Early Nutrition, Health and Integrative Development in Peru. Results of an International Course promoted by the International Union of Nutritional Sciences (IUNS) through the Iberoamerican Nutrition Foundation (FINUT)

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In 2011 the International Union of Nutritional Sciences (IUNS) in conjunction with the Spanish Society of Nutrition (SEÑ) created the Iberoamerican Nutrition Foundation (FINUT; www.finut.org). This is a non-profit organization whose aims are to promote knowledge, research, development and innovation in the area of Nutrition and Food through international cooperation in the setting of Iberoamerica (Latin American countries, Spain and Portugal), and to identify and evaluate problems of public interest related to Nutrition and Food and set up appropriate programs to provide coherent scientific responses to these problems with the collaboration of national and regional governments, universities, other public research centers and private entities. The FINUT Board of Trustees is comprised of members designated by the IUNS, the SEÑ and the Latin American Society of Nutrition, an affiliated body of the IUNS.

As part of the IUNS program ‘The Way to the 21st International Congress of Nutrition’, in preparation for the congress in Buenos Aires in 2017, the FINUT together with the Peruvian Ministry of Health (MINSA) organized last April in Lima an international course on ‘Early Nutrition, Health and Integrative Development: Evidence for the Implementation of Policies and Programs’ that was attended by more than 1300 participants, most of them physicians, nutritionists and other health professionals involved in public health nutrition activities in different regions of Peru and working in public and private sectors as well as universities and non-governmental organizations.
Infant chronic undernutrition (ICU) has been dramatically reduced in Peru during the last 10 years, from 28.5% in 2017 to about 17.5% in 2013 and 14.5% in 2014 [1]. Reduction of ICU is one of the most important priorities for the Peruvian State and it is expected that its prevalence will decrease to 10% by 2016. Concerning anemia, there has also been a significant reduction in children below the age of 3, from 60.9% in 2000 to 46.8% in 2014. Nevertheless, anemia continues to be a public health problem as it affects one of two children between 6 and 36 months of age and it affects all children regardless of their social status. Both ICU and anemia continue to be relevant issues in Peru and there is enough scientific evidence that they are harmful for infant development as they are associated with impaired cognitive development during infancy and later they are related to a lower learning capacity, physical activity, language and child’s emotional development, which in turn would limit child performances.

The Peruvian State and the MINSA have reaffirmed their commitment regarding the importance of adequate early nutrition in early infancy. Among a number of actions, they have strengthened inter-governmental and inter-sectorial actions and have significantly augmented their funds to control those important public health problems. In fact, in 2013 a Sectorial Commission has prepared the ‘National Plan for the Reduction of ICU and Prevention of Anemia 2014–2016’, and in 2014 a National Committee of Experts in Nutrition has been appointed to generate new mechanisms of intervention oriented towards reducing the incidence and prevalence of both ICU and anemia. Besides undernutrition and anemia, overweight and obesity constitute the other burden of malnutrition in Peru [2]. Both entities are growing with advancing age and they are linked to the rapid increase of non-communicable chronic diseases (NCDs) in adult age, with the associated increase of costs for the National Health System. Thus, in 2011 the prevalence of overweight children below the age of 5 was 5.8%; that of age 5–9 was 16.9% and that of age 10–19 15.8%. The prevalence of obesity reached values of 10.3 and 4.6% for children aged 5–9 and 10–19 years, respectively. These figures are even worse in young adults (20–29 years), where the prevalence of overweight and obesity are 33.4 and 7.5%, respectively, and in adults (30–59 years) of which 46 and 19.7% are overweight or obese, respectively.

There is a body of scientific evidence for a relationship between malnutrition at an early age and overweight, obesity and associated NCDs later in life [3–5]. It is within this context that the FINUT and MINSA considered it of relevance to organize an international course on the importance of early nutrition on health and integrative development, addressed to health professionals to enhance their knowledge on this hot topic. The course was officially opened by the Minister of Health of Perú, Dr. Aníbal Velasques-Valdivia, and the FINUT President, Prof. Ángel Gil, followed by a lecture by Dr. Percy Minaya-León, Vice-Minister of MINSA, about the current nutritional situation of Peru and the basis of the new national strategy of food and nutrition.

The second session focused on the relevance of early nutrition and its effects on health. Indeed, Dr. Reynaldo Martorell, Prof. of Public Health Nutrition at the University of Emory in Atlanta, USA, and member of the IUNS Council, talked about the importance of nutrition during the first 1000 days of life. Prof. Gil dealt with genetic susceptibility to obesity and metabolic syndrome in early infancy and later consequences in adult life, and Prof. Alfredo Martínez, from the Department of Nutrition at the University of Navarra, Pamplona, Spain, and President-Elect of the IUNS, tackled the epigenetics of undernutrition and obesity.

The third session was devoted to the importance of anemia and micronutrient deficiencies in infancy and
childhood. Dr. Miguel Arredondo from the Institute of Nutrition and Food Technology (INTA) of the University of Chile, Santiago, Chile, talked about the biomarkers of anemia and other micronutrient deficiencies; Dr. Nelly Zavaleta from the Institute of Nutritional Research, Lima, Peru, discussed the integrative handling of nutritional anemia in the child; and Dr. Lynnette Neufeld, Director of Monitoring, Learning and Research at the Global Alliance for Improved Nutrition (GAIN), Geneva, Switzerland, and member of the IUNS Council, commented on the World Health Organization recommendations for iron and other micronutrient supplements for children below the age of 3.

The fourth session was dedicated to critical aspects related to chronic undernutrition and development in infancy and childhood. Dr. Martorell talked about chronic undernutrition in children and its effects later in adulthood; Prof. Gil discussed what we currently know about the role of fatty acids, particularly long-chain polyunsaturated fatty acids, on the development of infants and children. In addition, Dr. Lorena Alcazar from the GRADE (Grupo para el Analisis del Desarrollo), INS-CENAM, MINSA, presented the main factors associated with chronic undernutrition in Peru for the period of 2007 to 2013, and Dr. Ariela María de los Milagros Luna Flórez, Vice-Minister of Policies and Social Evaluation from the Ministry of Development and Social Inclusion of Peru, and Dr. Minaya presented inter-sectorial and inter-governmental policies and strategies to combat undernutrition and improve early infant development in Peru.

The fifth session addressed the double burden of malnutrition on a global perspective. Prof. Luis Moreno from the School of Health Sciences at the University of Zaragoza, Spain, talked about the double burden in children of school age and adolescents and how it is related to NCDs, and Prof. Benjamin Caballero, Bloomberg School of Public Health, Johns Hopkins University, Baltimore, USA, discussed how adequate nutrition can contribute to prevent NCDs.

The last session started with a plenary lecture by Prof. Caballero on the ‘Perspectives and Challenges of Nutrition in the 21st Century’, and finally there was a Round Table on the ‘Peru Agenda 2021’ that tackled the improvement of nutrition as a strategy to ameliorate child development at the national level, with the participation of Dr. Minaya, Dr. Luna, Mr. Francisco Dumler, Vice-Minister of Construction and Sanitary Upgrade and Mr. Federico Armillas, responsible for the ‘Table of Coordination Against Poverty’.

The specific questions addressed to speakers and the general discussion about the specific topics should contribute to better define the current Peruvian strategies and policies to combat the double burden of malnutrition in the future.

References