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Global challenges: accessibility of supermarkets to senior centers in Jersey City using geomapping technology

Introduction

The NJ Hudson County Office on Aging has twenty-one senior congregate lunch sites in poor socio-economic urban areas. The agency, in conjunction with New Jersey City University (NJCU), has a grant which provides nutrition counseling, nutrition education, and fitness classes to 1,500 seniors a year. Approximately 36.7% of the 65 years and over population in Hudson County live below the poverty level (American Fact Finder, 2010). Seniors in Jersey City make up 9 percent of the population, 3.7 percent are males and 5.4 percent are females. Seniors account for 13% of the population in Jersey City. According to US Census (2010), Jersey City population was 247.597. It is the second largest city in New Jersey and ranks 17th in population density. There are 11,792.7 people per square mile. Jersey City population density is higher than the state (1,007.95 people per each square mile) and national averages (81.32 people per square mile).

This paper reviews the vulnerability of the senior population and the physical environmental challenges, travel obstacles, and community support to access supermarkets from senior centers to diverse food shopping in Jersey City. The GIS technology is used to map the blocks, distance, and strategies for travel. More than half of the participating seniors in the nutrition and fitness program report being vulnerable, frail, and having an income below $11,490. These factors affect mobility in the older population restricting their ability to walk, drive, or travel to supermarkets, and carry groceries in an environmentally safe community.

Dinah Carter, Lilliam Rosado
Sales at Sterling Commercial Credit, University of Georgia, USA

Correspondence: Dinah Carter, Vice President, Sales at Sterling Commercial Credit, University of Georgia, USA, Email: dinahcarter8@gmail.com

The GIS mapping was used as a tool to locate the distance and proximity of supermarkets to senior centers and discuss challenges to food accessibility, opportunities for travel, and community action needed to optimize nutritional options. A review of the literature shows how and when seniors are most likely to walk, drive, and use public transportation to enhance individual capacity. The focus groups at various senior sites will show that the built environment presents challenges by restricting walks in a high dense community, allowing seniors to access diverse food selection, shop during inclement weather, negotiating traffic lights and street crossings, and drive in traffic dense communities and use public transportation. The GIS mapping allows the service grant to access the distance of the senior centers to supermarket and advocate for various modes of transportation such as using senior housing vans, and simulating stress-free walks to nearby supermarkets in Jersey City (Figure 1).
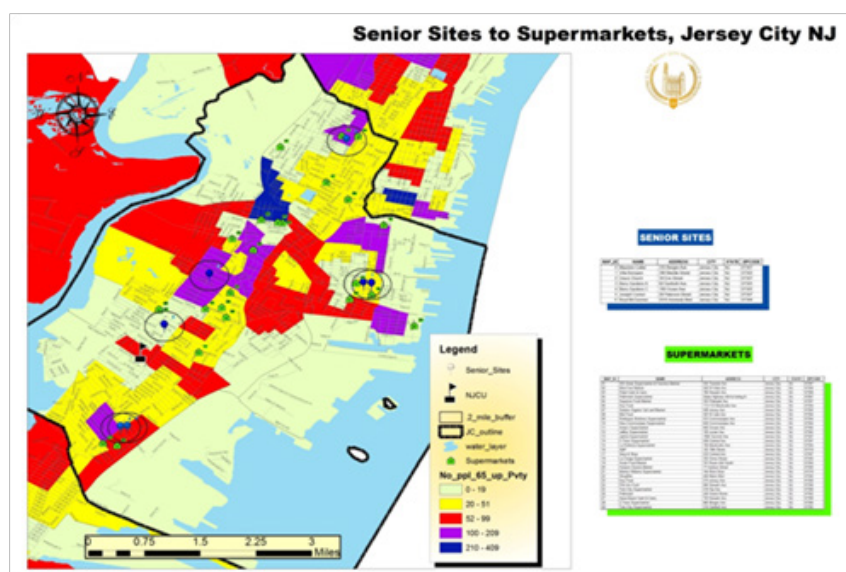

Figure 1 Jersey City Community Assets.

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None.

Conflict of interest

The author declares no conflict of interest.