meeting. However, while meeting the MDGs is the most important priority for many lower-income countries (as highlighted by earlier speakers), many countries in transition face a ‘double burden’ of disease, with noncommunicable disease fast becoming the predominant health issue facing rich and poor populations alike. The aim of this last session therefore was to look into the future and highlight the problems of obesity, cardiovascular disease and atopic disease which emerging countries will face within the next 20 years.

The four presentations in the last session covered the causes and consequences of noncommunicable disease in both the developing and developed world, reviewed the latest scientific evidence for underlying mechanisms, and discussed the implications for public health and policy makers. Speakers highlighted the impact of early feeding practices (in fetal life, early infancy and early childhood) on programming the risk of noncommunicable disease, as well as the role of nutrition and other environmental factors throughout the life course in predisposing to chronic disease. As always, presentations were followed by lively discussion particularly on the more controversial scientific hypotheses such as the impact of infant growth on the risk of later obesity and cardiovascular disease, and emerging data on the importance of the microbiome in the development of atopic eczema and other allergic conditions. Although more research is clearly needed, the message was clear – lessons need to be learnt from both the developed and developing world in order to stem the current global epidemic of noncommunicable disease.

On behalf of all participants, we are particularly indebted to Prof. Ferdinand Haschke – Head of Nestlé Nutrition Institute, and his team for providing this fantastic opportunity for discussion and learning. Thank you.

Robert E. Black
Atul Singhal
Ricardo Uauy
Foreword

The Nestlé Nutrition Institute has previously organized several workshops in the field of public health and nutrition [1–3]. This time, for the 78th Nestlé Nutrition Institute Workshop in Oman, the theme ‘International Nutrition – Achieving Millennium Goals and Beyond’ was chosen. During the workshop, international target setting was discussed as we looked into how it has been used to influence health outcomes in two highly important segments of the world population – young women and their children. The workshop was the first Nestlé Nutrition Institute event with global broadcasting; it allowed us to share this fantastic program with thousands of scientists around the world.

The world nutrition situation was analyzed, including evidence how country-level action can influence nutrition, in particular agricultural and nutritional interventions. We learned about the strong influence global distribution of resources has on the burden of disease: infant feeding practices in 20 developing countries are associated with improved growth and lower burden of disease. Despite all efforts to support breastfeeding, the question was addressed why only 30–40% of infants are exclusively breastfed until 6 months of age and what can be done to improve the situation. As far as the infant food industry is concerned, there is a need to work with governmental agencies and NGOs and to follow and respect the country-specific interpretation of the WHO code on marketing of breast milk substitutes.

Evidence on interventions and field studies indicated that maternal undernutrition and micronutrient deficiencies are strongly related to low birthweight. Providing women of reproductive age with adequate nutrition is key for successful pregnancy outcome and breastfeeding. Monitoring growth of infants and children to prevent or correct micronutrient deficiencies can have a lifelong effect: iron deficiency anemia with its negative effect on brain function was addressed as an example.

Nutrition during the fetal and postnatal periods was also discussed due to the rising recognition of its value as a means of preventing noncommunicable dis-
eases such as obesity and related complications – diabetes, cardiovascular diseases and stroke. Interventions in developing and developed countries must address maternal obesity [4] as well as fetal and postnatal nutrition – the critical period of the first 1,000 days. Another important topic was prevention of allergic disease and atopic dermatitis through early nutritional intervention. It can now be concluded that such a strategy may help reduce the burden of diseases such as chronic lung disease.

We would like to thank the three chairmen for putting the program together: Prof. Robert E. Black, Prof. Ricardo Uauy, and Prof. Atul Singhal.

We would also like to thank the speakers, moderators and scientific experts in the audience, who have contributed to the workshop content and professional discussions.

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