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Sticker Shock: Why Affordable Access to Insulin is Critical for Both Patients and Employers

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Sticker Shock:

Why Affordable Access to Insulin is Critical for Both Patients and Employers

By: Sean Moss

"How can I afford to stay alive?" My thoughts raced as I sat with the weight of the information that my endocrinologist had just given me. I was diagnosed with type 1 diabetes in the winter of 2022, and I suddenly realized I had been thrust into a world that was much more complicated than before. Not only did I need to manage my blood sugar to avoid lethal consequences, but I also realized how much it would cost for me to survive. While I knew that insulin prices were high, I didn't fully grasp the extent of the problem until I became completely dependent on this lifesaving medication. I realized that millions of people across the country face the same challenges as me and struggle to afford the insulin they need to survive.

The cost of insulin has skyrocketed in recent years for a multitude of reasons, and these prices make it difficult for many people with diabetes to afford the medication they need to survive. Additionally, when patients cannot pay for insulin, they end up in hospitals where their care becomes even more expensive. Employers are stuck with increased expenses when advanced care is required.

With prices averaging \$340 a vial (people with diabetes use 2-4 vials per month) and US prices being about eight times higher than in all non-OECD countries combined,¹ this is a problem that affects millions of people across the country, and we must address it to save lives.² While this issue is incredibly complex, and the nature of this article cannot explore the entirety of the issue, let's explore why this issue is happening, what are the effects of high insulin prices on individuals and businesses, and solutions that we can use to tackle this problem.

Causes

One of the most significant factors in high insulin prices is the nature of the insulin market in the United States, particularly in the lack of competition and monopoly-like behavior of insulin manufacturers. For example, according to a report by the US House of Representatives Oversight Committee, insulin manufacturers increased prices on their insulin drugs to the detriment of diabetes patients between 2001 and 2019. ³ With only three companies having control of over 90% of the insulin market globally and 100% of the US market, the report found that manufacturers had "intentionally and strategically raised their prices in lockstep." ⁴

A separate US Senate committee also found that competitors frequently engage in "shadow pricing," where manufacturers pursued a pricing strategy of closely following their competitors' price increases from 2014 on rather than undercutting them.⁵ Figure 1 demonstrates how quickly average US insulin prices have risen (by a factor of eight times) over the last 20 years. Additionally, Figure 1 demonstrates how competitors raise their prices at similar times and similar rates for their various kinds of insulin.⁶ other competitors from making generic kinds of insulin, thus increasing prices.

Arguably, the most significant factor in insulin price increases is pharmacy benefit managers (PBMs) use. PBMs play a large role in insulin price increases by negotiating drug prices between insurers and drugmakers who take a cut from the agreement, thereby lowering the price for insurers.¹³ They are also owned or allied with all major US insurers.¹⁴ PBMs are incentivized to negotiate higher prices for insulin as they stand to gain higher profits.¹⁵ Manufacturers entice PBMs to place their products in higher tiers of formularies (increasing the attractiveness of the drug to insurers) by offering rebates, which is the increased cut that the PBM would take. ¹⁶ This is evident in the increase in costs from production to retailing, with insulin production priced at \$2-\$6 per vial and retailing at over \$340 on average.¹⁷ Drugmakers and PBMs have strong incentives to raise prices because even if the final prices barely change or fall, the increased rebate results in higher profits for PBMs, more drugs sold from manufacturers to insurers, and higher costs for the patient overall.18

The impacts of the lack of competition in the insulin market and the intermediaries that increase prices at each step in the production process are clear. Cefalu et al. (2018) found that the average US wholesale-acquisition price for insulin increased



by 15-17% annually from 2012 to 2016. Individual costs can rise to over \$1000 per month for uninsured patients.¹⁹ Yale researchers also conducted a study on Americans who use insulin, their insurance coverage, and their financial burden. They found that 14% of insulin users in the US (1.16 million people) spend at least 40% of their postsubsistence income on insulin, categorizing it as "catastrophic"

7,8

Insulin prices also remain high because competitors cannot enter the market due to legal restrictions in the US patent system and a regulatory exclusivity period. Due to insulin patents, patients may not have access to cheaper insulin products as manufacturers discontinue or prescribe them less when new versions are released. This forces patients to buy newer and more expensive insulin from name brands. ⁹ This process is called "evergreening, "¹⁰ and the WHO claims that most patented insulin products are not innovations or improvements. ¹¹ The period of exclusivity also prevents direct competitors from making generic versions. ¹² These legal restrictions on the insulin market prevent spending.²⁰ Also, high insulin costs impact low-income people more, reducing their standard of living by taking away money needed for necessities like food and rent.²¹

The consequences of high insulin prices also expand outside of financial impacts and can even be lethal. Due to soaring prices, many patients may ration their insulin, leading to devastating health consequences. High blood sugar can be deadly, as diabetes is the seventh leading cause of death in the US.²² Insulin rationing is also a primary cause of lower limb amputation, heart disease, kidney failure, and adult blindness in the US.²³ Diabetes also increases the risk of mortality from various conditions, including infections,

