# The Failed Economics of Consumer-Driven Health Plans

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*Consumer-driven health plans ("CDHPs") are now the dominant form of health insurance coverage in the US. CDHPs represent a market-based attempt to control health insurance costs. By requiring a significant outlay of the patient's own money before insurance payments begin, CDHPs try to turn patients into health care consumers. Patients-turned-consumers, so the theory goes, will be more judicious about health spending and will reduce consumption of low-value health care. In response, health care providers will lower their prices to compete for fewer health care dollars. But the CDHP price-lowering theory is flawed. Constructed using an economism framework, CDHPs rely on a microeconomic, partial equilibrium model that overextends the concept of moral hazard and disregards the larger health care economy. This matters. CDHP theory simply ignores the powerful legal structures and system incentives that health care providers exploit to limit competition and drive up prices. In short, CDHPs cannot reduce prices because larger, more powerful profit-driven forces in our health care system out-muscle CDHP's "patient power" approach to price control. This failure leaves patients with CDHPs in a dangerous double bind: they are increasingly burdened by high deductibles yet possess less purchasing power as medical prices keep rising. As a result, many patients with CDHPs suffer medical harm and are plunged into financial ruin.*

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## INTRODUCTION

Consumer-driven health plans ("CDHPs") are quietly pushing Americans toward a national health care calamity. CDHPs, the dominant form of health insurance in the U.S.,[1] impose large annual deductibles — typically thousands of dollars[2] — based on the theory that significant cost-sharing will transform patients into cost-conscious consumers.[3] Patients-turned-consumers, the theory holds, will shop for health care, compare prices, and decrease consumption of unnecessary medical services.[4] In response, health care providers will compete for patients by lowering their prices.[5] But CDHP theory has not matched

[1] *See infra* notes 69–70 and accompanying text.

[2] *See infra* notes 72–75 and accompanying text.

[3] M. Kate Bundorf, *Consumer-Directed Health Plans: A Review of the Evidence*, 83 J. RISK & INS. 9, 9 (2016); *see* Jon R. Gabel, Anthony T. Lo Sasso & Thomas Rice, *Consumer-Driven Health Plans: Are They More than Talk Now?*, 21 HEALTH AFF. W395, W395-96 (2002).

[4] On one point, CDHP advocates are correct: high deductibles reduce consumption of medical care. Indeed, the spending reductions generated by CDHPs are not insubstantial. One estimate predicts that adoption of CDHPs by half of all employers will cut annual health care spending by $57 billion. Amelia M. Haviland, M. Susan Marquis, Roland D. McDevitt & Neeraj Sood, *Growth of Consumer-Directed Health Plans to One-Half of All Employer-Sponsored Insurance Could Save $57 Billion Annually*, 31 HEALTH AFF. 1009, 1010 (2012) [hereinafter *Growth*]. The spending reductions, however, are indiscriminate. Patients reduce both necessary and unnecessary care. *See infra* Part I.C.1.

[5] Competition for consumer demand is often touted as the cure for high health care prices. *See, e.g.*, Regina E. Herzlinger, *Let's Put Consumers in Charge of Health Care*, 80 HARV. BUS. REV. 44, 45 (2002) ("[C]onsumer-driven health care would . . . enabl[e]

reality; CDHPs have not driven down prices. Instead, CDHPs have gnawed away insurance coverage while medical prices have soared. For millions of Americans, the failure of the CDHP theory has led to financial and medical catastrophe.

