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## **Prescription Drug Costs: Does Neighborhood Matter?**

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### **ABSTRACT**

The price of pharmaceuticals can impact one's ability to purchase needed medication(s). If one cannot afford necessary prescriptions the resulting medication noncompliance can lead to further health complications, increasing the risk of disability, disease progression, and mortality (Mojtabai & Olfson, 2003; Sherbourne, Hays, Ordway, DiMatteo, & Kravitz, 2010).

In this research study we aim to answer two questions: (1) Is there a relationship between neighborhood characteristics (population size, race/ethnic composition, median income, and crime) and access to pharmacies?; and (2) Is there a relationship between neighborhood characteristics and pharmaceutical prices? Using 2009-2013 American Community Survey Data, Census block group data was used to identify geographic areas within the City of Flint, Michigan with similar population sizes.

Based upon the block group data, the city was then divided into 4 general areas. Among these 4 areas (NE, NW, SE, & SW), a total of eight block groups, 2 block groups per area, were selected. A 1 mile radius of each block group was used when identifying pharmacies. Identified pharmacies were telephoned and asked the out of pocket costs for a 1-month and 90-day supply of four commonly prescribed diabetes medications: Glipizide 5mg, Metformin 500mg, U-100 Humulin N and U-100 Novolin N.

This research study will allow us to gain important knowledge about local community health resources and the relationships between neighborhood characteristics, pharmacy access, and variability among diabetes prescription drug costs. This information can also be used to inform patients about the benefits of comparison shopping for needed prescriptions.

**Keywords:** Diabetes, Prescriptions, Health Disparities

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