

The Price of Survival: Ethical Failures and Pharmaceutical Profit in the U.S. Drug Market

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Keywords: pharmaceutical pricing, public health ethics, drug access, healthcare policy, pharmaceutical reform

<https://doi.org/10.54111/001c.141523>

Boston Congress of Public Health Review (BCPHR, Formerly HPHR)

Vol. March 2025, Issue 90, 2025

The American pharmaceutical system exemplifies a structural ethical failure, where access to life-saving drugs is mediated not by clinical urgency but by commercial valuation. While scientific innovation continues to advance, affordability and accessibility remain fragmented, especially for low-income communities and communities of color. This paper examines how corporate strategy, legal frameworks, and regulatory gaps converge to normalize exclusion. Drawing on ethical frameworks of consequentialism and distributive justice, it argues that preventable harm is not an unintended byproduct of the market, but an engineered outcome. Case studies, including insulin and hepatitis C treatments, demonstrate that exorbitant pricing is often safeguarded by patent gamesmanship, market opacity, and financial intermediaries. These mechanisms disproportionately burden the vulnerable while inflating industry profits. Moreover, the rhetoric of innovation is frequently weaponized to resist regulation, even as many so-called innovations yield minimal therapeutic gains. In response, this paper proposes reforms centered on public pharmaceutical infrastructure, centralized price negotiation, mandatory transparency, and patent law overhaul. These measures do not oppose innovation; they recalibrate it toward public good. Without structural change, innovation becomes a shield for inequity. True reform demands a system where the benefits of scientific progress are not auctioned to the highest bidder but shared as a matter of justice.

*"History will not remember how profitable our cures were,
only how many were left to die waiting for them."*

– Jonathan Lee

AN ENGINEERED CRISIS

In 2016, the average annual cost for insulin reached \$5,705 per patient in the United States, a drug that costs roughly \$10 to manufacture per vial.¹ For individuals managing diabetes, a chronic and life-threatening condition, this financial burden often forces impossible tradeoffs: food or medication, rent or survival. The story is not unique to insulin. Cancer therapies, HIV treatments, and even emergency use medications like naloxone have experienced similarly steep price increases, regardless of production cost or public demand. The average list price of insulin has nearly tripled between 2002 and 2013 and has continued to rise since, despite being over a century old.² While innovation in medicine continues to make remarkable strides, the reality for millions of patients is that these lifesaving advancements remain financially inaccessible, with nearly one in five adults reporting that they have rationed or skipped medication due to cost.³

Pharmaceutical companies operate within a complex intersection of science, capitalism, and ethics. They are re-

sponsible for advancing medical breakthroughs and making those breakthroughs available to patients. Yet unlike public health systems, pharmaceutical companies are driven by corporate imperatives, and profitability remains a core objective. This tension between medical advancement and financial gain has led to growing ethical concerns, especially as access to vital medications becomes increasingly restricted. While high prices are often justified by referencing research and development expenses or investor expectations, such arguments lose their ethical weight when patients are excluded from care due to cost. While pharmaceutical companies have a fiduciary duty to their shareholders, it is ethically indefensible to prioritize profitability over drug efficacy and patient accessibility. This practice weakens public health systems, reinforces structural inequities, and betrays the duty of care owed to patients whose lives depend on access to affordable medications.

The American pharmaceutical industry has not always operated under the model that is seen today. Prior to the 1980s, most drug development in the United States was publicly driven, with federal agencies such as the National Institutes of Health funding the basic and early-stage research that underpinned pharmaceutical innovation. In fact, by the late 1970s, the federal government funded an estimated two-thirds of all biomedical research in the

country.⁴ During this era, discoveries made in publicly funded laboratories were generally placed in the public domain or licensed non-exclusively, ensuring broader access to innovations.⁵ Drug pricing was also shaped by public reimbursement structures. Programs like Medicare and Medicaid negotiated or set reimbursement rates, which effectively constrained how much could be charged for many essential medications.⁶

However, the passage of the Bayh-Dole Act in 1980 fundamentally altered the landscape by allowing private companies and universities to patent publicly funded research, enabling them to commercialize discoveries that were once freely shared.⁷ This legislative shift marked a turning point, laying the groundwork for a profit driven model that prioritizes intellectual property, exclusivity, and shareholder returns.

