A big factor in prescription drug pricing: Location, location, location.

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PRESCRIPTION drugs have become politicized. Al Gore recently criticized the manufacturer of the arthritis drug Lodine for selling it for $108 a month when prescribed for humans and $38 when prescribed for dogs. It's not just the doggy divide that has politicians upset; international price differences for drugs are another flash point. The House and Senate recently approved a measure allowing pharmacists to import prescription drugs from countries where they sell for substantially less than in the United States.

Charging different prices for humans and animals, or different prices to consumers in different countries, is what economists call "third-degree price discrimination." It is a common practice for pharmaceutical companies. A month's supply of the antidepressant Zoloft sells for $29.74 in Austria, $32.91 in Luxembourg, $40.97 in Mexico and $64.67 in the United States.

This kind of differential pricing is motivated in part by drug companies' cost structure and in part by differences in bargaining power. It can cost millions of dollars to research, develop, test and market a new drug. Once these fixed costs are incurred, however, actually producing the drug may cost very little. Since the market price is often far greater than the marginal cost of production, there is always a temptation to cut prices to generate incremental sales and profit. The problem is that cutting prices across the board tends to reduce revenue.

The natural strategy is to selectively cut prices and set different prices for different markets. Drugs sold for humans generally sell for more than drugs sold for animals. Drugs in rich countries tend to cost more than drugs in poor countries. A daily dose of the AIDS drug PLC sells for $18 in the United States and $9 in Uganda, while a generic equivalent sells for $1.50 a day in Brazil. Even at $9 a dose, the drug company makes a profit on incremental sales. But if the drug were sold at $9 to everyone, profits would be substantially lower than they would be under differential pricing.

The United States ends up paying more for drugs since it is much richer than the rest of the world and tends to spend a large fraction of that wealth on health care. Furthermore, in most countries, a single governmental health care provider bargains over drug prices. America's health care system is much more fragmented, which tends to reduce the bargaining power of health care providers in negotiating drug prices.

Price discrimination is not popular with consumers, especially those paying the higher price. What does economics say about whether this kind of differential pricing is good or bad? To answer this question, we have to ask what price would prevail if only one price could be charged.

Imagine that there are only two countries involved, the United States and Uganda, and PLC sells for $18 here and $9 in Uganda. If the drug company had to charge the same price in each country, what would it be? In this case, it is likely that the price would be closer to $18 than to $9. True, sales would drop significantly in Uganda, but that loss in revenue would be very small compared with the revenue loss in the United States from setting a price close to $9 because it is a significantly larger market. In this case, mandating a fixed price makes the Ugandans a lot worse off and does little for American consumers.

But it could work out differently. Imagine an antimalarial drug that lots of people in Uganda might buy at $2 a dose and a few people in America might buy at $10 a dose. If the Ugandan market is more than five times the American market, the drug company, if it could set only one price, would make more revenue by setting that price at $2. If the manufacturing cost of the drug is small enough, this would also be the more profitable price.

The critical question, from the viewpoint of economics, is whether differential pricing or a flat price leads to more people getting the drug. In the case of the AIDS drug, differential pricing leads to more total consumption; in the case of the antimalarial drug, it is the other way around.

When two different prices are charged, people paying the higher one are convinced that if the company were forced to charge one price, it would be the low one. Alas, it's not always so. Sometimes forcing one price results in just cutting off the small market, rather than lowering the price to the large market.

In fact, public health advocates have argued for a long time that pharmaceutical companies have little incentive to invest in developing drugs for tropical diseases, since they tend to be a problem only in poor countries, where people can't afford to pay for drugs anyway.

All the money is in the rich countries, and drug research focuses on health problems of interest to those markets, like obesity, heart disease and cancer, virtually ignoring diseases that strike the residents of poor countries.

From the economic viewpoint, this behavior is entirely understandable: that is the way the incentives are set up. If you want to change the drug companies' behavior, you have to change their incentives. The World Health Organization has advocated offering monetary prizes for companies that develop effective drugs for tropical diseases, as long as they subsequently sell the manufactured drug at marginal cost.

There is no easy answer as to whether price discrimination, in general, is a good thing or a bad thing. It tends to raise additional revenue that can be plowed back into research and development, which creates better incentives to invest in drug development. When it allows markets to be served that would otherwise be ignored, price discrimination will tend to be socially useful. But if differential pricing is just an excuse to raise prices that would otherwise be low, it doesn't have much to recommend it.