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Economic Commentary

Freakonomics and the Opioid Crisis

In April 2005, award winning economist Steven Levitt and Wall Street Journal reporter Stephen Dubner made quite a splash in academic circles with the publication of their jointly authored book, “Freakonomics.” They were very early users of data to spot anomalies in areas outside traditional economics, and then applying common sense to understand the cause of the aberrant results. In the initial chapter of the book, the authors describe how they detected and then proved cheating by a teacher who altered answers on standardized tests taken by Chicago public school students.

The authors utilized a bedrock principle of economics in their work, namely that individuals and entities engage in “rational utility maximization.” In other words, people will act in ways that they believe are in their best interests. Hence, a Chicago teacher altered test book answers to improve the scores of her students, thus qualifying her for a bonus. Presumably, she also thought the likelihood of being caught was minuscule.

This one example should make regulators and legislators cautious about policies they pursue to respond to needs within the United States populace. In the area of pain management the cumulative effect of many decisions made by various participants resulted in the current tragedy of 150 deaths per day from opioid overdoses.

Pain management is a relatively new area in health science. Initially, pharmaceutical companies developed extremely powerful drugs designed to ameliorate the excruciating pain experienced by individuals with end-of-life cancers. No one opposes that treatment regimen for those so afflicted. A number of prescription opioids were initially approved with the indication that it was only approved for that segment of the population.

It is typical for drug companies, after receiving an initial approval for a drug, to seek to expand the uses for which it was approved. In this case the drug companies sought to have opioid drugs approved for chronic pain. This is an example of corporate greed overriding the prospect that these drugs could become addictive and eventually life threatening through misuse. After securing the new indication of opioids for chronic pain, the companies promoted its benefits and claimed there was no proof the drugs were highly addictive. The Food and Drug Administration approved this indication and thus became an enabler at that point.

However, subsequent events have shown that the claim opioids are not addictive, is roughly equivalent to tobacco companies claiming cigarette smoking is not addictive and does not lead to lung cancer.

When Medicaid eligibility was opened up to individuals with incomes up to 140% of the poverty line (roughly $35,000 per year for a family of four), an interesting unintended consequence followed. These newly eligible individuals were basically in lower paying jobs that made it difficult for them to make ends meet. However under Medicaid, these individuals could now see their doctor and claim they had debilitating chronic lower back pain. They could then get a prescription for ten opioid pills at $1 per pill. The “street value” of these pills is in excess of $100 apiece. In essence, some of these individuals became entrepreneurs, obtaining the pills for $1 apiece, reselling them for approximately $100 apiece, and pocketing the difference.

The spike in opioid abuse since 2011 is highly correlated to the expansion of Medicaid eligibility and the resulting lower cost of prescriptions. While correlation does not prove causation, it is curious that Health & Human Services never expressed concern that their policy of providing cheap opioid pills to low income individuals could be abused.

Physicians also play a role in fostering this current epidemic. In 2015 there were enough prescriptions written for opioids to provide every adult in the United States with a 30 day supply. The Attorney General of Arizona is currently suing three doctors for overprescribing opioids from a single drug company, after that company paid each doctor a $200,000 "speaking fee." The lawsuit alleges that 60% of the prescriptions written for this opioid in the State of Arizona originated from these three physicians.

Naturally, the governmental reaction at all levels within the United States is more regulation and greater restrictions on prescription writing. However, it appears that once people have been treated with opioids, the desire to continue receiving the treatment is very strong among at least part of the population. When their ability to receive legal prescription opioids ends, many turn to illegal suppliers, namely drug cartels. The end result is the tragically high number of overdose deaths reported daily throughout the country.

Numerous lawsuits have been initiated to seek to place blame on various parties in this crisis. Even if the FDA were to return these pain management drugs for limited use only by dying patients, it would take years before declining deaths from overdoses occurs, due to the number of people already addicted.

Freakonomics as a social science operates on data that is necessarily backward looking. However, it should be possible to utilize some foresight before data are collected, starting with the premise that all the groups involved in this tragedy operated on the basis of doing what they believed was in their best interest. Someone, in this case I believe the pharmaceutical companies, should have thought through the implications of pursuing additional indications for such a powerful set of drugs. It would certainly have ameliorated the extent of the crisis we now face.

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