Since the enactment of the Bayh-Dole Act, the pharmaceutical industry has experienced a significant transformation in its research focus and profit orientation. Notably, between 1998 and 2003, the U.S. Food and Drug Administration approved 487 drugs, of which approximately 78% were identified as “me-too” drugs, medications that offer little to no therapeutic advantage over existing treatments, while the percentage of new drug approvals that were classified as “first-in-class” treatments, those that represent real therapeutic breakthroughs, declined.⁸ This trend indicates a strategic shift towards developing drugs that can quickly enter the market with minimal research investment, thereby maximizing profitability. Concurrently, the industry’s financial performance has outpaced many other sectors. For instance, from 2000 to 2018, large pharmaceutical companies reported a median gross profit margin of 76.5%, significantly higher than the 37.4% reported by companies in the S&P 500 Index.⁹ From 1997 to 2016, industry promotional spending more than doubled to \$30 billion annually, reflecting a shift in focus from discovery to market dominance.¹⁰ This evolution underscores a clear trend: the pursuit of revenue has increasingly dictated not only which drugs are brought to market, but also which populations can access them. The result is a system where research innovation exists, but is often filtered through commercial viability rather than medical necessity.

CORPORATE STRATEGY OR ETHICAL ABDICATION?

Today, pharmaceutical pricing is dictated less by production cost and more by strategic financial planning. Companies often set prices based on what the market will bear rather than on clinical value.¹¹ These prices are protected and prolonged through an array of mechanisms: overlapping patents that delay generic competition, exemplified by the prostate cancer drug Xtandi, which has become a focal point in debates over patent abuse and government intervention; and exclusivity agreements with pharmacy benefit managers (PBMs) that secure favorable formulary placement in exchange for rebates or discounts.^{12,13} These dynamics, while legal, obscure true pricing structures and impede affordability.

PBMs, GPOs, and other intermediaries play a significant role in shaping the final cost of medications. According to a 2019 analysis by the Commonwealth Fund, PBMs act as powerful intermediaries in the drug supply chain, often engaging in practices that lack transparency and disproportionately benefit large insurers and wholesalers while obscuring the true cost of medications.¹³ These entities often profit not from lowering prices, but from negotiating favorable contracts with manufacturers and insurers that maintain high list prices while offering confidential rebates. At the same time, the United States lacks a centralized price negotiation system like those found in other high-income nations, leaving manufacturers free to set launch prices with little constraint or oversight.

Another financial actor influencing pharmaceutical prices is the rise of private equity (PE) ownership within the healthcare sector. In recent years, PE firms have increasingly acquired

pharmaceutical manufacturers and distributors, introducing a model that prioritizes short-term financial returns over long-term public benefit. These acquisitions are often funded through leveraged buyouts that saddle target companies with debt, pressuring them to raise drug prices to meet aggressive investor expectations.¹⁴ A 2021 study found that PE involvement in healthcare is associated with price increases averaging 25 to 32 percent, even for essential and generic medications.¹⁵ This financial engineering, while legal, invites ethical scrutiny. When pricing decisions are driven not by therapeutic value or production cost but by the need to deliver rapid profits to shareholders, access to care becomes increasingly compromised. The influence of private equity underscores the need for regulatory oversight that considers not just clinical efficacy, but also the financial structures shaping the availability and affordability of essential drugs.

Patent gaming also remains a key strategy in maintaining monopolistic pricing. As of 2023, the top twelve best selling drugs in the U.S. had an average of 125 patent applications filed per drug, with companies using overlapping patents to block generic entry by an average of 38 years.¹⁶ This extends exclusivity periods and stalls market competition, effectively delaying affordable alternatives. As a result, patients face limited options and inflated costs even after drugs should have become accessible.

The interplay between middlemen, intellectual property law, and regulatory gaps reveals a system optimized not for equitable access or public health outcomes, but for the maximization of profit. Given this structure, the ethical question becomes inescapable: Are profit first strategies morally acceptable in a market where the stakes are human lives?

