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Should Life Sciences Companies Offer Crisis Prices for COVID-Related Innovations? (5/21, University of Toronto)

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What is the message? Pharmaceutical companies and other life sciences firms are creating innovative treatments, vaccines, tests, and other needed responses to the COVID-19 pandemic. As successes emerge from these efforts, the companies face the question of what prices to charge: to follow traditional pricing strategies that provide sustainable profitability or to offer lower than normal "crisis prices" that are unlikely to be sustainable? I argue that crisis pricing by established life sciences firms offers both strategic and financial benefits during the pandemic. Nonetheless, newer firms will struggle with crisis pricing strategies, while all firms face concerns that payers and politicians will expect low prices to continue post-pandemic. The only way that firms can afford to offer crisis prices during a crisis is to be sufficiently profitable during normal times to be able to invest in the technological and organizational strength needed to develop new solutions when a new crisis hits.

What is the evidence? Implications drawn from analysis of life science companies historical pricing strategies and financial strength.

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Life Sciences Companies Are Key To Creating COVID-19 Solutions

Many pharmaceutical firms and other companies in the commercial life sciences sector are actively working on short-term and long-term solutions to COVID-19. Firms are testing potential treatments, developing vaccines, producing tests, providing support services, and undertaking many critically important innovations for the pandemic.

Many of these attempts will fail – that is the nature of both science and the market – but even now some innovations are emerging as credible parts of the solution. Successes include the apparent value of using Gilead Science's remdesivir, an investigational nucleotide analog that has demonstrated at least some therapeutic impact against the virus that causes COVID-19. Remdesivir has received emergency use authorizations in both Japan and the U.S. [1] Other successes in treatments, vaccines, testing, and other services will undoubtedly emerge from other firms.

The successes raise the issue of pricing, particularly for pharmaceutical-related products. How much should companies charge for critically important therapies? In the case of remdesivir, for instance, pricing proposals have ranged from PublicCitizen arguing for $1 a day [2], which the organization believes would cover the incremental costs of the drug, to an Institute for Clinical Effectiveness Review that suggests a price of about $4,460 per patient.[3] Investors may suggest even higher prices for remdesivir and other treatments.

Long-Term Pricing

In the long term, the answer to the pricing question is straightforward. Life sciences companies need to charge prices that cover both the fixed and variable costs of their businesses, as well as generate sufficient profits to attract ongoing investment. Simply recovering the variable costs of producing and selling a successful drug is not enough: the mix of prices that a company charges needs to cover the substantial sunk costs of investing in both failed and successful projects.

In the pharmaceutical market, this means having multiple list prices that reflect value ceilings in

different markets and then negotiating discounts and rebates that manifest the bargaining power of payers in those markets. This is the pricing strategy that firms use today. [4]

The traditional pricing strategy is controversial among payers, consumers, and politicians – and has been controversial since the 1960s, at least. Yet it may be more obvious now during the pandemic why we need companies with sufficiently robust technical, organizational, and financial strength to be able to respond to unexpected demands such as the virus. If we pare profits to the bone with overly-demanding pricing regimens, we damage the companies' ability to respond when needed.

But what of the short term? Should Gilead and other companies offer more deeply discounted "crisis prices" in the face of the COVID pandemic? We do not suggest that Clorox reduce the price of bleach, which is an essential part of responding to the virus, even though Clorox's stock price rose more than 30 percent between the beginning of February and mid May. Should we ask life sciences companies that are at least as vital as Clorox for COVID solutions to provide lower than normal prices?

Short-Term Pricing

I will argue here that there is financial and strategic value in setting lower short term crisis prices, at least from established life sciences companies. At the same time, there are strong boundaries to that argument.

Strategic value

First, life sciences firms gain strategic value by being financially responsive to the current situation, where the responsiveness may help reinforce current gains in public views of the industry. In 2019, the pharmaceutical industry fell to the bottom of the Gallup industry reputation ratings, with a net positive score of negative 31. [5] Since the beginning of the coronavirus crisis, the industry faces competing dialogues: some signs of more favorable perceptions [6] countered by predictions of profiteering. [7] Offering crisis-priced treatments during the pandemic would help reinforce the positive sentiments.

