

The Price of Progress: Understanding Innovation and Affordability of Prescription Drugs

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Obesity affects more than 40% of adult Americans and costs society more than \$260 billion annually in excess medical expenditures.¹ A revolutionizing medication class—glucagon-like peptide 1 (GLP-1) agonists—has recently emerged, offering patients the opportunity to safely lose 10% to 20% of body weight without significant adverse effects.² Yet the high list prices of these drugs have raised affordability concerns, prompting calls for government intervention. In a recent study, Barber and coauthors estimate the production costs of GLP-1s and argue for price controls and compulsory licensing of generics and biosimilars to reduce GLP-1 prices.³ In this commentary, we argue that estimated production cost is not the key determinant in drug pricing but rather it is consumer demand. Moreover, a narrow focus on production cost, particularly when imposed ex post through governmental regulation, overlooks the critical role incentives play in driving pharmaceutical innovations that improve patient health and lower costs of care.

The Limitations of Marginal Cost Pricing

In basic economics, we learn that in a purely competitive market, production cost–based pricing (specifically marginal cost, or the cost of producing an additional unit) is maximally efficient. However, dynamic issues arise in the context of drug discovery and development. Specifically, the enormous investments required to bring new vaccines and medicines to market are incentivized through the temporary exclusivity period enshrined in patent law. The absence of these incentives can lead to suboptimal outcomes by limiting investment in potentially life-improving therapies.⁴ To be clear, this is not to say that high research and development (R&D) costs cause high drug prices; that is the *sunk cost fallacy*—the misconception that money already spent should influence future pricing. Instead, the opposite is true: It is the expectation of (temporary) lucrative profits for extraordinary drugs that leads to large and inherently risky R&D investments in the first place. If prices are limited or otherwise legislated, there will be less investment in drug development.

Hence, quite apart from production cost, the key determinant of prices for prescription drugs is economic demand, or plan

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TAKEAWAY POINTS

- ▶ Relatively high initial prices for innovative drugs such as glucagon-like peptide 1 receptor agonists are reflective of consumer demand, not production costs.
- ▶ Increased competition and patent expiration lead to lower prices.
- ▶ Policy makers should resist calls for drug price controls and other regulations, which would only drive reductions in research and development investments and result in fewer novel therapies.

and member willingness to pay. A complicating factor is health insurance causing patients not to experience the full price, which may inflate demand. This is the familiar problem of moral hazard and is the rationale for patient cost sharing. Currently, the GLP-1 market is being influenced by a set of factors that are together driving demand. First, GLP-1s are incredibly effective at facilitating substantial weight loss, which in turn leads to improvements in obesity-related comorbidities such as diabetes, hypertension, and obstructive sleep apnea.⁵ Second, although GLP-1 receptor agonists often cause mild to moderate gastrointestinal adverse effects, serious adverse events are relatively uncommon.⁶ Given these attributes and with only a few unique drugs in the therapeutic class, prices are indeed relatively high. However, with increased competition, GLP-1 prices will most certainly decline and the economic and health benefits generated through GLP-1 use will continue.

The pricing trajectory of direct-acting antivirals (DAAs) for hepatitis C illustrates the dynamic nature of drug markets. Launched at high prices—such as \$84,000 for a 12-week course of sofosbuvir—DAAs sparked significant budgetary concerns among public and private insurers. Despite the initial panic, there was substantial willingness to pay due to the lack of treatment alternatives and the high efficacy of these curative drugs. Over time, the entry of competitors and generic versions has significantly driven down prices. This market evolution has not only made treatment more accessible to patients with hepatitis C, but it has also generated tremendous economic benefits. Through 2024, DAAs have saved Medicaid an estimated \$28 billion in avoided medical and prescription drug expenditures after accounting for the cost of DAAs themselves.⁷

As more pharmaceutical companies develop and bring to market their own versions of GLP-1 agonists, the competitive pressure will inevitably lead to lower prices. Each new entrant increases the supply of similar drugs. Eventually, as patents expire and generics enter the market, the prices of GLP-1s will decline toward their production costs. Thus, although current prices are influenced by demand and willingness to pay among those with obesity, increasing competition will foster a market environment that more closely resembles the ideal of marginal cost pricing, making these life-changing medications more broadly accessible.

Conclusions

Society has long recognized that innovation warrants reward, which is fundamentally why patent protections exist. This framework ensures that developers of groundbreaking treatments can reap high returns for their substantial investments and risks. Ex ante, society has a high willingness to pay for novel treatments; ex post, society is often reluctant to pay. However, accepting the reality of temporary high prices as a trade-off for fostering innovation is necessary if we desire faster development of life-improving therapies. It is important to acknowledge that implementing arbitrary methods to force price reductions could deter investment in new drug development, potentially stalling progress in medical science. However, the current framework, which grants substantial market power to innovators during the exclusivity period, essentially allows them to capture most of the economic benefits. This raises the question of whether consumers might prefer to sacrifice some level of innovation to access more affordable treatments sooner. The challenge lies in balancing these competing interests: fostering innovation while ensuring that the benefits of new treatments are accessible. Ultimately, it is very difficult to quantify the value of a drug not developed.

Furthermore, the policy landscape would benefit from a shift in perspective regarding often derided “me-too” drugs. Far from being mere redundancies, these drugs introduce competition that helps drive prices toward marginal costs. Indeed, with GLP-1s from only 2 competitors—Novo Nordisk and Eli Lilly and Company—there is already evidence that substantial price discounting through rebates is taking place.⁸ Speeding more competitors to market will only hasten this process.

Finally, it is important to remember that the inherent life cycle of pharmaceuticals is governed by patent laws. With the inevitable expiration of patents, the entry of generics into the market is assured, which will naturally lower prices and enhance accessibility. This cycle of innovation and competition ensures that drug developers are rewarded for their contributions and that treatments eventually become more affordable, benefiting society at large. Above all, we should avoid shortcuts that seek to circumvent the process in pursuit of visible fast savings at the expense of invisible but very real and potentially very large costs. ■

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