CONSEQUENTIALISM AND THE COST OF EXCLUSION

Consequentialism is an ethical theory that evaluates the morality of actions based on their outcomes, particularly the extent to which they promote overall good or minimize harm.¹⁷ Applied to, pharmaceutical industry, this lens re-

veals that prioritizing profit over accessibility produces consequences that are difficult to justify. The most evident outcome of current pricing practices is the restriction of life saving drugs to those who can afford them. A nationally representative study published in 2021 found that one in five U.S. adults who use prescription medications have rationed or skipped doses due to high costs.³ When a system generates widespread suffering, delayed treatments, and preventable deaths, it fails the consequentialist standard of maximizing positive outcomes for the greatest number of people.

Proponents of high pricing models often argue that profitability is essential for funding research and development. However, data show that the U.S. federal government contributed over \$100 billion to research associated with every one of the 356 new drugs approved between 2010 and 2019.⁴ Furthermore, profit margins in the pharmaceutical sector consistently outpace those in other industries, suggesting that the scale of profitability is not simply about reinvestment, but also about sustaining shareholder wealth. The consequence is a dual system: innovation exists, but so does inaccessibility. Drugs that could transform or extend lives remain out of reach for those who need them most.

A consequentialist analysis must interrogate not only individual outcomes but also systemic inequities that result from pricing structures. High drug costs disproportionately burden low-income populations and communities of color, who are more likely to experience chronic illnesses but less likely to have consistent insurance coverage or disposable income to manage escalating pharmaceutical expenses. A 2023 report from the Urban Institute found that 25% of low-income adults in the United States delayed or went without necessary prescriptions due to cost, compared to just 6% among high-income adults.¹⁸ These disparities are compounded by structural barriers, including underinsurance, transportation gaps, and provider shortages in medically underserved areas; each of these factors further delay and diminish access to essential medications.¹⁸ The result is not only worse health outcomes but a systematic erosion of health equity.

Moreover, inflated pharmaceutical prices fracture public trust in the health care system itself. When life-extending treatments become inaccessible not because of clinical scarcity but due to economic exclusion, the public increasingly views health care as a commercial enterprise rather than a public good. This perception is not speculative. A recent KFF survey found that 79% of Americans believe drug prices are “unreasonable,” and over half report distrusting pharmaceutical companies to act in the public interest.¹⁹ This erosion of legitimacy is particularly severe among historically marginalized populations, for whom the medical establishment has long been a site of exclusion and exploitation. In this light, the moral failure of pharmaceutical pricing extends beyond access: it strikes at the foundational trust that enables systems of care to operate with social legitimacy.

Ultimately, a system that privileges profit over access collapses under the weight of its own consequences. When

those in need are left untreated while corporations accumulate wealth, the result is not a lapse in justice but a structured abandonment of it. This is not simply a policy failure or moral oversight. It is the deliberate preservation of a status quo where healing becomes a luxury, and suffering is quietly priced into the margins.

RATIONED ACCESS, UNEQUAL BURDENS

Distributive justice centers on the principle that fairness should govern how benefits and burdens are shared across society.¹⁷ In the context of pharmaceutical pricing, this framework raises critical concerns about who gains access to life saving medication and who is excluded. If fairness is the essence of justice, then access to medicine, a fundamental component of health and dignity, must not be tethered to income, geographic location, or insurance coverage. It should be grounded in the universal worth of the individual, not the economic value assigned to their condition.

Yet the current model continues to allocate medication based on market power rather than medical need. The United States has some of the highest drug prices in the world, while millions of uninsured or underinsured patients struggle to fill prescriptions.²⁰ A 2023 report by the National Academies of Sciences, Engineering, and Medicine found that nearly one third of adults in the United States who depend on prescription drugs are forced to alter or abandon their treatment plans because of financial constraints.⁴ This reality reveals a system that privileges commercial leverage over medical necessity, where access is not a function of need but a calculation of profit.

Still, defenders of the current model argue that pricing flexibility is essential for driving innovation. But how strong are these claims under ethical scrutiny?

