

Data Resource

1. Background

In our daily life, people are always looking forward to getting the lowest price of some specific drugs. There are approximately 67,000 pharmacies in the United States. Almost half (33,000) are located within drug stores, grocery stores, hospitals, department stores, medical clinics, surgery clinics, universities, nursing homes, prisons, and other facilities.^[1] Some of them have online store that can help our patients to get the price and buy the drug online. So it is a high demand that there should be a website or app that can help people utilize the online resource and compare the prices. Meanwhile, policymakers and researchers frequently compare the prices of medicines between countries. Such comparisons often serve as barometers of how pricing and reimbursement policies are performing^[2]. It is necessary to have an app or website that can provide the comparison of the price of drugs across different drug stores.

2. What kind of data is needed for our app

For our app, it need to be supported by both the original price and the coupon for one specific drug. Moreover, dosage, form and quantity are also needed because it will affect the price of drug. In some store, if you bought the drug as a bundle, it will give you an extra discount. So the data that we need is a comprehensive dataset that can provide all of the information above to give us the effective lowest price considering all the situation.

3.The resource of original drug price and coupon

We have searched for 4 largest online pharmacy of United States, CVS Pharmacy, Walmart, Walgreens and Goodrx. Except for CVS, all the others provide API that can connect to part of their data. However, what we want seems to be a secret to the drug sellers. They only provide, for example, the coupon API (Walgreens) or Pharmacy prescription API (Walgreens). Goodrx only coporates with large business company and gave no response to our requirement. Walmart has a relatively good API for the drug price, but only for original price (it comes directly from the API that we can put the item into the cart). However, we cannot only use one drug store to compare the price. So it is a pretty hard way to get both coupon and the drug price from all the drug stores. There is a website, named Pokitdok platform. It can give us some drug price API with charge of some money. After communicating with our mentor, we thought that it is a good API-providing website. But as it cannot give us a free service and if we need the full service of Pokitdok, it is not cheap and beyond our ability. So we decide to use arbitrary data to support the function of our website first. From that perspective, we can see that the dataset resource for this kind of website is a pretty important part that we cannot ignore.

Reference

1. U.S. Drug Store/Pharmacy Market - Statistics & Facts.
2. Olivier J. Wouters and Panos G. Kanavos A comparison of generic drug prices in seven European countries: a methodological analysis: BMC Health Serv Res. 2017; 17: 242.