



Pharmaceutical Prices Over Time & the Effects in the United States

Biomedical Science Program, Marian University, Indianapolis

Devin Wilham

Abstract (Background)

The annual increase on price of pharmaceuticals are becoming a growing health concern in the United States for patients, prescribers, and policy makers.

Why is this an issue?

- Prices of newly marketed and pre-existing pharmaceuticals in the United States has exponentially increased each year.
- The United States has spent more on pharmaceuticals than other countries. (PGPF)
- Increase in co-payments for pharmaceuticals reduce affordability of prescribed regimens and reduce patient adherence. (Kesselheim et. al.)

How did the issue come to be?

A series of instances have led to the issue at hand such as:

- United States healthcare system enables pharmaceutical manufacturers possessing the ability to freely set prices after approval. (Rome et.al.)
- The United States possesses market forces that enable continuous high pharmaceutical prices: protection from competition and negotiating power. (Kesselheim et. al.)

Who is Impacted

All citizens, adult and child, of the United States are impacted, but particularly those who do not possess adequate public or private health insurance.

- As of 2023, approximately 30 million people in the United States are uninsured and approximately 9 million children in the United States lack proper healthcare coverage.

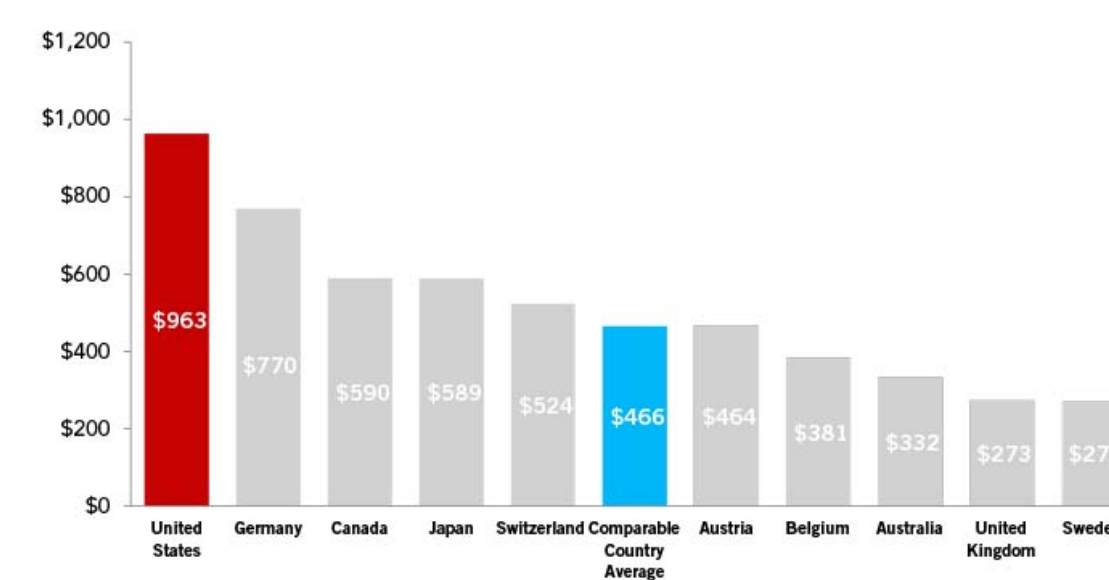
Evidence

Price Trends for Newly Marketed Drugs from 2008-2021 by Drug Characteristic

Drug characteristics ^a	Drugs, No. (%)	Price per y, 2008-2021, median (Q8), \$
All drugs	548	20 657 (3929-138 509)
Novelty		
New active ingredient	357 (65)	68 596 (7276-184 065)
Reformulation ^d	191 (35)	5429 (2105-18 782)
Ingredient type		
Biologic	139 (25)	84 508 (18 861-288 759)
Small molecule	409 (75)	10 580 (3076-98 516)
Approval pathway		
Accelerated approval ^e	64 (12)	168 344 (115 609-240 302)
Traditional approval	484 (88)	12 912 (3434-96 030)
Patient population		
Rare ^f	182 (33)	168 441 (78 291-338 379)
Nonrare	366 (67)	6252 (2675-33 227)
Indication		
Oncology	119 (22)	155 091 (109 832-233 916)
Nononcology	429 (78)	7783 (2963-52 483)
Route of administration		
Oral	282 (51)	15 630 (3948-115 609)
Injected	199 (36)	72 875 (9908-236 164)
Other ^g	67 (12)	3545 (1542-6689)