INNOVATION AS ETHICAL CAMOUFLAGE

Opponents of regulating drug prices argue that profitability is indispensable to innovation. According to the Pharmaceutical Research and Manufacturers of America (PhRMA), high returns are necessary to support the enormous costs and risks associated with drug development.²¹ They argue that without strong financial incentives, companies would lack the resources and motivation to pursue ambitious research agendas or develop breakthrough therapies. This perspective presents the pharmaceutical industry as a fragile yet vital ecosystem in which any interference risks stifling medical progress.

However, this defense rests on a selective reading of the facts. While it is true that private companies invest heavily in clinical trials and commercialization, public sector research lays the foundation for many transformative treatments. According to a 2023 National Academies report, every one of the 356 new drugs approved between 2010 and 2019 had been supported by NIH-funded science.⁴ From the mRNA technology behind COVID-19 vaccines to oncology agents targeting specific pathways, initial discoveries often stem from taxpayer-backed research institutions. If profit were the sole engine of innovation, such massive public

investment would not be the backbone of early-stage research.

Moreover, the assumption that high prices are synonymous with high innovation is increasingly untenable. Some of the highest grossing drugs in the United States, such as Humira, Revlimid, and Lantus, offer only incremental benefit over existing alternatives.⁶ Yet, these products maintain premium pricing not through clinical superiority, but through layers of patent protection, evergreening strategies, and aggressive marketing. This indicates that profitability is not always a reward for meaningful innovation but often a function of monopolistic protection.

Others argue that price regulation would lead to shortages or compromise drug quality. This concern has been echoed in public statements by PhRMA and certain market analysts; however, international comparisons offer compelling counterpoints. Countries such as Germany, the Netherlands, and Australia all employ centralized price negotiation mechanisms or cost-effectiveness thresholds, yet they maintain high standards of care, rapid access to new drugs, and robust pharmaceutical sectors. These countries use health technology assessments (HTAs) or reference pricing models to ensure fair reimbursement while fostering innovation.²² Their success undermines the claim that deregulated pricing is a prerequisite for scientific advancement. These global models suggest that maintaining high standards of care does not require unrestricted pricing, and that market oversight can coexist with innovation and public benefit.

In truth, the industry's resistance to reform reveals less about economic necessity and more about political will. Many of the arguments used to justify the status quo are not empirical truths but rhetorical shields. A system that excludes the sick in the name of shareholder value may be legally permissible, but it is not ethically defensible.

DISCOVERY WITHOUT DELIVERANCE

Real-world case studies illustrate how the prioritization of profit over patient accessibility produces consequences that align with neither medical responsibility nor moral reasoning. The insulin market in the United States offers one of the most damning examples. Insulin, discovered in 1921 and once gifted to humanity without a patent, has become a commercial monopoly with life-or-death implications for millions of Americans. Despite costing manufacturers between \$2 to \$4 to produce a vial of insulin, the average list price for a vial in the United States was approximately \$98.70 in 2018, compared to \$14.40 in Japan, \$12 in Canada, \$11 in Germany, and \$7.52 in the U.K.^{23,24} This price inflation is not the result of scarcity or innovation but the product of a triopoly, Eli Lilly, Novo Nordisk, and Sanofi, control over 90% of the global insulin market.²⁵ These firms have engaged in near-identical pricing patterns, a practice critics have called “shadow pricing,” effectively locking patients into unaffordable payment structures without meaningful competition.^{25,26} A 2022 study found that nearly 1.3 million U.S. adults with diabetes rationed insulin in the past year; among them, over 70%

were under the age of 65 and therefore not eligible for Medicare's \$35 insulin cap.²⁷ The consequence is a quiet epidemic: preventable hospitalizations, amputations, and deaths that disproportionately impact low-income communities and communities of color. These outcomes are not unfortunate oversights in a complex system; they are the direct result of market structures that price necessity beyond reach and force the most vulnerable to make impossible choices between health and survival.

