

## Abstract

Medication nonadherence is generally defined as a patient's inability to take their medications correctly as prescribed by their doctors. Medication nonadherence adversely affects patient outcomes and increases healthcare costs. Prior research found that health system-, condition-, patient- (older age is one factor), therapy- and social/economic-related factors have been identified to show effect on non-adherence.

Our goal is to analyze the NHIS data to understand the sociodemographic and health causes of medication nonadherence, as well as answer the following questions about our selected topic.

## Introduction

In United States history, there has only been one period of time where the USA has provided affordable healthcare mandated by the government. If we analyzed all of American history, we would find the results to be a landslide. This is because the mass of the people affected by medication non-adherence would be heavily affected by the cost of medication without healthcare. This is the reasoning why we chose to analyze the years between 2013 to 2016. This is the time period where the affordable healthcare act was being implemented around the USA, thus providing healthcare for all citizens of the United States.

This will allow us to analyze other factors that are not conflicting and gives us a chance to discover the strength of factors such as cost and education when provided proper support to avoid medication non-adherence. This will give us a better grasp of the factors of medication non-adherence without being dwindled due to the lack of infrastructure to support medication adherence.

## Research Question(s)

- What variables are the most relevant drivers of nonadherence?
- Does the direction and strength of the associations between these variables and medication nonadherence vary over time? If so, how?
- Are trends getting better or worse?
- Do the results of your analysis suggest that social inequality factors may be linked to medication nonadherence? If so, how?
- What are the implications of your analysis for various stakeholders? How does this vary depending on whether medication nonadherence is intentional or unintentional?

## Materials and Methods

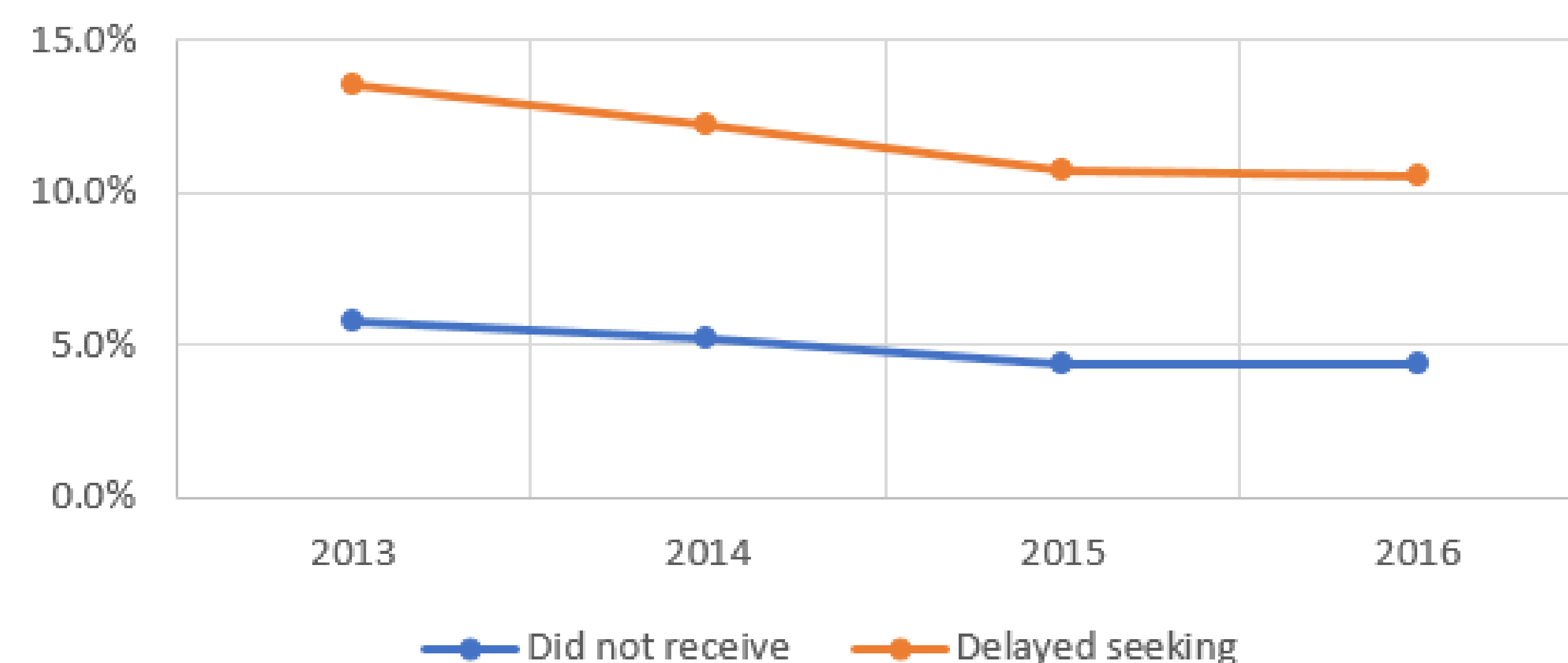
This capstone requires us to real-world data such as the National Health Interview Survey (NHIS) to examine sociodemographic and health-related predictors of medication nonadherence. The objective of this project is to thoroughly examine a large selection of databases and compile all of our findings into one final research paper. In order to compile our data findings, we will be using data collection software (such as Microsoft Excel) to compile all of our results so we may analyze our collected data much more efficiently. Each group member will have their own selected parts of the project, and at the end of the project, all documents will be compiled into one of each file type.

The main purpose of this project is to collect data on medication nonadherence, and write up a report explaining specific non-adherence factors and information. These forms of information include non-adherence drivers, trends, social inequality factors, and implications for stakeholders.

## Results

We have determined medication nonadherence from 2013-2016 is a reducing. We gathered this information by taking the information from the NIHS and CDC database, and then making percentage calculations by comparing the years. This has given us the best comparison to understand the differences and main drivers of medication non-adherence between the years.

Percentages of People Who Did Not Recieve or Delayed Seeking Medical Care from 2013-2016 in the United States



## Conclusions

During the course of this project, we collected data on medication nonadherence, and wrote up a report explaining specific non-adherence factors and information. These forms of information include non-adherence drivers, trends, social inequality factors, and implications for stakeholders.

## Acknowledgments

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