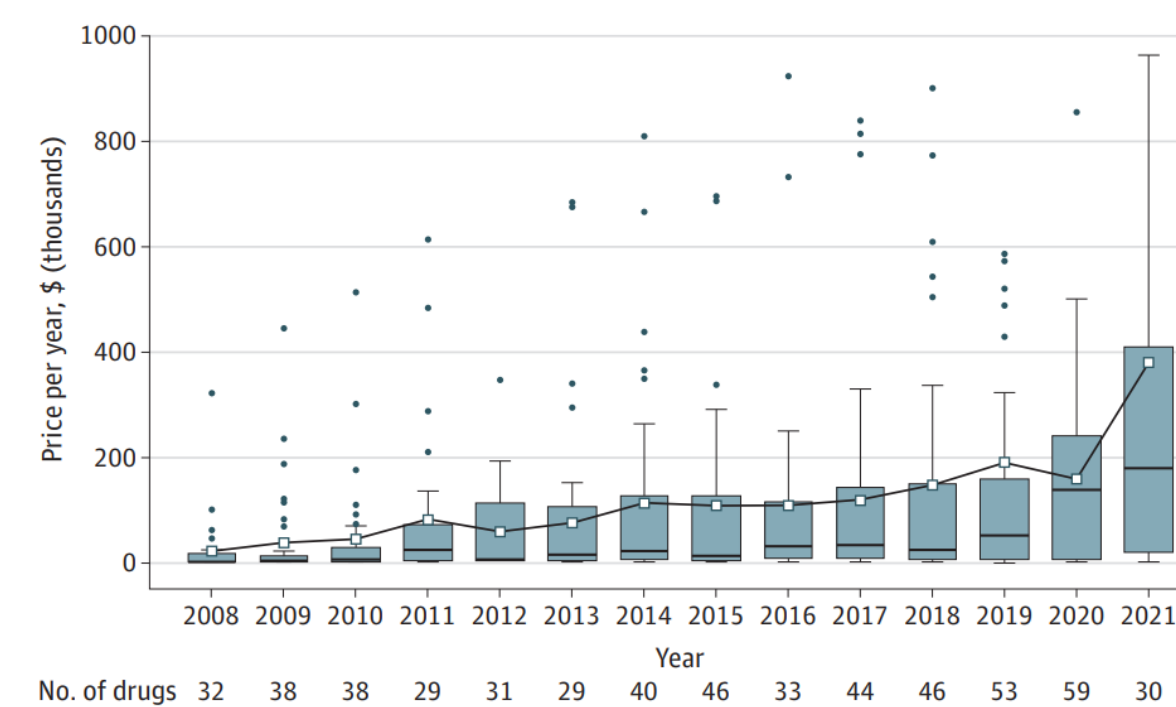
Price Trends overtime, 2008-2021. Reprinted from *Trends in prescription drug launch prices*, Rome et. al., 2022.

Per Capita Spending on Prescription Drugs in 2019 by Country



Per Capita Spending on Prescription Drugs, 2019. Reprinted from *Peter G. Peterson Foundation, PGPF, 2022.*

Prices for Newly Marketed Drugs from 2008-2021



Price Trends overtime, 2008-2021. Reprinted from *Trends in prescription drug launch prices*, Rome et. al., 2022.

Attention to Issue

With the annual growing price in pharmaceuticals in tandem with the number of people without adequate health insurance.