Another example is the pricing strategy for hepatitis C treatments such as Sovaldi, produced by Gilead Sciences. Upon its release, the drug was hailed as a revolutionary cure, boasting a 90 percent success rate. But its \$84,000 price tag for a 12-week course sparked public outrage. A 2015 investigation by the U.S. Senate Finance Committee revealed that Gilead intentionally set a high launch price knowing it would restrict access, prioritizing revenue goals over patient outcomes. Internal documents emphasized a strategy focused more on financial performance than on therapeutic reach, even as public health agencies raised alarms. This example demonstrates how pricing decisions, when made in pursuit of profit, can undermine the ethical foundation of medical care by placing corporate earnings above human lives.²⁸

What unites these cases is not a failure of innovation, but a deliberate engineering of inaccessibility. When medical breakthroughs exist but remain out of reach, the problem is not scientific; it is moral. The consequences are not theoretical abstractions but real and measurable harms: shortened lifespans, preventable suffering, and the erosion of patient autonomy. These examples are not mere lapses in policy; they are emblematic of a system that mistakes economic efficiency for ethical legitimacy. Together, they reveal the moral failure embedded in a system that allows medical miracles to exist in parallel with preventable suffering. These are not unfortunate anomalies but predictable outcomes of a framework that has lost sight of its most essential duty: to place human well-being above financial reward.

POLICY REDESIGN FOR ETHICAL REALIGNMENT

To meaningfully confront this ethical crisis, pharmaceutical reform must be anchored in a vision of health care that places human dignity at its center. Economic efficiency alone cannot justify a model that prices survival beyond reach. Instead, reform should be guided by principles of equity, transparency, and collective responsibility.

One foundational step could involve expanding public pharmaceutical infrastructure to serve as a complementary force alongside private manufacturers. This institution would focus on producing essential medications that the private sector has priced beyond reach or deprioritized due to low profitability. International models provide compelling evidence of the efficacy of such systems. For instance, Sweden's Apoteket AB, a state-owned enterprise, ensures the availability of essential medicines while coexisting with private entities. Similarly, Brazil's Farmanguinhos, a public pharmaceutical laboratory, plays a pivotal role

in producing and distributing affordable medications, particularly for neglected diseases.²⁹ By intervening in markets where commercial incentives have failed to meet public health needs, a public pharmaceutical option could reintroduce competition based on access and affordability, not exclusivity or shareholder return.⁵ Such a body would introduce competitive pressure to lower prices while ensuring that medications critical to life and well-being remain available regardless of commercial viability.

Beyond public manufacturing, the United States must implement a centralized price negotiation system. The Inflation Reduction Act (IRA) of 2022 marked a significant policy shift by allowing Medicare to negotiate prices for select high-cost drugs.³⁰ While this represents progress, its scope is limited, covering only a fraction of the pharmaceutical market and excluding many patients outside Medicare. Moreover, the negotiation process under the IRA is constrained by statutory criteria and timelines, potentially limiting its impact on broader drug pricing dynamics. To build upon the IRA's foundation, the U.S. could adopt more comprehensive price regulation models akin to those employed by other high-income countries. The World Health Organization (WHO) advocates for policies such as external reference pricing, where drug prices are benchmarked against those in comparable markets, and value-based pricing, which aligns prices with therapeutic benefits.²⁹ The Organisation for Economic Co-operation and Development (OECD) also highlights the effectiveness of centralized price negotiations in achieving cost containment without compromising access or innovation. By empowering federal agencies to negotiate directly with pharmaceutical companies, drug prices can be brought in line with clinical value rather than speculative profit. This is not unprecedented; nearly every other high-income country employs such a strategy to balance innovation with accessibility.³¹ Instituting price negotiation would also create pressure to justify pricing with data on therapeutic benefit and development costs, rather than market tolerance alone.

Transparency is also essential. Mandating disclosure of R&D expenditures, pricing methodologies, and rebate structures would shift pharmaceutical accountability from shareholders to patients. A 2021 study published in JAMA Health Forum found that the median cost of developing a single cancer drug was \$684 million, while the median revenue after approval was \$14.50 billion, an over 20-fold return on investment.³² Currently, companies can obscure the true cost of drug development while charging exorbitant prices under the guise of innovation. This massive disparity underscores how limited transparency enables pricing that reflects market tolerance rather than therapeutic value. Full disclosure would expose when pricing is predatory rather than purposeful.