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cardiovascular disease, stroke, chronic kidney disease, chronic liver disease, COVID-19, and cancer.²⁴ Additionally, diabetes has the second-largest negative impact on health-adjusted life expectancy worldwide.²⁵ The costs of treating high blood sugar and its consequences also far outweigh insulin prices.²⁶

High insulin prices also have a massive impact on employers as they pay for insurance claims for their employees. One study found that even with health insurance, employer spending on insulin doubled in four years,²⁷ even after rebates.²⁸ As insulin and insurance costs continue to rise, employers may be more hesitant to provide insulin to their employees, which would be disastrous to millions.²⁹ Diabetic employees will also not be able to function at their best if they are stressed about choosing to either pay for rent, food, or essential medical care.³⁰



To solve a large-scale problem like insulin prices, we need precise and accurate legislation to tackle this problem. For example, we can contact our elected officials and urge them to take action to address high insulin prices. We can ask them to support policies that will make insulin more affordable and accessible, such as promoting supply chain transparency, competition, patent reform, and biosimilar drugs to insulin.³¹ We can also promote policies such as improving health plan design and patient cost sharing, allowing government drug price negotiation, passing emergency access laws, and limiting copays for insulin.³²

Some of these measures have already been passed due to advocacy and regulatory pressure. In the past month, all 3 US insulin manufacturers have cut their insulin prices by over 70%, but they remain disproportionately high compared to the rest of the world. ³³ Many states and the federal government are also acting. A new federal law limits Medicare insulin costs to \$35 per month, and 22 states plus the District of Columbia have also established caps on private plans.³⁴ The state of California also has funded plans for state-produced insulin to be sold at 90% less than market prices and capped insulin sold in the state at \$30 per vial. ³⁵

Conclusion

High insulin prices in the United States make it difficult for millions of people with diabetes to afford the medication they need to survive. Additionally, hospitals and businesses are slapped with high and unnecessary expenses when insulin isinaccessible to patients.

One of the most significant factors in high insulin prices is the monopolistic behavior of insulin manufacturers, with only three companies having control of over 90% of the global insulin market and 100% of the US market. Another factor is the use of pharmacy benefit managers (PBMs) who negotiate drug prices between insurers and drugmakers, taking a cut from the agreement and lowering the cost for insurers. The impacts of the lack of competition in the insulin market and the intermediaries who increase prices at each step in the production process can be lethal, with patients rationing their insulin and leading to devastating health consequences. Although this problem is massive, we can create solutions, including improving transparency and competition, addressing regulatory issues, and expanding public health insurance coverage. Now that you know the gravity of this problem, act against it by urging change through policymakers, telling your story, and advocating for others. Together, we can create effective policies to create change to help millions of Americans. inaccessible to patients.

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Notes:

¹ Myshko, Denise. "INSULIN PRICES: Lowering them is a Group Effort." Managed Healthcare Executive 32, no. 7 (07, 2022): 19-20. https://byu.idm. oclc.org/login/?url=https://w ww.proquest.com/trade-journals/insulinpriceslowering-them-is-groupeffort/docview/2697160787/se

² Mulcahy, Andrew W., Daniel Schwam, and Nathaniel Edenfield, Comparing Insulin Prices in the United States to Other Countries: Results from a Price Index Analysis. Santa Monica, CA: RAND Corporation, 2020. https://www. rand.org/pubs/research_reports/ RRA788-1.html.

³ Diane Bartz, "Drugmakers Aim Big Price Hikes at U.S. Patients, Congressional Report Finds," Reuters (Thomson Reuters, December 10, 2021), https://www. reuters.com/world/us/drugmake rs-aim-big-price-hikes-us-patientscongressionalreport-2021-12-10/.

⁴ Nikolaj Skydsgaard, "Novo Nordisk Rejects U.S. Report on Aggressive Insulin Price Hikes," Reuters (Thomson Reuters, February 2, 2022), https://www. reuters.com/business/healthcare -pharmaceuticals/novo-nordisk-rejects-usreportaggressive-insulin-price-hikes-2022- 02-02/.

⁵ "Grassley, Wyden Release Insulin Investigation, Uncovering Business Practices between Drug Companies and PBMs That Keep Prices High: The United States Senate Committee on Finance," United States Senate Committee On 4 Submission to Marriott Student Review https://scholarsarchive.byu.edu/ marriottstudentreview 5 Finance, January 14, 2021, https://www.finance.senate. gov/chairmansnews/grassley-wyden-release-insulininvestigation-uncoveringbusiness-practicesbetween-drug-companies-and-pbms-thatkeep-prices-high.

⁶ "How Much Does Insulin Cost? Here's How 28 Brands and Generics Compare," GoodRx (GoodRx), accessed March 18, 2023, https://www.goodrx. com/healthcareaccess/research/how-much-does-insulincost-compare-brands.

