

Executive Summary

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Since 2008 many governments, civil society organizations, research groups and intergovernmental agencies have sought ways to scale up effective actions for better nutrition. The collective experience to date suggests that such efforts are successful if all the different groups that seek to enable improvements in people's nutrition work *together* in support of sound national policies, the implementation of effective interventions, and sector programs that are sensitive to the determinants of malnutrition. *The Road to Good Nutrition* brings together the thinking of many world experts on this subject, each of whom addresses from their specialist perspective the question of how to improve the nutritional status of the world's population as a whole.

Chapter One, by Martin Bloem (Chief Nutrition and HIV/AIDS Policy/Global Coordinator UNAIDS – United Nations World Food Program; Adjunct Associate Professor, – Johns Hopkins Bloomberg School of Public Health, Baltimore, USA) explains how stunting is the result of inadequate nutrition in early life and how it has severe consequences that last a lifetime. Stunting prevents individuals from achieving their potential, physically, intellectually and economically. Its consequences are severe and irreparable, both for the individual and for society as a whole. While the world has seen significant advances in the field of nutrition since the development of the Millennium Development Goals (MDGs), which were to be reached by 2015, stunting remains a problem of global dimensions: according to the latest report of UNICEF/WHO/World Bank (2012), 165 million children under 5 are stunted, and many school-age children, adolescents and adults today suffer the consequences of the stunting that they experienced during their early years of life. Chapter One outlines the problem of stunting and traces it to inadequate nutrition, especially in the first 1,000 days of life. It argues that the right to adequate nutrition (as opposed to simply food) should be recognized as a Human Right.

Chapter Two, by Marie Ruel (Director, Poverty, Health and Nutrition Division, International Food Policy Research Institute [IFPRI], Washington DC, USA) explains that food security and nutrition security are related but distinct concepts. Infants, young children, pregnant and breastfeeding women are especially vulnerable to undernutrition. For this reason, nutrition interventions must focus on the critical 'first 1,000 days' window of opportunity. Marie Ruel explains how achieving food and nutrition security is a multi-faceted challenge which requires a multi-sectoral approach – a theme which reappears in various forms throughout this book.

Food security is necessary, but not sufficient, to ensure nutrition and to prevent childhood malnutrition. Children also need their caregivers to provide them with appropriate feeding, caregiving, hygiene, and health-seeking practices in order to grow, develop and stay healthy. Food systems can play a critical role in protecting both food security and nutrition if careful attention is paid to targeting the poor, reducing inequalities, including gender inequalities, and incorporating nutrition goals and action where relevant.

The book's third chapter is authored by Hans Konrad Biesalski, Head of Department, Biological Chemistry and Nutrition, University of Hohenheim, Managing Director of the Food Security Center in Stuttgart, Germany. Drawing on Hans Konrad Biesalski's recently published work *Hidden Hunger* (Springer Verlag 2012) this chapter describes the phenomenon of hidden hunger. This term refers to a chronic lack of vitamins and minerals, which is not immediately apparent and which can exist for a long time before clinical signs of malnutrition become obvious. It affects over 3 billion people worldwide, contributing to many millions of deaths especially in children and young females, and also increasing the risk of non-communicable diseases such as diabetes, cardiovascular disease, cancer and osteoporosis. Linked to a general decline in meeting nutritional standards, hidden hunger is also a problem in the developed world. Solutions are nevertheless available: many countries have implemented mandatory or voluntary fortification of folic acid, vitamin D or iodine. The experience of many countries indicates that the fortification of staple or processed foods may be an efficient way to provide an adequate intake of micronutrients.

Eileen Kennedy (Professor of Nutrition and Former Dean of the Friedman School of Nutrition Science and Policy at Tufts University, Boston, USA) authors Chapter Four, which deals with the recent phenomenon of obesity. The current increase in obesity in the global population is unprecedented: Worldwide, approximately 1.4 billion adults are overweight, and 500 million are obese. This phenomenon is closely linked to inadequate nutrition, and is driving a massive increase in the incidence of nutrition and lifestyle-related non-communicable diseases (NCDs). This rise in NCDs is placing an increasing burden on social and healthcare systems. The challenge is daunting. Eileen Kennedy argues that the international community must aggressively implement multi-pronged strategies to combat overweight and obesity, while at the same time tackling undernutrition.

John Hoddinott, Deputy Director, Poverty Health and Nutrition Division, IFPRI, Washington DC, USA, presents Chapter Five, whose subject is the economic cost of malnutrition. In addition to its substantial human costs,

undernutrition has lifelong economic consequences. John Hoddinott argues, however, that there exist feasible solutions to many dimensions of undernutrition, and that fighting undernutrition has considerable economic benefits – most notably in terms of improving schooling, cognitive skills and economic productivity. Spending that reduces both chronic undernutrition and micronutrient deficiencies is an excellent investment in economic terms, and is one of the smartest ways to spend global aid dollars.