Insured Americans are drowning in medical debt.[6] The data are startling. While more than 90% of Americans have health insurance,[7] over 137 million U.S. adults now face medical financial hardships.[8] One

providers and patients jointly to create better, cheaper ways to deliver care."); Mike Braun, Opinion, *Health Care Needs Transparency, and President Trump Is Making Progress*, HILL (July 1, 2019, 10:45 AM EDT), https://thehill.com/blogs/congress-blog/healthcare/451115-health-care-needs-transparency-and-president-trump-is-making [https://perma.cc/5S3D-UG3N] ("[W]e can include consumers in the negotiation by giving them some skin in the game - encouraging them to shop around for prices like we do for car insurance and big screen TVs - then competition will do what it does in all other industries: lower prices."); Allan B. Hubbard, Opinion, *The Health of a Nation*, N.Y. TIMES (Apr. 3, 2006), https://www.nytimes.com/2006/04/03/opinion/the-health-of-a-nation.html [https://perma.cc/X4TC-748P] ("Informed consumers could bring down costs throughout the health care industry by choosing only high-value care, making providers raise quality and lower prices to compete for their business . . . ."); George A. Nation III, Opinion, *Three Doses of Competition to Reduce the Soaring Cost of Health Care*, HILL (Mar. 4, 2018, 11:00 AM EST), https://thehill.com/opinion/healthcare/376131-three-doses-of-competition-to-reduce-the-soaring-cost-of-health-care [https://perma.cc/3KHX-MQLR] (arguing that encouraging competition among health care providers for patients will drive down provider prices); Seema Verma, *Competition as the Engine for Lowering Healthcare Costs*, CENTERS FOR MEDICARE & MEDICAID SERVICES BLOG (June 6, 2019), https://www.cms.gov/blog/competition-engine-lowering-healthcare-costs [https://perma.cc/S6BQ-47G9] ("Only a truly free and competitive market will provide patients with more choices that can deliver both lower costs and higher quality."). To be clear, some forms of competition can drive down prices. For example, more competition among large and sophisticated repeat players in the medical marketplace can lead to lower prices. *See, e.g.*, Laurence C. Baker, M. Kate Bundorf, Anne B. Royalty & Zachary Levin, *Physician Practice Competition and Prices Paid by Private Insurers for Office Visits*, 312 JAMA 1653, 1659 (2014) (finding that higher competition among physician practice groups can lead to lower prices paid by private insurance companies to physicians for office visits). CDHPs, on the other hand, look to patients-as-consumers as the mechanism to stimulate competition among providers and drive down prices.

[6] *See* Margot Sanger-Katz, *Even Insured Can Face Crushing Medical Debt, Study Finds*, N.Y. TIMES (Jan. 5, 2016), https://www.nytimes.com/2016/01/06/upshot/lost-jobs-houses-savings-even-insured-often-face-crushing-medical-debt.html [https://perma.cc/7YR4-87T2] (noting that "the majority of people struggling with [medical] bills are insured").

[7] EDWARD R. BERCHICK, JESSICA C. BARNETT & RACHEL D. UPTON, U.S. CENSUS BUREAU, CURRENT POPULATION REPORTS P60-267 (RV), HEALTH INSURANCE COVERAGE IN THE UNITED STATES: 2018, at 3 (2019), https://www.census.gov/content/dam/Census/library/publications/2019/demo/p60-267.pdf [https://perma.cc/6QCT-9BV8].

[8] K. Robin Yabroff, Jingxuan Zhao, Xuesong Han & Zhiyuan Zheng, *Prevalence and Correlates of Medical Financial Hardship in the USA*, 34 J. GEN. INTERNAL MED. 1494, 1496 (2019) (finding that "56.0% of adults reported any medical financial hardship,

in four Americans adults say they or someone in their household had trouble paying their medical bills during the prior year.[9] Indeed, medical debt is the top reason debt collectors contact Americans.[10] And, nearly two-thirds of people who file for bankruptcy cite medical issues as a key contributor to their financial downfall.[11]

Patients facing large deductibles also reduce their use of necessary medical care. According to one study, 43% of insured patients reported that they or a family member delayed or skipped physician-recommended tests or treatments because of high out-of-pocket costs.[12] CDHPs have hit the chronically ill[13] even harder. Three-quarters of patients with chronic conditions who face very high deductibles (at least $3,000 for an individual or $5,000 for a family)[14] report that they skipped or postponed necessary medical care or prescription drugs for

representing 137.1 million adults"). More than half of Americans aged eighteen to sixty-four have problems with medical bills or medical debt, suffer stress about household financed because of medical debt, or forego or delay necessary medical care because they cannot afford it. *Id.* at 1501.

