

# Proposal and Actions to Decrease Malnutrition in Latin America and the Caribbean

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## VII Latin American Workshop on Leadership in Nutrition

### Abstract

While some of our countries are still facing nutrition deficiencies (stunting/short stature and micro-nutrient deficiencies), overweight and obesity are increasing in an alarming way. In addition, a very limited research network and lack of funding make it extremely challenging to foster collaborative efforts to address the complex nutritional problems that Latin America is facing. Therefore, as the future leaders in nutrition, we reinforce our commitment to improve our research capacity to identify opportunities for action to end malnutrition in all its forms in our region to address health disparities and to strengthen the Latin American Society of Nutrition.

### Keywords

Latin America, leadership, malnutrition, LILANUT

### Introduction

Since 1997, every 3 years, prior to the Latin American Nutrition Society (SLAN) conference, the Latin American Nutrition Leadership Workshop takes place. The aims of these workshops are to promote communication and teamwork skills and to support the development of future leaders in nutrition in Latin America and the Caribbean (LAC) region. We participated in the VII Workshop (November 2-7, 2015; Santo Domingo, Dominican Republic). During the workshop, we worked on developing our leadership skills, strengthening our nutrition commitments, acknowledging our weakness and strengths, and on improving our teamwork skills. A central topic that surrounded workshop's discussions was the double burden of malnutrition (DBM) in LAC. Senior investigators and leaders in food and nutrition in the region shared their knowledge,

experiences, thoughts on their nutrition commitments, and the opportunities and barriers they faced working toward them, their professional trajectories, how they have been dealing with conflict of interests in research, and their interactions with local governments and in cross-country collaborations.

As part of our activities, we created a proposal aimed at reducing malnutrition in all its forms in LAC that included 4 lines of action (communication and education, research agenda, programs and policies, and funding). We present our proposal in this article. Part A is the proposal of

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actions that we believe the nutrition community should perform, and Part B is the actions that we are performing during this period (2016-2018).

### *The Malnutrition Problem in LAC*

Over the last few years, overweight obesity, and noncommunicable chronic diseases prevalence have risen across LAC because of, among other things, rapid demographic and socioeconomic changes, shifts in occupational structures, and changing patterns of diet and physical activity.<sup>1,2</sup> However, stunting and micronutrient deficiencies still persist in LAC, particularly in the countries of the Andean and Mesoamerican regions.<sup>3-6</sup>

Undernutrition and overweight may coexist in the same household or in the same individual, which is known as the DBM.<sup>7</sup> Recent data from 7 LAC countries showed that the percentage of households with a stunted child and an overweight or obese mother ranged from 20% in Guatemala, 13.1% in Ecuador, and 8.4% in Mexico to 6.3% in Uruguay, 5.1% in Colombia, and 2.7% in Brazil.<sup>4-11</sup> Moreover, at the individual level, the prevalence of overweight/obesity and iron or zinc deficiency in preschool- or school-aged children ranged from 1.2% in Brazil to 8.4% in Ecuador, and in women of reproductive age, it ranged from 3.4% in Colombia to 13.6% in Brazil.<sup>5,9,10</sup>

## **Part A: Proposal of Actions for the Nutrition Community in LAC**

### *Communication and Education*

#### *Communication*

- Advocate for the fight against the DBM in LAC countries.
- Raise civil society and policy makers' awareness regarding DBM problem, its consequences, and strategies to reduce its burden.

Create alliances and establish continuous communication with international, national, and local scientific societies, nongovernmental organizations, institutions, and experts from different disciplines (ie, agriculture, economics, politics, and environmental sciences) to

develop more comprehensive, intersectoral, and effective approaches to reduce malnutrition in LAC.

#### *Education*

- Promote the inclusion of topics related to the DBM, sustainable development goals sustainable food systems, food and climate change and social determinants of nutrition as a cross-cutting component in the curricula of undergraduate and graduate public health and nutrition programs.
- Create and promote practical internship programs between countries to interchange, learn from each other, and make collaborative work to tackle malnutrition.
- Promote interactions between health professionals and indigenous populations to jointly develop culturally appropriate strategies to reduce DBM.