It is not clear that such positive PR is essential. Established firms in the life sciences industry

have flourished despite decades of criticism. One approach would be to follow traditional pricing strategies and once again simply attempt to ride out the complaints. Yet the potential challenges of damaging price controls in the U.S. and in many other countries has never been higher: the claim that pharmaceutical prices need to be lower may be the only point of agreement among politicians from otherwise diametrically opposed viewpoints.

In addition, there is potential for countries to invoke compulsory licensing rules within the agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) of the World Trade Organization. Indeed, countries such as Chile, Israel, and Ecuador are already considering such actions [8], while the World Health Organization in May reinforced the potential for bypassing patents to deal with COVID-19 needs.[9] Crisis-pricing may reduce the incentives to invoke compulsory licensing. AbbVie, for instance, in March announced that it would remove patent-related limitations on the production and use of its HIV/Aids drug, Kaletra (lopinavir/ritonavir), which is being investigated for potential use against COVID-19. [8] Similarly, Novartis in March announced that it would donate more than a hundred million doses of hydroxychloroquine, which is being investigated as a possible treatment. [10]

In parallel with heightened political pressure, the life sciences industry is facing increased negotiating power on the part of newly-created combinations of health insurers, specialty pharmacy services, and pharmaceutical benefit management firms. [11] Reinforcing the current gains in positive reputation – and blunting the inevitable attacks – will provide negotiating points when these demands resurface after the pandemic has passed. Thus, there is strategic value in setting below-normal prices for COVID-related innovations during the pandemic.

Financial value

Second, there is financial value for the firms in providing short-term ceilings on prices. The goal of a profitable pricing strategy is to offer differential prices that meet the willingness and ability to pay of each market segment. So long as these differential prices exceed the variable costs of production and distribution and there is no parallel trade between segments, this strategy is profit maximizing. Such differential pricing is also a “fair” price, in the sense that no payer is forced to pay more than they are able and willing.

The pandemic has produced the difficult situation where the need for COVID-19 treatments is

huge, yet financial ability is more constrained than ever. Even in wealthy countries such as the U.S., consumers and third-party payers that traditionally had the ability to accept higher prices for valuable medicines are facing immense financial pressures in the face of reduced economic activity and deep losses. Attempting to enforce prices near the "value ceiling" in such cases will inevitably mean rationing of treatments to those who can afford the higher costs.

In turn, in addition to ethical concerns about limited access, the rationing will mean lost sales for the companies as those who cannot afford the higher prices are left out of the market and either do not receive the treatments or need to depend on unpaid compassionate care programs. How the trade-off between price and volume will affect net revenues depends on price elasticity; nonetheless, there will be real limits on profits. Hence, a lower than normal price at this point will lead at least to less reduction on in bottom line profits than in "normal" times and might actually be profit-maximizing.

Gilead is a useful example here. The company has extensive experience with differential pricing. Its long-established antiretrovirals have been offered at different markets, including many low- and middle-income countries, at prices that suit the ability to pay in individual markets. Gilead's hepatitis C treatment Sovaldi (sofosbuvir) and its follow-on drugs have been listed in different markets at prices that are relevant for those markets.

Indeed, even in "high price" markets such as the U.S., Gilead faced strong pressures from many payers for steep discounts from list prices of $75,000 or more for hepatis C treatment regimens, with discounts commonly reaching or exceeding 50 percent as competing drugs entered the market. Indeed, competition from drugs such as AbbVie's Mavyret (glecaprevir/pibrentasvir) and Gilead's own authorized generic brought U.S. list prices for hepatitis C treatments down to under $25,000, even before rebates and discounts. The point here is that high price windows even for highly innovative medicines often are short.

For coronavirus treatments, Gilead is rapidly moving to an active differential pricing strategy for remdesivir. The company has already signed agreements with generic manufacturers in India and Pakistan to supply the drug in 127 countries, with the generic partners setting prices based on local market conditions. [12] In this agreement, Gilead will not receive royalties as long as the World Health Organization maintains emergency status for COVID-19. This strategy of out-licensing production and sales for lower income countries is one that Gilead has used previously

with HIV/Aids and hepatitis C drugs, including providing licenses to the Medicines Patent Pool. The strategy leads to broad availability of the drugs globally and contributes to Gilead's financial success by providing sales that it would otherwise not be able to achieve.