Multiple negative impacts arise such as:

- Increase in copayments reduce pharmaceutical use by 26% among low-income individuals.
- Increase in pharmaceutical fees led to a 14% reduction in the use of essential medications leading to a 78% increase in emergency room admission rates and 88% increase in adverse event rates.

Addressing the Issue

Within the recent years, pharmaceutical policy has been a major topic in the United States government. Most recently in 2022, progress within the pharmaceutical drug policy has been made by Congress.

• The Inflation Reduction Act -2022

- Provides authority to Medicare and Medicaid Services to negotiate pharmaceutical prices.
 - Require pharmaceutical companies to pay rebates to Medicare for price increases that outpace inflation.
 - Provide senior citizens with financial protection.
- In addition, in recent years, the Supreme Court of the United States forced the US Patent and Trademark Office reevaluate previous permissive approach to the patentability to pharmaceuticals.

Solutions

A potential solution is to increase government involvement to reduce pharmaceutical prices via:

- Creation of a separate governing body or enhancement of a pre-existing governing body within the federal government.
 - Negotiate pharmaceutical prices at their respective launch and continued sale.
 - Enhance to individuals on other healthcare plans beyond Medicare and Medicaid Services.

As pharmaceutical price decrease, the potential of increased affordability can transpire, thus:

- Increase use among low-income individuals.
- Increase use of essential medications.
- Decrease emergency room admission rates.
- Decrease adverse event rates.

Literature Cited

- Assistant Secretary for Public Affairs (ASPA). "New HHS Report Shows National Uninsured Rate Reached All-Time Low in 2023 after Record-Breaking ACA Enrollment Period." *HHS.Gov*, 8 Aug. 2023, www.hhs.gov/about/news/2023/08/03/new-hhs-report-shows-national-uninsured-rate-reached-all-time-low-2023-after-record-breaking-aca-enrollment-period.html.
- "How Many Americans Don't Have Health Insurance in November 2023?" *Simply Insurance*TM, 8 June 2023, www.simplyinsurance.com/how-many-americans-dont-have-health-insurance/.
- "How Much Does the United States Spend on Prescription Drugs Compared to Other Countries?" *Peter G. Peterson Foundation*, 7 Nov. 2022, www.pgpf.org/blog/2022/11/how-much-does-the-united-states-spend-on-prescription-drugs-compared-to-other-countries.
- Hwang, Thomas J., et al. "New reforms to prescription drug pricing in the US." *JAMA*, vol. 328, no. 11, 2022, p. 1041, <https://doi.org/10.1001/jama.2022.15268>.
- Kesselheim, Aaron S., et al. "The high cost of prescription drugs in the United States." *JAMA*, vol. 316, no. 8, 2016, p. 858, <https://doi.org/10.1001/jama.2016.11237>.
- Lexchin, Joel, and Paul Grootendorst. "Effects of prescription drug user fees on drug and health services use and on health status in vulnerable populations: A systematic review of the evidence." *International Journal of Health Services*, vol. 34, no. 1, 2004, pp. 101-122, <https://doi.org/10.2190/4m3e-llyf-w10-e8q0>.
- Nelson, Arthur A., et al. "The effect of a Medicaid drug copayment program on the utilization and cost of prescription services." *Medical Care*, vol. 22, no. 8, 1984, pp. 724-736, <https://doi.org/10.1097/00005650-198408000-00004>.
- Rome, Benjamin N., et al. "Trends in prescription drug launch prices, 2008-2021." *JAMA*, vol. 327, no. 21, 2022, p. 2145, <https://doi.org/10.1001/jama.2022.5542>.
- Tambllyn, Robyn. "Adverse events associated with prescription drug cost-sharing among poor and elderly persons." *JAMA*, vol. 285, no. 4, 2001, p. 421, <https://doi.org/10.1001/jama.285.4.421>.
- Wineinger, Nathan E., et al. "Trends in prices of popular brand-name prescription drugs in the United States." *JAMA Network Open*, vol. 2, no. 5, 2019, <https://doi.org/10.1001/jamanetworkopen.2019.4791>.