Summary of Dunn, Liebman, Fernando

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Broad Question:

Broadly speaking, this paper seeks to understand how price increases of drugs resulting from R&D corresponds to consumer welfare. Basically, does consumer welfare increase despite the price increases, or does the innovation in the drug not necessitate the price increase?

Specific Question:

Specifically, the authors primarily look into rheumatoid arthritic and hepatitis c drugs, and seek to ascertain how the innovations in these drugs have impacted consumer welfare. They examine other disease therapies, but the primary study focuses on the two mentioned. They create models of consumer welfare via quality adjusted life years and value of statistical life years, and are able to uncover the relationship between drug innovation and consumer welfare.

Policy Maker's Interest:

A policy maker would have many reasons to be interested in a project like this. Firstly, they would have tangible evidence of pricing effects given quality, thus influencing any sort of price floor or ceiling policy. Then, there is the idea of federal research funding for pharmaceuticals. This sort of study and model would allow for a quantifiable measure of when a drug/therapy is worth investing in as the government versus which may be less able to markedly improve consumer welfare.

Economist's Interest:

An economist would be interested for the novel addition of innovation to consumer welfare and pricing index models, as well as the clever data sources used. Further, an economist should always be interested in consumer welfare in an industry such as health, allowing for extension into willingness to pay and other sorts of demand estimation.

What We Learn About Economics:

We learn a lot from this paper. Firstly, we find that hepatitis C innovation has increased consumer welfare via QALY despite massive cost increases. Secondly, we find that rheumatoid arthritis therapies saw prices rise faster than quality was able to. Lastly, we find interesting methods of modeling how consumer welfare responds to innovation, which could be extended to many different industries.

How Does Empirical Answer the Question:

The empirical strategy directly answers the question by estimating the quality adjusted life years as a function of fixed effects resulting from new and existing treatments. The authors also estimate value of statistical life years, a measure of how much monetary worth an agent prescribes to an additional year or life.

Main Identification Threats and Overcoming:

The main threats to identification come from not observing the fixed effects which comprise QALY or not observing costs.

The identification was overcome by using multiple data sources and focusing on a small subset of conditions to focus on drugs for. Doing this allowed for convincing estimation as well as meaningful results. This seemed an easy fix, given how comprehensive the data used was described to be.