9 LIZ HAMEL, MIRA NORTON, KAREN POLLITZ, LARRY LEVITT, GARY CLAXTON & MOLLYANN BRODIE, THE BURDEN OF MEDICAL DEBT: RESULTS FROM THE KAISER FAMILY FOUNDATION/NEW YORK TIMES MEDICAL BILLS SURVEY 1 (2016), https://www.kff.org/wp-content/uploads/2016/01/8806-the-burden-of-medical-debt-results-from-the-kaiser-family-foundation-new-york-times-medical-bills-survey.pdf [https://perma.cc/FA4U-RTCG] [hereinafter N.Y. TIMES SURVEY].

10 CONSUMER FIN. PROT. BUREAU, CONSUMER EXPERIENCES WITH DEBT COLLECTION: FINDINGS FROM THE CFPB'S SURVEY OF CONSUMER VIEWS ON DEBT 21 (2017), https://files.consumerfinance.gov/f/documents/201701_cfpb_Debt-Collection-Survey-Report.pdf [https://perma.cc/8B4C-6YSG] [hereinafter CONSUMER EXPERIENCES]. More than half of all debt on credit reports is from medical expenses. Michelle Andrews, *Your Credit Score Soon Will Get a Buffer from Medical-Debt Wrecks*, KAISER HEALTH NEWS (July 11, 2017), https://khn.org/news/your-credit-score-soon-will-get-a-buffer-from-medical-debt-wrecks/ [https://perma.cc/28Z5-MNYJ].

11 *See* David U. Himmelstein, Robert M. Lawless, Deborah Thorne, Pamela Foohey & Steffie Woolhandler, *Medical Bankruptcy: Still Common Despite the Affordable Care Act*, 109 AM. J. PUB. HEALTH 431, 432 (2019).

12 *See* HAMEL ET AL., N.Y. TIMES SURVEY, *supra* note 9, at 16.

13 The chronically ill suffer from "a physical or mental health condition that lasts more than one year and causes functional restrictions or requires ongoing monitoring or treatment." CHRISTINE BUTTORFF, TEAGUE RUDER & MELISSA BAUMAN, RAND CORP., MULTIPLE CHRONIC CONDITIONS IN THE UNITED STATES 1 (2017), https://www.rand.org/pubs/tools/TL221.html [https://perma.cc/5622-DNJC]. Chronic conditions include diabetes, hypertension, and mood disorders. *Id.*

14 *See* LIZ HAMEL, CAILEY MUÑANA & MOLLYANN BRODIE, KAISER FAMILY FOUNDATION/LA TIMES SURVEY OF ADULTS WITH EMPLOYER-SPONSORED HEALTH INSURANCE 1 (2019), http://files.kff.org/attachment/Report-KFF-LA-Times-Survey-of-Adults-with-Employer-Sponsored-Health-Insurance [https://perma.cc/JJ2G-9KYB] [hereinafter L.A. TIMES SURVEY] (defining "highest deductibles").

cost reasons over the previous year.[15] Moreover, the toxicity of medical debt is so profound that more than three-quarters of insured families burdened by medical debt cut back spending on food, clothes, housing, and other household essentials.[16] Physicians have also expressed concern that patients subject to high deductibles and other forms of cost-sharing will "cut corners in ways that may affect their health and well-being."[17]

Criticism of CDHPs is not new. Since their inception in 2003,[18] CDHPs have drawn sharp condemnation from scholars and health policy experts. These critiques largely focused on the functional deficiencies of CDHPs. Some critics noted that patients lacked the price information necessary to shop for medical care.[19] Others found little evidence patients actually shopped for medical services, even when prices were available.[20] Some also complained that patients with CDHPs indiscriminately curtailed medical care, cutting back on both necessary and unnecessary services.[21] Despite these criticisms, sales of CDHPs

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15 *See id.* at 2.

