

Project Proposal

Medicaid Prescriptions and Drug Manufacturer Payments

The Problem

The problem that I want to solve, or rather the question I want to ask is, do payments made to doctors by drug manufacturers influence the rates at which their drugs are prescribed?

The Client

The client in this case could be from two organizations. The U.S. Department of Health and Human services, or a news organization. Both of these organizations would be interested in knowing the answer to this question, though the news organization for less benevolent motives. A news organization may be more interested if the answer is no, as it may draw more attention. However, the Department of Health and Human services would like to know this answer so it can better server United States citizens and advance their health and well-being.

If it is the case that the payments drug manufacturers make to physicians significantly influence the rates at which those drugs are prescribed, this could mean poorer treatment outcomes, and larger medical expenses for patients. In this case, the HHS may want to put through legislation that prohibits such payments by drug manufacturers in order to benefit United States citizens.

A news organization would want to report these findings to make their readers aware that their doctor's could be prescribing them drugs they otherwise would not have, had they not received the payments from drug manufacturers.

The Data

I will be using data from the Center for Medicare and Medicaid Services detailing what prescriptions physicians prescribed and in what quantities billed to Medicaid Part D, as well as data from the same organization on payments made to doctors from drug manufacturers. Both datasets cover all of 2013 and 2014 and is publicly available. The FDA also has information on drug labels which all list the prescription and its manufacturer.

The Outline

At this point, I think I will solve this by first finding a subset of doctors who have received payments according to the payments dataset and also who have prescribed drugs to patients covered by

Medicaid Part D. Once I have this subset, I will find doctors who are in the same geographic region who received significantly different levels of payment from specific drug manufacturers. I will choose doctors in the same region to control for the differences in their patient populations. Then I will perform appropriate statistical significance tests to see if payments from a particular drug manufacturer influenced that drug manufacturers drug prescription rates.

The Deliverables

For this project my deliverables are: the code used to find these answers, a summary paper detailing my findings, and a slide deck that communicates the story I'm trying to tell.