John Hoddinott's economic analysis of the problem of malnutrition is followed by a presentation of best practice in nutrition by Victoria Quinn, who is Senior Vice President of Programs, Helen Keller International, New York, USA, and Adjunct Associate Professor, Friedman School of Nutrition Science and Policy, Boston, USA. Explaining that undernutrition is a complex and multifaceted phenomenon, and that it does not have a single cause, or a single solution, Victoria Quinn uses the Conceptual Framework of Young Child Nutrition to explain the causes of undernutrition and outline possible modes of intervention. At the national level, increased government investment in proven nutrition-specific and nutrition-sensitive interventions is essential for improving nutrition, while at the family level, women have a critical role to play.

Victoria Quinn's analysis of best practice in nutrition is complemented by a contribution from Werner Schultink, Associate Director, Nutrition Section, Programme Division, UNICEF, New York, on *How to Improve Nutrition Through Effective Programming*. Werner Schultink concludes that efforts to scale up nutrition programs are working, benefiting women and children and their communities in many countries, and points out that such programs all have common elements: political commitment, national policies and programs based on sound evidence and analysis, the presence of trained and skilled community workers collaborating with communities, effective communication and advocacy, and multisectoral, integrated service delivery.

Chapter Eight is penned by Joachim von Braun, Director of the Center for Development Research (ZEF) and Professor for Economic and Technological Change at the University of Bonn, Germany. Food prices today are not only set by supply and demand but also influenced by financial markets. Joachim von Braun explains how sudden price rises, or 'spikes', cause big problems for nutrition of the poor. He argues that healthy diets need to be affordable, which requires increased productivity in the food system to prevent high prices. Unfortunately poor countries are hit worst by spikes in food prices, as they cannot afford

adjustment measures. The solution therefore needs to be worked on globally, and the issue taken more seriously.

Joachim von Braun's price-specific analysis is followed by a broader interrogation of the governance of nutrition by Stuart Gillespie, Senior Research Fellow, Poverty, Health and Nutrition Division, IFPRI, and CEO of the Transform Nutrition Research Program Consortium. Taking the theme of *Making Nutrition Good Politics*, Stuart Gillespie outlines the potential of governance for improving the nutritional status of the world's poorest and most disadvantaged populations. Believing that progress in reducing undernutrition cannot be sustained where governance systems are weak or absent, he reasons that strong leadership – in the form of ambassadors championing the political cause, as well as more mid-level, lateral leadership to facilitate intersectoral action – is fundamental to success.

While Stuart Gillespie focuses on governance as one of the factors essential for delivering improved nutrition, Tom Arnold (Member of Lead Group of the Scaling Up Nutrition [SUN] movement and former CEO of Concern Worldwide) explains the key role that advocacy has to play. Noting that it requires a solid evidential base in order to succeed, Tom Arnold outlines the importance of presenting arguments in simple and powerful language and of maintaining commitment and momentum over time in order to bring about change. An important political and policy mechanism for achieving progress is the SUN Movement, which brings together governments, civil society and the private sector to work in a coordinated way to reduce early childhood undernutrition. Real progress can be made over the next decade if we deliver on what we know is possible, concludes Tom Arnold.

The following chapter of this book, number Eleven, is unique in being co-written by three authors: Alan Dangour (Senior Lecturer, London School of Hygiene and Tropical Medicine [LSHTM]); Marguerite B Lucea (Faculty Research Associate, Johns Hopkins University School of Nursing [JHUSON]), Baltimore, MD; and Alain Labrique (Director, JHU Global mHealth Initiative and Assistant Professor, Department of International Health & Dept of Epidemiology (jt) Bloomberg School of Public Health). Together they present the power of innovation in the battle against malnutrition. In a chapter packed with topical case studies of innovation in practice, they argue that innovations across the entire span of human nutrition have for centuries targeted aspects of the farm-to-table continuum, and show how recent transformative innovations targeting distribution systems, leveraging public-private partnerships, and utilizing technological advances have the potential to

catalyze research and improve nutrition in both the developed and developing world.

Asma Lateef, Director, Bread for the World Institute, Washington DC, USA, follows with a chapter on the role that civil society has to play in improving nutrition. Describing hunger and malnutrition as an ‘unfinished agenda’, Asma Lateef argues that food security and nutrition should be explicitly addressed in the goals for the post-2015 development framework, and that stunting should be a priority indicator. Civil society organizations are uniquely positioned to advocate for greater attention to hunger and malnutrition, and can play an important role in elevating nutrition as a priority for the next set of goals. She concludes that communicating the fundamental role that good nutrition has to play during pregnancy and early childhood must be part of advocacy efforts in the near future.

