FINAL TECHNICAL REPORT / RAPPORT TECHNIQUE FINAL
ANEXO IV-A) PROGRAM EVALUATION EXECUTIVE SUMMARY

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IDRC Grant / Subvention du CRDI: 108167-001-Scaling Up and Evaluating Salt Reduction Policies and Programs in Latin American Countries
Evaluation of a multi-national dietary sodium research program in Latin America

Executive Summary

A program evaluation of the grant “Scaling up and Evaluating Salt Reduction Policies and Programs in Latin American Countries”, funded by the International Development Research Centre (Grant #108167, 09/2016 to 03/2020).

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Executive Summary

This report is a summative evaluation of the project “Scaling up and Evaluating Salt Reduction Policies and Programs in Latin American Countries” which was funded by the International Development Research Centre (IDRC Grant 108167, 09/2016 to 03/2020). The evaluation activities were conducted from December 2019 to February 2020.

The objective of this IDRC funding was to conduct research to support healthy food systems. This grant specifically aimed to scale up and generate knowledge and research innovations to drive policies and programs for dietary sodium reduction, with a goal of reducing population sodium intakes and improving cardiovascular health. The participating countries were Argentina, Brazil, Costa Rica, Paraguay and Peru.

This program evaluation examined short term Research and Consortium-level outcomes that occurred over the 3.5 year funding period, from September 2016 to March 2020, as defined by a logic model that was generated at program initiation (Figure). Specifically, the outcomes in this report include:

1. Research conducted, data generated and innovations scaled-up or created
2. Newly formed and/or strengthened, engaged and activated multi-sectoral and multi-disciplinary partnerships,
3. Equitable, diverse and inclusive partnerships and collaborations formed
4. Confidence, capacity, and scientific abilities to conduct research to address public health nutrition issues in Latin American countries (LAC) is increased

The logic model also defined Intermediate Outcomes that focused on policy and program changes at the national level that are related specifically to dietary sodium reduction. While it was unlikely these outcomes would occur over the funding period, they were captured and documented as part of this evaluation. Achieving these intermediate outcomes are critical to reaching the long-term goal of reduced morbidity and mortality from cardiovascular diseases.

The Consortium was coordinated by Adriana Blanco Metzler (Principal Investigator) and her team at Costa Rican Institute for Research and Teaching in Nutrition and Health (INCIENSA) in Costa Rica. Each member of the Costa Rican team coordinated regionally 1-2 objectives in coordination with the Principal Investigator. Each country had an assigned research lead and several researchers who had leadership roles in seeing the research projects through to completion. A core advisory group was established to provide guidance to the Costa Rican coordinating team in relation to project governance: PAHO, the University of Toronto, and Ontario Tech University. Scientific and technical support was provided by researchers at the University of Toronto, Ontario Tech University, Université Laval, the University of South Florida and the University of Liverpool. The researchers received support in knowledge dissemination from the InterAmerican Heart Foundation (policy brief and organization of webinars), and from the researchers and international organizations (PAHO) that assisted in providing scientific and technical support.
Overview of Findings

Research conducted, data generated and innovations scaled-up or created

Knowledge was generated and disseminated to ensure the research reached target audiences who could benefit from the data, and to inform dietary sodium policies and programs.

- Knowledge on the sodium content of over >8300 packaged foods and 100 street, artisanal and fast foods has been generated.
- Quantification of the number packaged foods that exceed regional and/or national sodium reduction target levels has been established.
- An understanding of barriers and facilitators to limiting discretionary salt use among target populations in each participating country has been established.
- In two countries, the health and economic impacts of population-wide dietary sodium reduction programs were determined.
- A comprehensive knowledge translation plan was developed in each country, to translate the research findings to knowledge users.
- To date, this work has generated 13 peer-reviewed journal articles are published, in press or under review. Several more manuscripts are planned or in progress. Several technical reports have also been prepared.
- Overall, 490 knowledge translation activities occurred. Of these, 29% were to civil society, 24% were to other researchers, 16% were to health and education stakeholders, 12% were to government, 12% were to international partners, 6% were to the industry and food services sector.
- A regional policy brief with the most important results of the project and political recommendations was generated and launch in a political meeting in Costa Rica. This document will be used by other countries to update the government and propose policies.

Several innovations were created and/or scaled-up as part of this research. Many of these will be available for use in the future. Many of these innovations can now be scaled-up to other LAC and for use to address other public health issues.

