

The Correlation Between Zip Codes and Health

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This research proposal focuses on public health and economics. It focuses on how the zip code you reside in affects your health. Studies have shown that the correlation between zip codes and health may be stronger than the correlation between genetic codes and health. Many of the reasons zip codes affect your health are economic. This research aims to address the economic reasons and explore the disparities in life expectancy between areas with higher socioeconomic levels and lower socioeconomic levels. In places like Chicago there are life expectancies with up to 30 years in between them (Ducharme and Wolfson, 2019). Socioeconomic variables such as medical, education levels, and demographic will be utilized. This project will test the significance of zip codes and health within different communities specifically focusing on Los Angeles County and its zip codes.

Introduction:

President Obama said, “In this country, of all countries, a person’s zip code shouldn’t decide their destiny (Obama, 2015).” Where you live has a significant impact on your overall health and life expectancy. The nature of our communities can influence our health. Variables such as housing prices, income, and education level all impact communities. Cities like Chicago have a large gap in life expectancy since it is segregated by race and ethnicity. Predominantly white neighborhoods are safer and have better access to health care resources while predominantly minority neighborhoods face barriers such as poverty, unemployment, and worse health care (Ducharme and Wolfson, 2019). The goal is to point out these disparities and their significance through research, so in turn public health officials, lawmakers, and community representatives can begin to fight for equal access to recourses. Can stakeholders make adjustments so that zip code no longer has an effect on future health? Using the ZIP code scale, how do different socioeconomic variables show disparity in health in LA County?

Related Work and Motivation:

This proposal is based on previous work by John W. Seavey at the University of New Hampshire. In 2008, he published “How’s your health? What’s your zip code? Poverty and health” where he links the social system and health. He focuses on cities such as Washington D.C. and New York and the variation between the life expectancy of Whites and Black just mere miles apart. He says that as socioeconomic status improves, health improves. His paper focuses on the relationship between income and health and the call to action for policy makers. His main

claim throughout is those who are poor have poor health. He lists many reasons such as access to health insurance in the United States and low education levels. The link between health and poverty has been established but what is missing is a course of action. The country does not discuss what to do about this situation. He asks, “To what extent should the fact that a baby was born to a family in zip code 20001 rather than in 20847 determine the health of that person or the length of that person’s life?” (Seavey, 2008). He finishes his paper with many more questions to encourage thinking and change.

Another piece of work that led to my proposal was “Disparities in obesity rates: analysis by ZIP code are” by Adam Drewnowski. His work focused on obesity rates in King County, Washington State, at the ZIP code scale. He found that as housing prices increased, obesity rates decreased. This piece of work interested me because obesity relates to health and housing prices are a socioeconomic variable that showed significance in this correlation (Drewnowski, 2007).

President Obama also addressed how to make our communities stronger through fair housing during a weekly address in 2015. This shows that this research is important from a political standpoint as well. In this address, July 11, 2015, the President discussed a new rule announced by his Administration earlier in the week to make it easier for communities to implement the Fair Housing Act. The Fair Housing Act protects people from discrimination in the home owning or renting process. It makes it illegal to harass people because of race, color, national origin, religion, sex, familial status or disability. Most housing is covered by this act. The Administration announced new steps to provide communities with tools to ensure that housing is fair, and that no American’s destiny is determined by a zip code.

Another source of media that highlighted the importance of different zip codes is a YouTube video by *HealthHappensHere* named “A Tale of Two ZIP Codes”. In a figurative example, the YouTube video explains how your zip code is more important than your genetic code. It compares two people from two different zip codes. It highlights how opportunities are important and certain opportunities are only afforded to those in certain zip codes. Some factors in better zip codes are clean air, good schools, access to good care. This video aims to educate the general public. This video can be used to describe the problem from a social perspective rather than a research one. It highlights California and the research is supposed to take place in California; therefore, the research can be compared to this video.

Methods:

The previous research has inspired this research through Seavey linking socioeconomic status and health as this proposal aims to explore that relationship. Drewnowski also links obesity and calls it an economic problem. The address from President Obama shows the importance of this work as it affects every citizen. The background research can guide this proposal as it aims to focus on Los Angeles and certain variables.

This research proposal will answer the question Using the ZIP code scale, how do different socioeconomic variables show disparity in health in Los Angeles County? The goal of this research is to find significance amongst the variables displaying how zip codes do affect health. In turn, the research is meant to urge lawmakers to find solutions in the disparities relating to ZIP codes and economic statuses. The goal is also to urge Los Angeles community representatives to fight for change in communities so the zip code you live in does not have a hold of your health or life expectancy. Where you are born or where you live should not be the

deciding factor in your health or life expectancy. The project will utilize data from the Health Data Resource Inventory from the County of Los Angeles Public Health. The different indicators will be health insurance, access to regular source of care, demographic (income), education, and health behaviors (physical activity and overweight). By using an existing data set, the data will be collected and analyzed in respect to each variable. Utilizing the program Stata, regressions will be run to see if there is a correlation between zip codes and health. Maps will also be analyzed by zip code. The health inventory website has already collected the data. The dataset summarizes the source, the ss, sum of squares, the df, degrees of freedom associated with the sources of variance, the ms, mean squares, the r, r-squared, and adjusted r-squared. All of these will provide answers into the correlation between each of the variables and health. Then the data will be summarized and sent out to law makers and community representatives.

Expected Results:

The expected results are that the variables access to medical care (health insurance), access to medical care (regular source of care), demographic (economic), education (education), and health behaviors (physical activity and overweight) will show that there is a correlation between zip codes and health. Health insurance and regular source of care will show the correlation from a medical standpoint. It is expected that there will be a strong correlation. Demographic and education will provide results from a socioeconomic standpoint. It is expected that there will be a strong relationship between zip codes with higher incomes and better health. Health behaviors will provide the most direct answers because the results will show the types of people there are in each zip code and that can be compared with the demographics and housing

prices. Stata will also compile the data and organize it. Each variable will be compared. The goal of this work is to show lawmakers and community members that there is disparity and zip codes should not determine your health or life expectancy.

Conclusion:

In conclusion, the goal of this research proposal is to see if there is a correlation between ZIP Codes and health. All the data collected will be from the Los Angeles health inventory and the website used to run the regressions and find similarities and patterns will be Stata. The goal of this research is to show that there is disparity based on ZIP Code. In the United States of America, ZIP Codes may be a better predictor of your health than genetic codes. However, where you are born or where you live should not be the deciding factor in your health or life expectancy.

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