Hence, "crisis prices" for COVID-19 solutions offer benefits for both strategic public perceptions and financial bottom lines.

Boundary Conditions: Newer Firms And Longer Term Expectations

Two caveats are important here, concerning newer firms and managing longer term expectations.

Newer firms need financial returns now

First, the argument above applies to established life science firms that can afford to take a short-term hit on their bottom lines. Fortunately, many of the companies that are devoting enormous time and money to developing treatments, vaccines, tests, and support are profitable established firms. They will not risk failing or struggle to gain new investments if they offer lower prices during the pandemic.

Yet many innovative companies do not have this ability. Instead, many of the firms that are active in developing potential solutions to COVID-19 are early-stage companies that do not have large reservoirs of retained income. Rather, they are still at the stage of large accumulated losses.

For example, consider Moderna Inc., which has received highly visible publicity about its work on a potential coronavirus vaccine.[13] This work has completed multiple phase 1 studies in several countries and is now entering phase 2 clinical testing. [14] The company's vaccine might or might not succeed, but it is one of the efforts that has a chance of paying off. In the four years ending December 31, 2019, though, Moderna has lost $1.37 billion in negative net income as it has invested in developing new therapies and vaccines.

Moderna is a clinical-stage biotechnology company that was founded in 2010 and went public in 2018. The company has research relationships with long-established major pharmaceutical companies such as AstraZeneca and Merck; with more recent life sciences companies such as

Vertex; with public agencies such as the Biomedical Advanced Research and Development Authority; with universities such as Harvard; and with civil society organizations such as the Gates Foundation. Funding for its research has come from contracts with these organizations and from investors' equity. Current investments in the company, including a planned secondary offering in May 2020 that seeks to raise about $1.25 billion, reflect investors' bets on both clinical success and future profitable prices.

Companies like Moderna that lack the resources that come from prior profitability– and there are many others in the same situation – do not have the financial strength for sustained crisis pricing. Novavax and Dynavax with potential vaccines, Sorrento with antibody research, and Vir Biotechnogy with potential treatments are just a few of many such examples. If we want the benefits of these companies' technical and organizational skills in fighting the COVID-19 pandemic and potential future crises, we need to be willing to pay for their successes.

Dealing with this issue will be challenging. One solution is for the newer firms to receive subsidies from established life sciences partners, foundations, and public agencies to help counter-balance crisis prices. A second is simply to hope that investors will continue to provide equity with the expectation that the firms will become profitable once the crisis passes. A third is for third-party payers to bite the bullet and be less demanding about discounts from such newer firms. No matter what the route, though, if we want the benefits of the successes, we will need to find a way to pay for them.

All firms need future profits to sustain their financial strength

Second, there is a real risk that some people with view "crisis pricing" as a "new normal". That is, some will conclude that if companies can afford to offer lower prices during the pandemic, they can continue to do so.

Yet the reason that established life sciences companies are able to offer crisis pricing is their historical profitability. Our payments for drugs in the past have created the financial strength that has allowed investments in technological and organizational capabilities that are producing the successes we need to solve the coronavirus crisis. If we are not willing to return to sustainable pricing policies, then we will undercut our ability to respond to future crises. Any crisis pricing needs to come with the recognition that we will return to normal pricing strategies

– and, ideally, do so quickly.

Looking Forward

I will not suggest a particular price for any drug or product. Firms have many options: Lower list prices, deeper discounts, global licensing, and extensive donations are just a few of the possible ways to provide “crisis prices”.

Rather than focusing on any one mechanism, the core argument here is that multiple forms of crisis pricing are relevant during the COVID-19 pandemic. The lower than normal prices will help life sciences companies turn the wheel on their negative reputation, providing a strategic win. They can be part of a thoughtful differentiated pricing strategy, providing a financial win. And, most importantly, they will help as many people as possible gain access to the innovative solutions that strong life sciences companies are helping to create.

Yet, we need to be careful about recognizing the context for any crisis pricing strategy. The very ability to offer such prices derives from the financial strength of the companies that are creating solutions. If we want crisis prices during the next crisis, we need to be willing to invest in the companies that will create the solutions. The traditional pricing strategy in the life sciences sector is a central part of those investments.

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