Finally, patent law must be reformed to dismantle the legal scaffolding that sustains monopolies. Curbing patent evergreening and limiting the abuse of secondary patent filings would allow generics and biosimilars to enter the market faster, widening access and decreasing cost without compromising innovation. This is not an attack on intellectual property. It is a call to ensure that the patent system

fulfills its intended function: to reward genuine innovation without enabling indefinite monopolies that hinder access. According to a 2021 report by the U.S. House Committee on Oversight and Reform, AbbVie filed 257 patent applications for just two drugs, Humira and Imbruvica, delaying competition and generating more than \$170 billion in U.S. revenue.³³ Meanwhile, the Alzheimer's drug Namenda was modified from a twice-daily to a once-daily formulation shortly before patent expiry, a tactic the Federal Trade Commission labeled as anticompetitive "product hopping."³⁴ These examples are not anomalies but calculated strategies embedded in the pharmaceutical patent playbook. Without legal safeguards to prevent such abuses, exclusivity becomes exploitation. Patent reform is not simply a regulatory adjustment; it represents an ethical obligation to realign the incentives of innovation with the broader responsibility to ensure equitable access to life-saving treatments.

These proposals represent more than technical adjustments to a broken system. They reflect an urgent ethical imperative to redefine how society conceives of health, access, and justice. For too long, the pharmaceutical industry has functioned as an enterprise of exclusion, placing the burden of innovation on the shoulders of the vulnerable while extracting value from suffering. But medicine, in its truest form, is not a market transaction. It is a social covenant rooted in care, responsibility, and the preservation of life.

CONCLUSION: THE MORAL LEGACY OF OUR ERA

In a nation with immense scientific capacity and economic power, the continued inaccessibility of essential medications is not a necessity; it is a deliberate policy outcome. Like all choices, it reflects the values of society. If life-saving treatments are allowed to be rationed by wealth, society is not advancing; it is retreating into a system that condones inequality as an inevitability. This paper has argued that prioritizing profitability over efficacy and accessibility is not only unsustainable but morally indefensible.

In the end, the question is not whether we can afford to treat people. It is whether we are prepared to measure justice not by the strength of financial systems, but by the reach of our compassion. If we believe life has value, then we must build a system that reflects that belief.

The answer to this question will define not only the future of public health, but the moral legacy of how our era chose to value human life.

ACKNOWLEDGMENTS

I would like to thank Professor Alan Ross for his unwavering kindness, intellectual leadership, and belief in my voice. Through his course at University of California, Berkeley, UGBA 107: The Social, Political, and Ethical Environment of Business, I was challenged to explore ethics not just

as a framework but as a force for real-world change. His teaching gave me the space, confidence, and support to engage with these issues on a deeper level. This paper would not exist without the environment he created for critical thought and courageous inquiry. I am also grateful to the Life Sciences Business and Entrepreneurship program at UC Berkeley for introducing me to Shobhin Logani, whose mentorship has helped deepen my understanding of the pharmaceutical industry and the systems that shape access to care. This paper reflects the collective influence of those who have empowered me to think critically and act purposefully.

DISCLOSURE STATEMENT

The author has no relevant financial disclosures or conflicts of interest.

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Jonathan Lee is a queer, Black and Korean student raised in a single mother working-class household. His perspective is shaped by lived experience navigating exclusion in academic and healthcare systems. He writes from the intersection of biological study and economic inquiry, with the belief that public health must reflect both the realities of those left behind and the urgency to repair what has been neglected.

Submitted: April 21, 2025 EDT. Accepted: June 02, 2025 EDT.

Published: June 29, 2025 EDT.



