

Intellectus Grant Proposal:

Effects and nutritional impact of high priced and low-quality college lunch in post-graduate students at the Ponce Health Sciences University

Food is essential to produce the needed fuel to breathe, process information for cognitive functions, react to our environments, and produce all the byproducts, as part of the metabolic process in a daily basis. Food exportation, mainly dairy and preserved products, provides an extensive list of options, supplying the variety needed for our calorie intake. However, the consumption and demand of highly processed food have shifted the norms for the established dietary guidelines based on factors such as age, gender, height, weight, physical activity, and even acute or chronic diseases represented as genetic predispositions. In addition, unaffordable prices in healthier foods (*salads, fruits, vegetables, others*) lead young adults to go for less nutritional substitutions, increasing their consumption of preservatives in canned, frozen, prepacked, and fast foods. Meaning, an increase in high sodium content utilized by local companies and college cafeterias.

Before Hurricane Maria, earthquakes in the southern area and the COVID 19 pandemic, the estimated number of families that experienced food insecurity in the United States at some point in 2016 was approximately 15.6 million (12.3%) and around 6.1 million (4.9%) had exceptionally low food security; the prevalence of food insecurity in families with children was 8.0%; even though the Household Food Security report in the United States, in 2016, does not integrate information from Puerto Rico. Based on the number of people who have access to the Nutrition Assistance Program [approximately 30% of the population of Puerto Rico, including graduate students while in the United States a 14% of individuals (44.2 million) benefit from

the Supplemental Nutrition Assistance Program], in 2016, the average income of families in Puerto Rico \$18,810, compared to \$ 40,910 for families in Mississippi, which is a state with less family income (as compared to other states), and compared to \$ 56,277 in United States as a whole.

The main purpose of this study is to evaluate how low-quality high-priced foods affect academic performance in post-graduate students at the Ponce Health Sciences University. This will be intended to perform long-term administrative recommendations based on study findings. The pertinence of the topic relies on the facts of high incidence in Puerto Rico of obesity, diabetes, health-related problems, and respiratory chronic conditions among young adults from the 20-30 age range. On the other hand, regarding the high food prices including drinking water as their effects on the graduate student's community living in Puerto Rico, there is a lack of data. That leads us to ask: First, has there been a direct impact on graduate students' nutrition, and how severe has it been? Second, how do graduate students face the situation of high food prices? In conclusion, the central hypothesis of the proposed research is that after the hit of Hurricane Maria, earthquakes in the southern area and the COVID 19 pandemic, graduate students presented a state of nutritional risk. We understand that the proposed research project is significant because we will advance our knowledge regarding the characteristics of nutrition in the graduate students' population.