

## Editorial

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### Translational Nutrition: translation of nutrition research and innovation into efficient actions in public health and clinical practice

Nutrición traslacional: traducción de la investigación e innovación en nutrición en acciones eficientes en la salud pública y la práctica clínica

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Limited and scarce scientific research in a country is an obstacle to its development and the generation of alternative solutions to dynamic and changing public health priorities. Applied scientific health research contributes to improved knowledge and better understanding of the strategies and solutions required to improve the needs of the public health sector. Strengthening applied research in middle income countries will lead to numerous benefits at different levels; from cultivating academic training, stimulating critical thinking and increasing self satisfaction and motivation of health practitioners to improving the effectiveness and efficiency of health systems. Certainly, the patients and general population will receive the most benefit since access to evidence-based recommendations will promote better practical standards to improve the quality of life (1).

Results from scientific research have been distributed unevenly among different populations. For the most part, health research is rarely translated into practical public health actions in developing countries. Evidence-based estimates indicate that on average 17 years are needed to translate 14% of scientific research into health practice (e.g.: clinical practice guidelines for the management of hypertension or cost-effective actions to prevent obesity, etc). This estimate is attributed to a number of factors in the research process including generating the results, writing and publishing manuscripts, indexing in bibliographic databases, including publications in systematic reviews, taking them into account during the development of evidence-based guidelines, and finally disseminating and implementing population and clinical practice guidelines with concrete actions for the benefit of public health (2).

In Latin America, only a minority of the research that gets done eventually develops into health interventions, programs or policies. Nevertheless, there are numerous research results waiting to be translated into specific actions for the benefit of society. However there is inadequate scientific information on how research results can be converted into effective and efficient strategies to bring this information to the public.

In order to be able to maximize the benefits of scientific research, many countries have taken into account the needs and quality of life of the population to set priorities for health research. In this process two scenarios have been considered: The first one sets priorities on the mechanisms and processes of health services trying to balance efficiency, effectiveness, coverage, and financing costs to achieve equity and social justice. The second one sets priorities on interventions that are likely to improve the health of the general or specific populations, taking into consideration the distribution of health and disease, social preferences and available resources (3).

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Costa Rica established seven priorities for health research: 1) Health Systems and Policies 2) Health Economics, 3) Morbidity and Mortality, 4) Food and Nutrition, 5) Social Problems in Health, 6) Technology Management, and, 7) Development of Human Resources for Research (4).

To date, research in these areas as in others is mostly scattered, lost, unnecessarily duplicated or relatively unknown, decontextualized, and sometimes biased or following the idiosyncrasies of decision makers. These fallouts result in the implementation of actions that are not cost-effective and frequently in the discontinuation of successful ones.

Given the current situation, it is crucial to implement actions or lines of work to reduce the gap between theory and practice and ensure the transformation of scientific evidence into effective and efficient public health actions and clinical practice. This need highlights the demand for translational research, a field that focuses on the identification of successful strategies to transform results from research studies into evidence-based practical recommendations. Thus, results from translational research would provide evidence-based strategies to disseminate the most accurate and up to date scientific results to the general population in real-world environments (5).

Consistent with the Costa Rican health research priorities and the worldwide demand for better translation of research results into real-world applications the School of Nutrition at the Universidad Hispanoamericana of Costa Rica in collaboration with the Department of Nutrition, at the Harvard T.H. Chan School of Public Health undertook the challenge to develop a research agenda on translational research with an emphasis on food and nutrition, by creating the Center for Research and Innovation in Translational Nutrition (CIINT, for its acronym in Spanish) (4). The mission of this center is to identify and implement sustainable optimal translational strategies that will result in long-term adherence to evidence-based dietary recommendations and healthy lifestyles.

Specifically, the CIINT will: 1) gather the best scientific information in nutrition to develop culturally acceptable evidence-based dietary recommendations to improve the quality of life; 2) Investigate intrinsic and extrinsic motivators to characterize individuals according to "NutriSocial Identity Profiles" that will facilitate approaches to promote positive changes in lifestyle; 3) Use this information to develop a sustainable, effective and efficient nutrition program with adaptable modular components that can be tailored according to the specific needs of clinics, schools, private and public institutions and government agencies.

#### **Conflictos de Interés**

Los autores declaran no tener conflictos de interés con la publicación de este artículo.

#### **Referencias Bibliográficas**

1. Martin BR, Tang P. The benefits from publicly funded research. *Sci Policy Res Unit Univ Sussex* [Internet]. 2007 [citado 7 de julio de 2015]; Recuperado a partir de: <http://core.ac.uk/download/pdf/7372156.pdf>
2. Green L, Ottoson J, García C, Hiatt R, Roditis M. Diffusion theory and knowledge dissemination, utilization and integration. *Front Public Health Serv Syst Res* [Internet]. 3 de marzo de 2014;3(1). Recuperado a partir de: <http://uknowledge.uky.edu/frontiersinphssr/vol3/iss1/3>
3. Baltussen R, Niessen L. Priority setting of health interventions: the need for multi-criteria decision analysis. *Cost Eff Resour Alloc*. 2006;4(1):14.
4. Alger J, Becerra-Posada F, Kennedy A, Martinelli E, Cuervo LG. National health research systems in Latin America: a 14-country review. *Rev Panam Salud Pública*. noviembre de 2009;26(5):447-57.