- FLIP-LAC was adapted by the University of Toronto, with technical support from Dietitians of Canada, to enable the acquisition and storage of data from packaged foods. This will be made available to LAC countries in the future.
- A branded food database in each country has been developed. This can be used to explore other nutrients of public health concern, evaluate national food policies (sodium targets in Argentina and Costa Rica, new FOP law in Peru) and public health nutrition topics such as front-of-package labelling and marketing to children.
- A social marketing training program was developed. Countries throughout Latin America can now access this training program on the PAHO Virtual Campus.
- A regional social marketing and communication plan was developed. This will be available to other LAC countries to adapt to their national context.
- Knowledge translation workbooks were created to guide the development of knowledge translation plans to promote maximal reach of research products.
Newly formed and/or strengthened, engaged and activated multi-sectoral and multi-disciplinary partnerships

Forming partnerships and collaborations was critical to achieve success in conducting this work, as well as in translating the outputs to achieve policy impact. Many partnerships and collaborations were reported with the national governments (82%), educational institutions (82%), non-governmental organizations (73%), research institutions (64%), the scientific community (55%) and regional governments (55%). The partners and collaborators were engaged at various time points, which typically aligned with their role (i.e., conducting the research, disseminating the research to stakeholders, using the data to make decisions about national or regional policies, etc).

The researchers also worked together collaboratively and reported a high level of satisfaction in their experience as part of this grant. A number of factors were found to contribute to this high level of satisfaction, including social connections with fellow collaborators and other researchers, a supportive culture and loyalty and commitment to the project. The Consortium lead, Adriana Blanco Metzler, is a highly experienced public health nutrition researcher with over 36 years of experience. Her credibility, perseverance, dedication and productivity strongly influenced the successful collaborations within the consortium and overall engagement of researchers across 4 other countries.

Equitable, diverse and inclusive partnerships and collaborations formed

The consortium included researchers from multiple disciplines and at various stages of their research career. This allowed for both mentorship and interdisciplinary collaboration within the Consortium. Three out of 5 country leads were women, and there was a very high proportion of women who led research projects within the countries.

Confidence, capacity, and scientific abilities to conduct research to address public health nutrition issues in Latin American countries (LAC) is increased

The Consortium developed a number of training and education programs to build research capacity among its members. Overall, researchers reported that they had improved scientific abilities, social marketing skills, knowledge translation skills, language skills, and professional skills related to research leadership, networking and communication. Approximately 25 undergraduate, graduate and postdoctoral trainees used the Consortium research projects to fulfill the requirements of their training programs.

Intermediate outcomes achieved

It was not expected that research projects could achieve the intermediate outcomes, however there were several areas of success. Listed here are highlights of some of the successes:

- The Costa Rican Ministry of Health and the CACIA, Cámara Costarricense de la Industria Alimentaria (Costa Rican Chamber of the Food Industry) renewed their alliance and shared commitment to sodium reduction in the food supply, which includes supporting updated sodium targets for the packaged food supply.
The Pan American Health Organization Technical Advisory Group on Cardiovascular Disease Prevention through Population-wide Dietary Sodium Reduction committed to revising the regional sodium reduction targets.

Using the skills developed from the Consortium research, similar principles were applied to other nutrients of public health concern and nutrition labelling issues (as part of an extension funded by the IDRC). This data can provide the basis for future research projects.

In Peru, a new law on front-of-package labelling informed using the data generated from this research.

Costa Rica formed collaborations with the University of Costa Rica and with Dr. Simón Barquera, at the Center for Research in Nutrition and Health of the National Institute of Public Health in Mexico to use the packaged food database to inform policies on marketing and food environments.

In Paraguay, municipal governments have used the qualitative research data, generated to inform the social marketing plan, as a basis for banning saltshakers in restaurant and food service establishments.

In several countries, advances have been made in adapting the regional social marketing plan and communication plan to national contexts. Advocacy efforts are underway to promote national implementation.

Recommendations

This multi-national research Consortium successfully achieved the intended objectives. It produced high quality and impactful data related to outcomes that are highly relevant to improving political innovations and food systems. Despite the high level of success, the program evaluation identified areas of improvement related to 1) project logistics, 2) training and education, 3) contract negotiations and agreements, 4) budget considerations 5) partnership time commitments 6) knowledge translation 7) time zone etiquette. These areas of consideration will support the success of future multi-national research consortiums.

