



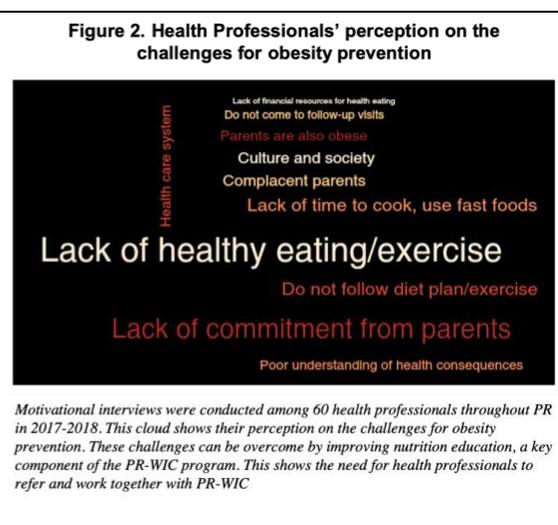
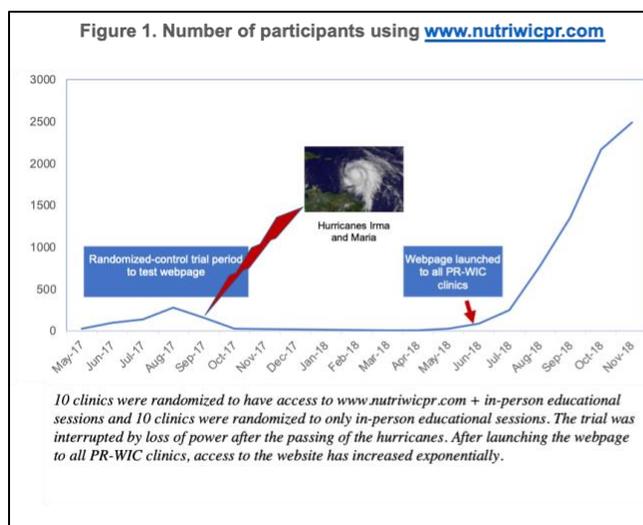
# INTERDISCIPLINARY RESEARCH LEADERS

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## Transforming the Puerto Rico Wic Program to Improve the Promotion of Healthy Lifestyles in Early Childhood

### WHY WE DID THIS STUDY

Childhood obesity is a growing problem with higher prevalence among Hispanics, particularly among Puerto Ricans, and among low-income families and participants of the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC).<sup>1,2</sup> A key element of WIC is to provide standardized nutrition education, which could help reduce these disparities. However, only 52% of PR-WIC participants were complying with the required nutritional educational contacts.<sup>3</sup> In a survey conducted by PR-WIC among 872 participants in 2015, it was found that 42% of participants reported challenges in attending these in-person sessions, even though this was a major motive for enrolling in WIC, and 37% suggested using technology to accomplish this.<sup>3</sup> Therefore, our main goal was to improve access to nutrition education on healthy lifestyles among children and their families in PR-WIC to prevent early childhood obesity. We achieved this by: 1) Assisting PR-WIC in the development and evaluation of an educational webpage [2016-17]; 2) Conducting motivational interviews among health professionals on their perception of PR-WIC and their role on childhood obesity prevention [2017-19]; 3) Disseminating PR-WIC services to bridge the gap on guidelines and resources for childhood obesity prevention [2017-19]; and 4) Strengthening public policy on childhood obesity prevention [2018-19].



To improve the delivery of WIC nutrition education in Puerto Rico, this study gathered information from program participants to design a new website and information portal for the Puerto Rico WIC program that gives participants direct access to the education courses online and other helpful resources. The platform which we developed, [www.nutriwicpr.com](http://www.nutriwicpr.com), has attracted more than 35,000 active users (refer to Figure 1). In addition to developing a theoretical framework and content for the platform, we took steps to evaluate its initial impacts, including whether users adopted recommended healthy lifestyle choices and whether these actions had any impact on early infant growth.

We also conducted interviews with health professionals involved in the care of women and children and identified efforts to increase their capacity to prevent and treat childhood obesity.

