## An Economic Analysis of HB 18-1179

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House Bill 18-1179 addresses price gouging in the market for off-patent or generic drugs. The bill prevents pharmaceutical companies from engaging in the practice of price gouging select drugs above specified limits, while categorizing price gouging as a deceptive trade practice under the Colorado Consumer Protection Act. This bill also establishes that the state board of pharmacy and the director of the department of health care policy and financing must report any such suspicions of price gouging to the attorney general, where the attorney general will file appropriate subpoenas and lawsuits if necessary.

This bill is an understandable response to counter poor practices by large pharmaceutical suppliers. Price hikes have occurred several times in recent years by large pharmaceutical companies, including necessary medicines such as epinephrine. Unfortunately, HB 18-1179 will likely fall short in its attempt to rectify these problems. While these price hikes are concerning for consumers, the market appears to be the solution to their problems rather than legislation. Readily available substitutes to these medicines are well documented by the World Health Organization (WHO). Additionally, several attempts made by the federal government and the Food and Drug Administration (FDA) have opened up off-patented drugs formulas to the public so that companies can create cheaper drugs in reaction to the price hikes. Since the pharmaceutical market is very competitive, companies that participate in egregious price hikes will suffer with no market power. These considerations have made the ideas in HB 18-1179 obsolete, as the free market has been able to correct for these issues without legislation.

Implementing HB 18-1179 will overwrite rules and processes that the free market will follow naturally.

Government should only interfere with a market when a market fails the public in some way. The market can naturally adapt to any extreme price changes by any one company. Only in the cases of monopoly or oligopoly (2 or more firms with significant market power) can the market price of a given good be heavily influenced, and due to the competitive market we see in the pharmaceutical industry, no such control exists.

Structurally, the pharmaceutical industry in the US is competitive. Only with patented medicines, where the idea and invention are protected, can any company have pure control over the market price (Danzon, 2006). In the US, Johnson and Johnson, Pfizer and Merck & Co. are the top three drug producers based on revenue, making just under \$165 billion of revenue in 2017 (Statista, 2017). However, the next six companies combined made just over that figure at \$167 billion, showing that while there are a few bigger companies in the market, none have a true stranglehold on the prices alone. HB 18-1179 refers to a redistribution of customers' funds from the companies to the customers' own pockets. This correction is important, but as this paper will explain, the market will correct for this problem without a need for government intervention.

Price gouging, as defined in HB 18-1179, is the increase of the wholesale acquisition price of an off-patent drug by 50% over a year's period, excluding increases due to increased costs from the manufacturer. It also includes that the attorney general will be notified if the wholesale acquisition price exceeds \$80 for a 30 day supply, or for the full regiment of the treatment in the same year long period.

Off-patent drugs are drugs that have formulas unrestricted by patent, and are available to the public; generic versions of these drugs can typically be found for lower prices than the named brand. Generic and named brands of the same drug are considered substitutes; as the price of one goes up, given that there are no innate differences between the given drug, demand will rise for the other drug. Examples of these can be seen in simpler drugs, as name brands of pain medication such as Advil and Tylenol (ibuprofen and acetaminophen, respectively) are available in stores at lower prices in their generic form. HB 18-1179 attempts to accomplish this by taking market power away from these companies, rather than letting the market act on its own.

95% of the 410 drugs listed in the WHO's most recent report of 'essential' drugs are offpatent, meaning that any number of companies can replicate them after receiving the go ahead from the FDA (Brachmann, Quinn 2016). The essential drugs defined in HB-1179 are almost completely available to any company to make.

These generic, off-patent forms are readily available with a simple google search to find their formulas online. With this information that is unprotected by any patent, a company can enter the market without dedicating time and resources to developing new drugs. This is where natural competition occurs in the market, as any pharmaceutical company can take advantage of another company's high prices for a publicly available drug and produce their own to sell at a lower margin to try and make a profit.

If a pharmaceutical company were to engage in extensive price hikes, demand would rise for another version of the drug. If no such alternative exists, firms will enter the market to make this product. An example of this substitution occurred in 2015: Turing Pharmaceuticals raised the priced of Daraprim, a drug used to treat symptoms of HIV, from \$13.50 a pill to \$750 a pill (Johnson, 2015). A San Diego startup company later that year produced the same drug for a mere \$1 a pill (Johnson, 2015). This example is one of many that can be found where the market naturally responds to obscene price hikes by large pharmaceutical companies.

The pharmaceutical company Mylan came under fire late last year when it came into the spotlight that they had increased the price of EpiPens, their brand name version of the life saving drug epinephrine, from \$265 a pack to \$609 over the course of three years (Pollack, 2016). A company called Adrenaclick has been the alternative in recent years to the drug, offering a pack for just under \$300. Due to a new arrangement with CVS pharmacy's, Adrenaclick is now available for just over \$100, and with a coupon from the manufacturer, the price can be as low as \$10 without insurance (Skinner, 2017). CVS has locations in every US state except Wyoming, providing ample opportunity for customers with life threatening allergies to make a financial choice without sacrificing their safety. These price hikes are seen in vital medicines such as this, but the market can naturally correct for it.

This substitution of off-patent formulas requires that the formulas themselves be open and available to the public. Prior to this year, information on off-patent drugs was difficult to find through government databases. However, in June 2017, the FDA outlined in a 16 page document titled "List of Off-Patent, Off-Exclusivity Drugs without an Approved Generic", a large list of drugs that are available for an Abbreviated New Drug Application (ANDA) in order to be produced without rights to the formula. The FDA released this list in an attempt to fight the excessive price hikes in the industry by making more available the formulas for drugs that need a generic alternative (Tirrell, 2017). Now that companies have this information readily available, it is very easy for any of them to enter the market for a given drug and sell it at a price that can still earn them profit.

HB 18-1179 seeks to satisfy a market failure that doesn't exist. The market for off-patent drugs has been observed to adjust to companies that try to price gouge in order to make more of a profit. The government of the state of Colorado does not need to spend resources correcting the natural flow of the market in its economy. I strongly recommend that the committee votes against this bill, and lets the market handle itself accordingly.

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