

### Sorensen 2000 : Equilibrium Price Dispersion in Retail Market for Prescription Drugs

This research is conducted in order to explain about the price dispersion mechanism within the pharmaceutical industry. The central finding of this study is that observed price distributions are consistent with the predictions of models based on consumer search. The contribution of the costly consumer search by examining retail prices for prescription drugs and the imperfect information are also lead to the price dispersion of the prescription drugs. This paper also emphasizes that consumers' increased propensities to price-shop for repeatedly purchased prescriptions will constrain the prices of such prescription to be lower and less dispersed. The data collected in this paper were from the posters of 20 pharmacies in Middletown and Newburgh, New York in March 1998.

#### Equation explanation

$$\begin{aligned} \text{RANGE}_{ij} = & \beta_0 + \beta_1 \text{PFREQ}_i + \beta_2 \text{AWP}_i + \beta_3 \text{BR1}_i + \beta_4 \text{BR2}_i \\ & + \beta_5 \text{NEWB}_i + \sum_{k=6}^{25} \beta_k D_{ik} + \epsilon_{ij}. \end{aligned} \quad (1)$$

According to the equation above, the price range across pharmacies in town j (RANGE<sub>ij</sub>) is the dependent variable. PFREQ is a variable which stands for purchase frequency. AWP is the average wholesale price which was included to control for the impact of price levels on dispersion. The terms BR1 and BR2 are dummies variable for two kinds of brand-name drugs those that face competition from generic equivalents and those that do not. NEWB is a dummy variable for Newburgh and D is the indicator for 20 categories of drug therapy. The column 1 of table 2 in the paper report the regression result which was estimated by using the GLS. The result shows that the price range of the the drugs that must be purchased monthly will be smaller than the one-time purchased. The column 2 of table 2 shows the coefficient from a regression on the standard deviation which the monthly purchases drugs are 20 percent less relative dispersion than the one-time purchases. The coefficients on the brand dummies also pointed out that prices are more dispersed for generics than the branded drugs. Moreover, from the estimation the price is less dispersed in Newburgh than the city of Middletown even though both cities shared similar characteristics.