⁷ Jeremy A. Greene and Kevin R. Riggs, "Why Is There No Generic Insulin? Historical Origins of a Modern Problem," New England Journal of Medicine 372, no. 12 (2015): pp. 1171-1175, https://doi.org/10.1056/nejmms1411398.

⁸ Greene and Riggs, "Why Is There No Generic Insulin?"

⁹ "Who Global Benchmarking Tool plus (GBT+) for Evaluation of National ..." (World Health Organization), accessed March 17, 2023, https://www.who.int/ docs/defaultsource/medicines/regulatorysystems/gbt/06_gbt-_rev_vi-_ver_1_ri_ nov_2019.pdf?sfvrsn=ae42d261_ 3.

¹⁰ "Insulin Products and the Cost of Diabetes Treatment" (Congressional Research Service, November 19, 2018), https://sgp.fas.org/crs/misc/IF11026.pdf.

¹¹ Colvin, Geoff. 2021. "Insulin's Deadly Cost: Ultrahigh Prices in the U.S. Mean Many Diabetics Can't Afford the Medication They Need to Survive." Fortune.com, December, N.PAG. https://search-ebscohostcom.byu.idm.oclc.org/ login.aspx?direct=tru e&db=buh&AN=154018329&site=ehostlive&scope=site.

¹² Arthur Allen and Kaiser Health News, "Insulin's High Cost Goes beyond Drugmakers to Industry's Price Mediators," CNN (Cable News Network, March 9, 2023), https://www.cnn.com/2023/03/09/health/ins ulin-cost-khn-partner/ index.html.

13 Colvin, "Insulin's Deadly Cost"

¹⁴ Colvin, "Insulin's Deadly Cost"

¹⁵ Dzintars Gotham, Melissa J Barber, and Andrew Hill, "Production Costs and Potential Prices for Biosimilars of Human Insulin and Insulin Analogues," BMJ Global Health (BMJ Specialist Journals, September 1, 2018), https:// gh.bmj.com/content/3/5/e000850.

¹⁶ Colvin, "Insulin's Deadly Cost"

¹⁷ William T. Cefalu et al., "Insulin Access and Affordability Working Group: Conclusions and Recommendations," Diabetes Care 41, no. 6 (November 2018): pp. 1299-1311, https://doi.org/10.2337/dci18-0019.

¹⁸ Baylee F. Bakkila, Sanjay Basu, and Kasia J. Lipska, "Catastrophic Spending on Insulin in the United States, 2017–18," Health Affairs
41, no. 7 (January 2022): pp. 1053- 1060, https://doi.org/10.1377/ hlthaff.2021.01788.

¹⁹ Matt McConnell, "If I'm out of Insulin, I'm Going to Die": United States' Lack of Regulation Fuels Crisis of Unaffordable Insulin (New York, NY: Human Rights Watch, 2022).

²⁰ "Hyperglycemia in Diabetes," Mayo Clinic (Mayo Foundation for Medical Education and Research, August 20, 2022), https://www.mayoclinic.org/ diseasesconditions/hyperglycemia/symptomscauses/syc-20373631.

²¹ "Diabetic Ketoacidosis," Mayo Clinic (Mayo Foundation for Medical Education and Research, October 6, 2022), https://www.mayoclinic.org/ diseasesconditions/diabetic-ketoacidosis/symptomscauses/syc-20371551.

²² Richard M Mizelle, "Diabetes, Race, and Amputations," The Lancet 397, no. 10281 (2021): pp. 1256-1257, https://doi.org/10.1016/s0140-6736(21)00724-8.

²³ Mary Caffrey; "Gathering Evidence on Insulin Rationing: Answers and Future Questions," AJMC (MJH Life Sciences), accessed March 18, 2023, https://www.ajmc.com/view/gatheringevidence-on-insulin-rationing-answersandfuture-questions.

²⁴ S. Vincent Rajkumar, "The High Cost of Insulin in the United States: An Urgent Call 5 Moss: Sticker Shock: Why Affordable Access to Insulin is Critical for B Published by BYU ScholarsArchive, 6 to Action," Mayo Clinic Proceedings 95, no. 1 (2020): pp. 22-28, https://doi.org/10.1016/j. mayocp.2019.11.01 3.

²⁵ Mayo Clinic, "Diabetic Ketoacidosis"

²⁶ Mayo Clinic, "Diabetic Ketoacidosis"

27 Andrew W. Mulcahy and Harry H. Liu, "The Astronomical Price of Insulin Hurts American Families," RAND Corporation, January 6, 2021, https://www.rand.org/blog/randreview/2021/01/the-astronomical-priceofinsulin-hurts-american-families.html.

28 Jean Fuglesten Biniek, "Spending on Individuals with Type 1 Diabetes and the Role of Rapidly Increasing Insulin Prices," HCCI, accessed March 18, 2023, https://healthcostinstitute.org/diabetes-andinsulin/spending-onindividuals-with-type1-diabetes-and-the-role-of-rapidlyincreasing-insulinprices.

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