Conclusions

This project illustrates the benefits of collaborative work in research carried out by a consortium of countries with the support of international technical assistance. The dedicated efforts of the team generated local and regional scientific evidence for decision-making in sodium reduction policies and programs, innovations in systems food, as well as innovative approaches from the technological, political to the methodological. It is a model for other public health interventions that require new techniques for food policy analysis and consumer behavior.
## Logic Model for the IDRC Funded Sodium Reduction Research Program (Grant 108167)

### Activities

<table>
<thead>
<tr>
<th>Objective 1A</th>
<th>Assess the sodium content of packaged foods and the proportion that meet sodium reduction targets. (Argentina, Brazil, Costa Rica, Paraguay and Peru)</th>
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</thead>
<tbody>
<tr>
<td>Objective 1B</td>
<td>Determine the sodium content of key artisanal, street &amp; fast foods by direct analysis. (Brazil, Costa Rica, Paraguay and Peru)</td>
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<tr>
<td>Objective 2</td>
<td>Identify consumer-related barriers and facilitators to discretionary salt reduction and develop a regional social marketing and communication strategy. (Brazil, Costa Rica, Paraguay and Peru)</td>
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<tr>
<td>Objective 3</td>
<td>Determine the health and economic benefits of population-wide sodium initiatives to inform sodium reduction policies. (Brazil, Costa Rica)</td>
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<tr>
<td>Objective 4</td>
<td>Disseminate research findings using a researcher developed and piloted knowledge translation (KT) strategy that is specific to each country and research objective. (Argentina, Brazil, Costa Rica, Paraguay and Peru)</td>
</tr>
<tr>
<td>Objective 5</td>
<td>Establish structures, processes and strategies for optimal project administration and Consortium partnership building, to ensure overall project success. (Core group)</td>
</tr>
</tbody>
</table>

### Process Indicators: Resources and Training

**Pilot study completed**
- FLUP app and database training conducted
- Protocol manual developed
- Agreements for data collection obtained

**Proficiency testing completed**
- Pilot study completed
- FLUP app and database training conducted
- Protocol manual developed
- Agreements for data collection obtained

**Data analyzed and results tabulated**
- Pilot study completed
- FLUP app and database training conducted
- Protocol manual developed
- Agreements for data collection obtained

**Ethics approvals obtained Data collected and analyzed**
- Pilot study completed
- FLUP app and database training conducted
- Protocol manual developed
- Agreements for data collection obtained

**Regional social marketing and communication plan established**
- Pilot study completed
- FLUP app and database training conducted
- Protocol manual developed
- Agreements for data collection obtained

**Training and workshops conducted**
- Pilot study completed
- FLUP app and database training conducted
- Protocol manual developed
- Agreements for data collection obtained

**Training on health impact and cost-effectiveness analysis conducted**
- Pilot study completed
- FLUP app and database training conducted
- Protocol manual developed
- Agreements for data collection obtained

**KT training and mentoring conducted**
- Pilot study completed
- FLUP app and database training conducted
- Protocol manual developed
- Agreements for data collection obtained

**The developed KT strategies implemented**
- Pilot study completed
- FLUP app and database training conducted
- Protocol manual developed
- Agreements for data collection obtained

**Monthly core group meetings conducted**
- Pilot study completed
- FLUP app and database training conducted
- Protocol manual developed
- Agreements for data collection obtained

**Annual meetings with all countries conducted**
- Pilot study completed
- FLUP app and database training conducted
- Protocol manual developed
- Agreements for data collection obtained

**Progress reports submitted to IRDC**
- Pilot study completed
- FLUP app and database training conducted
- Protocol manual developed
- Agreements for data collection obtained

### Short Term Research Outcomes

- Knowledge of the sodium content of packaged foods established and of the proportion of foods meeting the PAHO and/or national sodium targets
- Knowledge of the sodium content of street, artisanal and fast foods
- Knowledge of the barriers and facilitators to discretionary salt reduction. A regional social marketing and communication plan for discretionary salt reduction.
- Knowledge of the estimated health and economic benefits of sodium reduction programs
- Dissemination outputs and activities for optimal uptake and adoption in policy and practice.
- Successful project implementation and scale up of sodium reduction research to achieve of Short-Term Research and Consortium Outcomes

### Short Term Consortium Outcomes

- Resources, research methodologies and innovations created by and for the Consortium are scaled-up and adapted for the participating countries.
- Multi-sectoral and multi-disciplinary partnerships are newly formed and/or strengthened, engaged and activated.
- Partnerships and collaborations formed are equitable, diverse and inclusive.
- Confidence, capacity, and scientific abilities to conduct research to address public health nutrition issues in Latin American countries is increased.

### Intermediate Outcomes

- Country level sodium reduction targets established and/or updated.
- Commitments to monitoring sodium in food and diets.
- Commitments from the food industry to reduce sodium to target levels.
- Consumer sodium knowledge, attitudes and behaviours improved.
- National commitment to support and fund the implementation of a social marketing program.
- Resources, training and outputs by the researchers are leveraged to address other nutrition topics of public health concern.

### Long-term Outcome

- Sodium intake by population reaches goal set by the national sodium reduction program in each country.
- Reduce prevalence of cardiovascular disease in each country.
- Development of cost-effective approaches to reducing cardiovascular disease.

### Ultimate Outcome

- Reduced morbidity and mortality due to hypertension and cardiovascular disease in each country.

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**Post-project Outcomes**