The Association Between Food Deserts and Different Causes of Death in Puerto Rico

Alejandro M. Ouslan

University of Puerto Rico, Mayaguez alejandro.ouslan@upr.edu

Julio C. Hernández

University of Puerto Rico, Mayaguez julio.hernandez3@upr.edu

May 14, 2025

Abstract

Puerto Rico is the U.S. jurisdiction with the highest rate of food insecurity. One of the factors contributing to this food insecurity is the lack of access that some communities have to food retail establishments. This study examines the effect of the density of food retail establishments (NAICS 44511) on the probability of dying from various chronic diseases. The results suggest that reductions in the number of establishments per square kilometer increase the likelihood of cancer (ICD-10 C00-C99), respiratory diseases (ICD-10 J00-C99), and circulatory diseases (ICD-10 I00-C99). A direct relationship was also found between food insecurity and these chronic illnesses.