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REFERENCES

1. Health Care Cost Institute. Spending on individuals with type 1 diabetes, 2012–2016. January 2019. Accessed May 19, 2025. <https://healthcostinstitute.org/hcci-originals/insulin-spending-type1-diabetes>
2. Robbins R. The US offers free insulin to some. Many don't know it exists. The New York Times. January 16, 2025. Accessed April 14, 2025. <https://www.nytimes.com/2025/01/16/health/insulin-prices-federal-clinics-340b.html>
3. Dusetzina SB, Keating NL, Huskamp HA. Share of Americans who report skipping medications due to cost remains high. *J Gen Intern Med*. 2021;36(8):2495–2497. doi:[10.1007/s11606-021-06915-2](https://doi.org/10.1007/s11606-021-06915-2)
4. National Academies of Sciences, Engineering, and Medicine. *The Role of NIH in Drug Development Innovation and Its Impact on Patient Access: Proceedings of a Workshop*. National Academies Press; 2023. Accessed April 14, 2025. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10134693/>
5. Brown D. Medicine for all: the case for a public option in the pharmaceutical industry. The Democracy Collaborative. 2019. Accessed April 14, 2025. <https://democracycollaborative.org/content/medicine-all>
6. Angell M. Excess in the pharmaceutical industry. *CMAJ*. 2004;171(12):1451–1453. doi:[10.1503/cmaj.1041594](https://doi.org/10.1503/cmaj.1041594). PMID:15583183
7. Sampat BN. Lessons from Bayh–Dole. *Nature*. 2010;468(7325):755–756. doi:[10.1038/468755a](https://doi.org/10.1038/468755a)
8. US Government Accountability Office. *Drug Industry: Profits, Research and Development Spending, and Merger and Acquisition Deals*. US Government Accountability Office; 2017. Accessed April 14, 2025. <https://www.gao.gov/products/gao-18-40>
9. Ledley FD, McCoy SS, Vaughan G, Cleary EG. Profitability of large pharmaceutical companies compared with other large public companies. *JAMA*. 2020;323(9):834–843. doi:[10.1001/jama.2020.0442](https://doi.org/10.1001/jama.2020.0442)
10. Schwartz LM, Woloshin S. Medical marketing in the United States, 1997 to 2016. *JAMA*. 2019;321(1):80–96. doi:[10.1001/jama.2018.19320](https://doi.org/10.1001/jama.2018.19320)
11. US Government Accountability Office. *Drug Industry: Profits, Research and Development Spending, and Merger and Acquisition Deals*. US Government Accountability Office; 2017. Accessed April 14, 2025. <https://www.gao.gov/products/gao-18-40>
12. Pagliarulo N. US government rejects request to seize patent rights on Xtandi cancer drug. BioPharma Dive. March 21, 2023. Accessed April 14, 2025. <https://www.biopharmadive.com/news/xtandi-march-in-rights-hhs-reject-working-group/645671/>
13. Seeley E, Kesselheim AS. *Pharmacy Benefit Managers: Practices, Controversies, and What Lies Ahead*. The Commonwealth Fund; 2019. Accessed April 14, 2025. https://www.commonwealthfund.org/sites/default/files/2019-03/Seeley_pharmacy_benefit_managers_ib.pdf
14. Scheffler RM, Alexander L, Godwin E, Workman T. *Private Equity in Health Care: Prevalence, Impact, and Policy Options for California and the U.S.* California Health Care Foundation; 2024. Accessed April 14, 2025. <https://www.chcf.org/wp-content/uploads/2024/05/PrivateEquityPrevalenceImpactPolicy.pdf>
15. Appelbaum E, Batt R. Private equity buyouts in healthcare: who wins, who loses? Institute for New Economic Thinking. 2021. Accessed April 14, 2025. <https://www.ineteconomics.org/perspectives/blog/private-equity-buyouts-in-healthcare-who-wins-who-loses>
16. Initiative for Medicines, Access & Knowledge. *Overpatented, Overpriced*. I-MAK. 2023. Accessed April 14, 2025. <https://www.i-mak.org/overpatented-overpriced>
17. Beauchamp TL, Childress JF. *Principles of Biomedical Ethics*. 8th ed. Oxford University Press; 2019.
18. Artiga S, Hill L, Orgera K, Damico A. Health and Health Coverage in the South: A Data Update. KFF. 2021. Accessed May 20, 2025. <https://www.kff.org/report-section/health-and-health-coverage-in-the-south-a-data-update-issue-brief>
19. Kirzinger A, Lopes L, Sparks G, Brodie M. Public Opinion on Prescription Drugs and Their Prices. KFF. June 2023. Accessed May 20, 2025. <https://www.kff.org/health-costs/poll-finding/public-opinion-on-prescription-drugs-and-their-prices/>