## WHAT WE FOUND

Our partnership provided the theoretical framework and multimedia resources for the development of [www.nutriwicpr.com](http://www.nutriwicpr.com). It was evaluated through a randomized trial in 10 WIC clinics compared to 10 control clinics with excellent satisfactory response, even under catastrophic conditions. It was launched to all 90 PR-WIC clinics in 2018. In June 2018, there were >23,000 active participants.

Health professionals lack knowledge/underestimate the role of PR-WIC on early obesity prevention. There is a growing need to continue disseminating guidelines and resources for childhood obesity prevention among health professionals and to strengthen related public policy.

## WHAT DO THESE FINDINGS MEAN

The development of [www.nutriwicpr.com](http://www.nutriwicpr.com) has allowed WIC participants to have access on a regular, consistent and accessible way to nutrition education. This in turn has improved the rate of completion of educational contacts in WIC, which is a requirement to keep the funding for such important food safety program. Also, our project helped align messages from health care providers with WIC messages so that participants receive the same messages to prevent childhood obesity. It also helped bridge the gap in knowledge about WIC services for preventing infant obesity and in re-defining policies to be consistent with these messages and with the culture of health for preventing childhood obesity. This work as a whole has the potential to create a culture of health by all stakeholders working together to promote healthy behaviors early in life for preventing life-long obesity.

**“To prevent obesity, the most important is to educate parents on how to feed their children.”**

—*Pediatrician, Mayagüez-PR*

## MORE ABOUT THIS STUDY

The WIC Program is the only food security service that is required to provide nutritional education. A total of 2 educational contacts are required every 6 months and this is a compliance measured evaluated by USDA. Based on the preliminary results from PR-WIC on low compliance to the educational contacts, lack of childcare and transportation to attend these and suggestions by participants to use technology for this, our project was geared towards helping the PR-WIC in the development of an accessible online/mobile learning platform to disseminate their nutritional messages. This website was expected to facilitate compliance with educational contact, increased participant retention beyond 24 months of age, and adoption of healthy behaviors. Increase uptake of healthy lifestyle behaviors were expected to result in improvements of early growth patterns and subsequent reduction in childhood obesity.

This collaborative effort was built upon an existent community-academic partnership and brought together stakeholders of the WIC community at different levels: participants, providers, officials and health care providers. This webpage was first pilot tested among a group of WIC participants and after improving the website, the 6-month randomized controlled trial was implemented. A total of 20 WIC clinics were either randomized to have access to the webpage to complete the

educational contacts (in addition to their standard in-person sessions) or to the standard in-person sessions. After only 3 months into the trial, our project was challenged by the passing of Hurricanes Irma and Maria in 2017, with loss of power in most of the island for many months. However, we were able to facilitate the process of recovery after the disaster and guide the broader implementation of [www.nutriwicpr.com](http://www.nutriwicpr.com) to all WIC clinics by June 2018. Active users have reported a high degree of satisfaction and ease of use of the platform and compliance with the educational contacts has improved.

Based on preliminary reports of conflicting information received by WIC participants from pediatric care providers, we conducted motivational interviews in >60 health professionals throughout PR in 2017-19. We learned that there is a lack of structured plans for prevention and care of childhood obesity and lack of knowledge about WIC services and efforts on this issue. This led to the dissemination of information about WIC services and updated prevention and treatment guidelines to promote a shared care approach for childhood obesity prevention and to strengthen public policy on this issue (refer to Figure 2).

## SOURCES

- <sup>1</sup> Food and Nutrition Service, U.S. Department of Agriculture (2013). WIC Participant and Program Characteristics 2012 (Vol. AG-3198-C-). Alexandria, VA: USDA.
- <sup>2</sup> Departamento de Salud, P. R. (2013). Factores asociados a sobrepeso y obesidad en niños de 2 a 5 años de edad participantes del Programa WIC, Puerto Rico, 2013. San Juan.
- <sup>3</sup> Campos, M; Palacios, C; and Reyes, A. Building strong partnerships with the Puerto Rico WIC Program for promoting healthy lifestyles in early childhood and a long-lasting culture of health. In: Community-Academic Partnerships for Early Childhood Health (Volume 1) (Interdisciplinary Community Engaged Research for Health). May 1, 2020. <https://ucincinnati.uc.edu/9781947602687/community-academic-partnerships-for-early-childhood-health/>

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