16 *See* HAMEL ET AL., N.Y. TIMES SURVEY, *supra* note 9, at 15.

17 Peter A. Ubel, Amy P. Abernethy & S. Yousuf Zafar, *Full Disclosure — Out-of-Pocket Costs as Side Effects*, 369 NEW ENG. J. MED. 1484, 1485 (2013).

18 *See infra* notes 65–67 and accompanying text.

19 *See, e.g.*, TIMOTHY STOLTZFUS JOST, HEALTH CARE AT RISK 143-44 (2007) (finding that consumers are not provided with enough information regarding medical costs and quality); U.S. GOV'T ACCOUNTABILITY OFFICE, GAO-11-791, HEALTH CARE PRICE TRANSPARENCY: MEANINGFUL PRICE INFORMATION IS DIFFICULT FOR CONSUMERS TO OBTAIN PRIOR TO RECEIVING CARE (2011), http://www.gao.gov/new.items/d11791.pdf [https://perma.cc/9RLK-X972] (noting that patients lack access to price information for medical services).

20 *See, e.g.*, Katherine M. Harris, *How Do Patients Choose Physicians? Evidence from a National Survey of Enrollees in Employment-Related Health Plans*, 38 HEALTH SERVICES RES. 711, 729 (2003) (finding that patients are passive consumers of physician services); Ateev Mehrotra, Katie M. Dean, Anna D. Sinaiko & Neeraj Sood, *Americans Support Price Shopping for Health Care, but Few Actually Seek Out Price Information*, 36 HEALTH AFF. 1392, 1392 (2017) ("Only 13 percent of survey respondents who had some out-of-pocket [medical] spending . . . sought [price] information . . . before receiving care, and just 3 percent compared costs across providers before receiving care."); Michael Chernew, Zack Cooper, Eugene Larsen-Hallock & Fiona Scott Morton, *Are Health Care Services Shoppable? Evidence from the Consumption of Lower-Limb MRI Scans* 1 (Nat'l Bureau of Econ. Research, Working Paper No. 24869, 2018) ("Despite significant out-of-pocket costs and little variation in quality, patients often received care in high-priced locations when lower priced options were available.").

21 *See, e.g.*, TIFFANY CHAN & NANCY TURNBULL, ASSESSMENT OF THE IMPACT OF HIGH-DEDUCTIBLE HEALTH PLANS ON PATIENT HEALTH AND THE FINANCIAL IMPACT ON MEDICAL PRACTICES 10 (2017), http://www.massmed.org/highdeductible/ [https://perma.cc/MBY3-DBZD] ("[T]here is a substantial amount of evidence that, when faced with increased cost-sharing, consumers often indiscriminately reduce their use of health cares,

have surged — along with the size of deductibles. Today, CDHPs not only dominate health insurance, but many CDHP policies also carry extremely large deductibles — some exceeding $15,000.[22] Advocates of CDHPs have responded to these criticisms by arguing for more price transparency and improved shoppability of medical services.[23] Consumer power, they argue, is the key to bringing down prices. As U.S. Senator Mike Braun noted in a recent op-ed arguing for increased medical price transparency, "If we can . . . [encourage health care consumers] to shop around for prices like we do for car insurance and big screen TVs — then competition will do what it does in all other industries: lower prices."[24]

This Article offers a new critique of CDHPs. Rather than focusing on their functional shortcomings, this Article attacks the theoretical deficiencies of CDHPs. In short, CDHPs have not only failed in practice, they also fail in theory. The CDHP model simply does not account for the nature and complexity of health care markets, existing legal structures, and information asymmetries. This failure leaves patients with CDHPs in a dangerous double bind: they are increasingly burdened by high deductibles yet possess less purchasing power as medical prices keep rising.

