

Cleveland Health Survey Data Collection, Interpretation, Analysis, and Mapping

Austin Van de Ven, MPH Candidate at CWRU
Stephanie Pike Moore, PhD, MPH Practicum Preceptor
Prevention Research Center for Healthy Neighborhoods



Master of Public Health Program

Background

The Prevention Research Center for Healthy Neighborhoods (PRCHN), located at 1974 E 66th Street, Suite 300, Cleveland, OH 44103, is a community-focused public health research center within Case Western Reserve University. The PRCHN partners with neighborhoods, community organizations, and the Cleveland Department of Public Health to study health challenges and address structural barriers. Its work emphasizes collaboration, equitable research practices, and strong community relationships. This practicum was completed through the Cleveland Health Survey, a PRCHN–CDPH collaboration designed to measure neighborhood-level health behaviors and access to care.



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Results

Correlation analysis showed limited relationships among the four healthcare utilization measures. Doctor and eye visit prevalence had the strongest association ($r = 0.54$). Other relationships were weak, including a small positive correlation between eye and dental visits and a small negative correlation between mental health and doctor visits. Neighborhood maps revealed clear variation in utilization across Cleveland but no single pattern that aligned consistently with historic HOLC grades. Some areas with past "C" or "D" ratings showed relatively high utilization, while others remained below city averages.

Pearson Coefficient	Doctor	Eye	Dental	Mental
Doctor		1 0.535616	-0.113506	-0.26702
Eye	0.535616		1 0.32596	0.134573
Dental	-0.11351	0.32596		1 0.023912
Mental	-0.26702	0.134573	0.023912	

Learning Objectives

Develop proficiency in ArcGIS Pro to manage, analyze, and map Cleveland Health Survey data. Analyze neighborhood-level patterns in healthcare utilization and relationships among four types of care. Compare present-day healthcare utilization with historic redlining boundaries and interpret public health implications.

Deliverables

Created a set of GIS-based maps illustrating neighborhood-level healthcare utilization across Cleveland. Produced an analysis comparing these patterns with historic redlining to highlight spatial disparities.

Activities

During the first phase of the practicum, I conducted telephone administrations of the Cleveland Health Survey, assisting participants who called in to complete the survey and following up with individuals who had expressed interest in participating. I documented responses, ensured data accuracy, and supported efforts to increase survey completion. After the survey period, I received training in ArcGIS Pro and applied these skills to manage, clean, and analyze neighborhood-level health data. I created multiple thematic maps displaying healthcare utilization measures across Cleveland's Statistical Planning Areas. These maps were used to compare current health access patterns with historic redlining boundaries.