### *Research Agenda*

- Collect up-to-date and nationally representative data for mapping the magnitude of malnutrition in LAC countries where data are not available.
- Promote an inclusive monitoring of the nutritional status by studying and reporting across groups of different socioeconomic strata, indigeneity, ethnicity, geography, and urbanicity.
- Further study the social determinants of the DBM, as well as the consequences on health and human capital.
- Identify efficacious interventions aimed at addressing the DBM using a life course approach.
- Evaluate current public health interventions, policies, and programs focused on addressing malnutrition.
- Identify interventions, policies, and programs that are successful in each country and how they can inform governments of the entire region.

## Policies and Programs

- Develop policies and programs focused on reducing the burden of the DBM and improve existing policies and programs.
- Coordinate and integrate policies and programs from different sectors in a common agenda that considers the DBM. Most of current policies and programs in LAC aim to address either undernutrition or excess weight. Their lack of coordination and alignment are a missed opportunity to tackle DBM effectively and can bring unintended consequences. For example, food supplementation programs created to prevent micronutrient deficiencies do not necessarily consider increased energy intake of subgroups at risk of obesity.
- Create capacity building to design effective food and nutrition programs for children under 5 years old, women in reproductive age, pregnant, and lactating women and culturally appropriate nutrition programs for indigenous people.

## Funding

- Ensure that research, dissemination of findings and information, and implementation of activities are free of potential conflicts of interest fulfilling the conflict of interest guidelines proposed by the SLAN.

## Vulnerable Populations

- Devote attention to:

*Children under 5 years, women in reproductive age, pregnant, or lactating women.* Malnutrition during the intrauterine period and the first 2 years of life is a key risk factor for delayed linear growth, morbidity in the short- and long-term and infant mortality. Moreover, it can cause irreversible damage in cognitive and motor development.<sup>3,12</sup>

*Indigenous people.* Latin American history led to unequal life conditions and land tenure,

compromising food and nutrition security and health of indigenous people,<sup>13-15</sup> which in 2010 accounted for 23% of LAC's population.<sup>16,17</sup> Stunting prevalence in children under 5 years is 1.5 to 3.2 times higher in indigenous than that at the national level in Guatemala (70% vs 46%), Ecuador (42.3% vs 25.3%), and Panamá (62% vs 19%).<sup>5,18</sup> The same pattern was found for overweight children in Ecuador<sup>5</sup> and for the DBM in Guatemala and Mexico.<sup>4,6</sup>

## Scientific Program of the 2018 SLAN Conference

- Include the following topics in the next 2018 SLAN conference scientific program:

*Double burden of malnutrition.* With an emphasis on the evaluation of strategies to address its burden in the region.

*2030 sustainable development goals.* We must be part of this call for action, particularly in relation to goal #2 (End hunger, achieve food security, improve nutrition, and promote sustainable agriculture).<sup>18</sup>

*The intersection between agriculture and nutrition.* Share experiences with professionals from other disciplines, such as experts in organic farming, climate change, and indigenous communities.

*Social determinants of nutrition.* Latin America and the Caribbean is a region with huge inequalities, bringing the need for a deeper understanding of the nutritional implications and how to address such inequalities.

*Social marketing.* Social marketing techniques should be incorporated into public health nutrition as a tool to improve healthy eating and physical activity.

*The role of the industry in population's diet.* Opportunities for discussion are necessary for agreements on food regulation, the design of healthier products, and avoidance of conflict of interest to be achieved.

## Part B: Actions That We Are Currently Executing (2016-2018)

Our intention has been to extend the purpose of the program of Latin American Workshops on Leadership in Nutrition and create a network among all former participants of the LAC Nutrition leadership workshop. As part of this proposed network, we, the 2015 Latin American Workshop on Leadership participants, are taking on the lead, coordinating the network, and focusing on the following actions:

### Communication and Education

- Define a name, acronym, and logo for our program. A selection process among all Latin American Workshop on Leadership former participants took place and a name, acronym, and logo of the proposed network were chosen: Latin American Nutrition Leadership Program (*Programa LILANUT* for its acronym in Spanish and Portuguese). To see the logo visit: <https://www.slaninternacional.org/lilanut>
- Promote the communication and collaboration among a network of the *Programa LILANUT* through: (a) New section in the SLAN webpage (<https://www.slaninternacional.org/lilanut>) where we have background information on our program and a blog with updates of the activities that we are performing, and (b) a Facebook group of former participants, where we share information and experiences related to SLAN's and *Programa LILANUT* activities and updates, relevant events and news, courses and workshops, new key scientific publications, and leadership resources.
- Interact with former participants of nutrition leadership workshops from other parts of the world. We organized a symposium entitled "*Meeting of the Nutrition Leadership Programmes*" that took place on October 27, 2016 at the Micronutrient Forum, Cancun, Mexico. The session had presentations from the Latin American (*programa LILANUT*), African nutrition leadership program,