20. KFF. Public opinion on prescription drugs and their prices. KFF. 2023. Accessed April 14, 2025. <https://www.kff.org/health-costs/poll-finding/public-opinion-on-prescription-drugs-and-their-prices/>
21. Pharmaceutical Research and Manufacturers of America. Government price setting has potentially devastating consequences for patients. Accessed April 14, 2025. <https://phrma.org/policy-issues/government-price-setting>
22. Lipska K. The Price of Insulin: A Q&A with Kasia Lipska. Yale School of Medicine. April 27, 2023. Accessed May 20, 2025. <https://medicine.yale.edu/news-article/the-price-of-insulin-a-qanda-with-kasia-lipska/>
23. Mulcahy AW, Whaley CM, Tebeka MG, Schwam D, Edenfield N, Becerra-Ornelas AU. *Comparing Insulin Prices in the United States to Other Countries*. RAND Corporation; 2020. doi:[10.7249/RR788-1](https://doi.org/10.7249/RR788-1)
24. Access to Medicine Foundation. How the dominant global insulin producers must scale up access efforts to reach people with diabetes worldwide. November 2021. Accessed May 20, 2025. <https://accesstomedicinefoundation.org/news/how-the-dominant-global-insulin-producers-must-scale-up-access-efforts-to-reach-people-with-diabetes-worldwide>
25. Grassley C, Wyden R. Grassley, Wyden Release Insulin Investigation, Uncovering Business Practices Between Drug Companies and PBMs That Keep Prices High. U.S. Senate Committee on Finance. January 2021. Accessed May 20, 2025. <https://www.finance.senate.gov/chairmans-news/grassley-wyden-release-insulin-investigation-uncovering-business-practices-between-drug-companies-and-pbms-that-keep-prices-high>
26. Gaffney A, Himmelstein DU, Woolhandler S. Prevalence and Correlates of Patient Rationing of Insulin in the United States: A National Survey. *Ann Intern Med*. 2022;175(11):1623-1626. doi:[10.7326/M22-2477](https://doi.org/10.7326/M22-2477)
27. Herkert D, Vijayakumar P, Luo J, et al. Cost-related insulin underuse among patients with diabetes. *JAMA Intern Med*. 2019;179(1):112-114. doi:[10.1001/jamainternmed.2018.5008](https://doi.org/10.1001/jamainternmed.2018.5008)
28. US Senate Committee on Finance. *The Price of Sovaldi and Its Impact on the U.S. Health Care System*. US Senate Committee on Finance; 2015. Accessed April 14, 2025. <https://www.govinfo.gov/content/pkg/CPRT-114SPRT97329/html/CPRT-114SPRT97329-Part1.htm>
29. World Health Organization. WHO guideline on country pharmaceutical pricing policies. 2020. Accessed May 20, 2025. <https://www.who.int/publications/i/item/9789240011878>
30. KFF. FAQs about the Inflation Reduction Act's Medicare Drug Price Negotiation Program. February 2025. Accessed May 20, 2025. <https://www.kff.org/other/issue-brief/faqs-about-the-inflation-reduction-acts-medicare-drug-price-negotiation-program/>
31. Organisation for Economic Co-operation and Development. Supplementary Analysis: Price Transparency in Pharmaceutical Markets. 2022. Accessed May 20, 2025. <https://www.oecd.org/health/Supplementary-Analysis-Price-Transparency-Pharma-Markets-2022.pdf>
32. Wouters OJ, McKee M, Luyten J. Estimated research and development investment needed to bring a new medicine to market, 2009–2018. *JAMA*. 2020;323(9):844-853. doi:[10.1001/jama.2020.1166](https://doi.org/10.1001/jama.2020.1166)
33. U.S. House Committee on Oversight and Reform. Drug Pricing Investigation: Industry Spending on Buybacks, Dividends, and Executive Compensation. 2021. Accessed May 20, 2025. <https://oversightdemocrats.house.gov/sites/democrats.oversight.house.gov/files/2021-12-10%20COR%20Staff%20Report%20on%20Pharma%20Buybacks%20and%20Dividends.pdf>
34. Federal Trade Commission. FTC Sues to Stop 'Product Hopping' by Drug Maker Allergan. September 15, 2014. Accessed May 20, 2025. <https://www.ftc.gov/news-events/news/press-releases/2014/09/ftc-sues-stop-product-hopping-drug-maker-allergan>

SUPPLEMENTARY MATERIALS

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