The final chapter of the book is written by Saskia de Pee (Adjunct assistant Professor Friedman School of Nutrition Science and Policy, Tufts University, Boston, and visiting assistant Professor, Wageningen University, the Netherlands). Saskia de Pee’s contribution describes how the world of nutrition has evolved in recent decades. Throughout the 20th century, knowledge and approaches for addressing malnutrition developed within specific scientific and professional disciplines, but there was limited cross-disciplinary coordination, even with other players in

the food and health systems. Understanding the forms and consequences of undernutrition, being able to cost the economic impact of undernutrition, and having examples of what is required and what works to prevent undernutrition, including good governance, has generated the strong momentum behind nutrition that exists today. The involvement of so many is essential, and while everyone should focus on what they are good at, Saskia de Pee argues, there is a great deal of cross-disciplinary work to be done in a target-oriented manner. It is important to develop context-specific solutions based on the global body of knowledge and expertise, and to monitor, evaluate and share these experiences using the information and communication technology available today.

Finally Patrick Webb, Dean for Academic Affairs, Friedman School of Nutrition Science and Policy, Tufts University, Boston, USA, provides an eloquent afterword to this volume. “This book,” he writes, “captures the fact that there has not been a time in recent decades when so many people agreed on what needs to be done or why. The momentum has to be maintained. The next decade of the 21st century should be focused squarely on a global effort to get it done well, while documenting how. Unless coherent, cost-effective actions with measurable impacts quickly emerge from the current cresting wave of goodwill toward nutrition, the wait for another may be far too long. Now is the time.”



A well-nourished mother and infant: Elizabeth Farma 16, breastfeeds her two-month-old son Emmanuel at the Bonthe District Hospital, Sierra Leone

Source: UNICEF/NYHQ 2010-0952/Olivier Asselin



Malnourished mother breastfeeding her newborn in Kenya: the signs of malnourishment are evident in both mother and child

Source: Mike Bloem Photography

Case study

Maternal undernutrition – a mother's story (Bangladesh)

Farida is a Bangladeshi housewife of 23. She lives in the Sreepur Upazila, a rural subdistrict close to the capital, Dhaka. Married at the age of 17, within a year she fell pregnant. During her pregnancy, Farida had no access to skilled prenatal care or education. To stay healthy and aid her pregnancy she wore a *tabij* (a charm amulet) and drank *paani puri* (a mint drink). Unfortunately, after going into premature labor she lost her baby within half an hour of delivery. Two years later, Farida became pregnant once more, but received limited medical attention. Tragically her second child arrived stillborn.

Several months later, Farida met a Community Nutrition Worker from Plan Bangladesh's affiliate Prankteek, called Nurunnahar. She advised Farida to attend Plan's notional information sessions. At these sessions she learnt the importance of prenatal care, a nutritious diet and receiving proper rest during pregnancy. The lessons learned in the nutrition sessions were complemented by regular household visits from Nurunnahar, during which Farida could consult with her on questions or concerns.

When Farida became pregnant for a third time, she went to medical centers near her home for regular prenatal visits. On this occasion, she gave birth to a healthy baby boy. She breastfed him after delivery, and continued exclusive breastfeeding until her son was six months old. Now 17 months old, Farida's son is happy, healthy and keeps her very busy! Farida is thankful for her son, and wants others to be able to have the same opportunities for care that she did. "I have lost my first two children through ignorance," she said. "I don't want any other mother to have the same experience. I am grateful to Nurunnahar."

*Source: Thousand Days Partnership, USA
<http://thousanddays.org/success-story/material-undernutrition-a-mothers-story> June 2011 (abridged)*

The One Thousand Days Mission

The 1,000 days between a woman's pregnancy and her child's 2nd birthday offer a unique window of opportunity to shape healthier and more prosperous futures. The right nutrition during this 1,000-day window can have a profound impact on a child's ability to grow, learn, and rise out of poverty. It can also shape a society's long-term health, stability and prosperity.

Today, undernutrition is still a leading cause of death of young children throughout the world. For infants and children under the age of two, the consequences of undernutrition are particularly severe, often irreversible, and reach far into the future.

During pregnancy, undernutrition can have a devastating impact on the healthy growth and development of a child. Babies who are malnourished in the womb have a higher risk of dying in infancy and are more likely to face lifelong cognitive and physical deficits and chronic health problems.

For children under the age of two, undernutrition can be life threatening. It can weaken a child's immune system and make him or her more susceptible to dying from common illnesses such as pneumonia, diarrhea and malaria.

*Source: Thousand Days Partnership, USA
<http://thousanddays.org/about/>*

One Thousand Days Organization

Solutions to prevent and treat undernutrition already exist. Every day, 1,000 Days partners are putting proven solutions into action in communities around the world. By working in alignment with the Scaling Up Nutrition (SUN) Framework, 1,000 Days partners join a movement to work across sectors and specialties to achieve better nutrition results. By prioritizing proven nutrition solutions, progress is being made and lives are being changed for the better. Strong nutrition programs, sound policies and better investments can make a difference in the lives of mothers and children today in a way that dramatically improves the health and well-being of future generations of individuals, families and communities.

*Source: Thousand Days Partnership, USA
<http://thousanddays.org/resources/success-stories/>*