and European nutrition leadership program. During the session, it was also discussed the plans for a Global Nutrition Leadership Program. We also participated in several activities organized by the nutrition leadership programs from around the world that was held in the International Congress on Nutrition on October 2017, Buenos Aires, Argentina. The activities include a symposium entitled "Towards Global Leadership in Nutrition," an informal gathering, and the "3rd Young Scientist Award."

### Research Agenda

- Create research collaborations and lead the analysis and publication of the following topics:
  - Malnutrition (undernutrition and excess BMI) prevalence by socioeconomic variables in LAC countries with national health surveys. We organized a symposium entitled "*Malnutrition in all its forms and socioeconomic indicators in Latin America: Who are more affected?*" This was presented at the International Congress on Nutrition on October 15, 2017, Buenos Aires, Argentina. In the symposium, we presented analyses that followed a common methodology; the end-goal is to publish a supplement of the symposium in a scientific journal. Participating countries are Argentina, Bolivia, Brazil, Colombia, Chile, Ecuador, Guatemala, Mexico, Peru, and Uruguay. The team, in most of the countries, is led by participants from the *programa LILANUT*.
  - Malnutrition prevalence among indigenous populations. In the analyses described above, we are also analyzing malnutrition prevalence by race/ethnicity.
  - Double burden of malnutrition prevalence using zinc deficiency as the undernutrition marker. We are

evaluating this prevalence at the individual level given zinc deficiency's relation with stunting in children under 5 years. The analysis includes countries with this data available: Colombia, México, Ecuador, and Guatemala

### **Policies and Programs**

- Create infographics of current nutrition policies in LAC. We are developing infographics to summarize the policies available according to the NOURISHING framework, proposed by the World Cancer Research Fund. The infographic of each country will have information and details on the design, implementation, monitoring, and evaluation of the related nutrition policies. The infographics will be available in our blog (<https://www.slaninternacional.org/lilanut>). The purpose is to compile and facilitate the access to this information so that we enable the sharing and learning of experiences between countries.

### **Funding**

- Develop an inventory of potential funding sources to the best of our knowledge with no food industry-related interests geared toward researchers and professionals of nutrition in LAC. This inventory will be available to all LAC nutrition professionals in our blog (<https://www.slaninternacional.org/lilanut>).
- Have 2 representatives of the *Programa LILANUT* in the committee that is creating the guidelines for conflict of interest in conferences and activities coordinated by the SLAN. We invited all participants of the *Programa LILANUT* to volunteer for this activity, and we carried out a random selection process among those that were interested. Our 2 representatives are Manuel Ramírez-Zea (2000 leadership workshop); and Deborah Navarro-Rosenblatt (2015 leadership workshop). The COI document has been published at: <https://>

[www.slaninternacional.org/conflicto-interes/docs/170801\\_Postura\\_CDI\\_SLAN\\_2017.pdf](http://www.slaninternacional.org/conflicto-interes/docs/170801_Postura_CDI_SLAN_2017.pdf)

- Be part and support the scientific committee of the next Latin American Society of Nutrition Congress that will be held next November 2018 in Mexico and to organize the VIII Latin American Workshop on Leadership in Nutrition.

To sum up, while some of our countries are still facing nutrition deficiencies (stunting/short stature and micronutrient deficiencies), overweight and obesity are increasing in an alarming way. In addition, a very limited research network and lack of funding make it extremely challenging to foster collaborative efforts to address the complex nutritional problems that Latin America is facing. Therefore, as the future leaders in nutrition, we reinforce our commitment to improve our research capacity, to identify opportunities for action to end malnutrition in all its forms in our region, to address health disparities, and to strengthen the Latin American Society of Nutrition.

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### **Authors' Note**

All authors contributed to the conception, design, development, and/or writing of this proposal during and/or after the workshop. Ana Clara Duran, Carolina Batis, Mónica Mazariegos, Gustavo Cediel and Ana Inés Soruco led the writing of the manuscript. All authors approved the final version of the manuscript.

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