The defect of CDHP theory stems from two factors. First, the theory overextends the economic concept of moral hazard. The central problem plaguing health insurance, according to CDHP theory, is moral hazard — the idea that health insurance can cause patients to use too much medical care. Although the notion of moral hazard has existed

including reducing use of high-value care."); Rajender Agarwal, Olena Mazurenko & Nir Menachemi, *High-Deductible Health Plans Reduce Health Care Cost and Utilization, Including Use of Needed Preventive Services*, 36 HEALTH AFF. 1762, 1765 (2017) (providing summary of studies showing CDHP enrollees reduce appropriate and inappropriate medical care); Amelia M. Haviland, Matthew D. Eisenberg, Ateev Mehrotra, Peter J. Huckfeldt & Neeraj Sood, *Do "Consumer-Directed" Health Plans Bend the Cost Curve Over Time?*, 46 J. HEALTH ECON. 33, 34 (2016) ("More recent observational studies have . . . provided evidence that CDHP enrollees reduce some necessary preventive and chronic care.").

[22] Aimee Picchi, *Higher Health Insurance Deductibles a Sickening Trend for Americans*, CBS NEWS (June 13, 2019, 3:34 PM), https://www.cbsnews.com/news/high-health-insurance-deductibles-a-sickening-trend-thats-causing-financial-hardship/ [https://perma.cc/F332-CPTK] ("Some insurance company plans now carry deductibles of more than $7,000 for an individual and $15,000 for families.").

[23] *See, e.g.*, Braun, *supra* note 5 (calling for transparency in the U.S. health care market).

[24] *Id.*

since the 1800s,[25] economist Mark Pauly reframed the concept in his seminal 1968 article, *The Economics of Moral Hazard: Comment*.[26] Pauly was responding to Nobel laureate Kenneth Arrow's groundbreaking 1963 article *Uncertainty and the Welfare Economics of Medical Care*.[27] Arrow's article considered why the market did not provide complete health insurance coverage. The problem, as Arrow saw it, was a lack of information and market uncertainty. Insurers responded to these market failures by reducing coverage to limit their own risk.[28] In response, Pauly argued that full coverage may not be optimal because of moral hazard. Health insurance, Pauly argued, causes a rational, but welfare-decreasing overconsumption of "free" medical care.[29] Since a patient's demand for medical care is to some extent discretionary, a fully insured patient will overconsume medical care because he or she is not sensitive to the price of medical care. In other words, full insurance acts like a subsidy.[30] The solution, according to Pauly, is to realign patients' purchasing incentives through cost-sharing mechanisms, such as deductibles.[31] Shifting medical costs back to patients will, Pauly argued, reduce moral hazard by driving down consumption of low-value medical care.[32] This, in turn, will reduce the aggregate cost of coverage and lower premiums.[33]

Pauly's theory of moral hazard focuses on the efficient consumption of medical care when a patient is insured; it does not speak to the issue of high medical prices and does not purport to apply to all types of medical care. Nevertheless, in the 1990s, pro-market pressure groups and neoliberal policy advocates incorporated Pauly's conception of

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[25] Tom Baker, *On the Genealogy of Moral Hazard*, 75 TEX. L. REV. 237, 250 (1996) ("For nineteenth-century insurers, moral hazard was a label applied both to people and situations.").

[26] Mark V. Pauly, *The Economics of Moral Hazard: Comment*, 58 AM. ECON. REV. 531 (1968).

[27] Kenneth J. Arrow, *Uncertainty and the Welfare Economics of Medical Care*, 53 AM. ECON. REV. 941 (1963). Arrow's article is viewed as the beginning of modern health economics. Victor Fuchs, *Kenneth Arrow's Legacy and the Article That Launched a Thousand Studies*, HEALTH AFF. BLOG (Mar. 8, 2017), https://www.healthaffairs.org/do/10.1377/hblog20170308.059100/full/ [https://perma.cc/X99G-XD6J] ("In a single article published by the *American Economic Review* in 1963, he launched modern health economics.").

[28] *See infra* notes 163–70 and accompanying text.

[29] *See* Pauly, *supra* note 26, at 535-36.

[30] *See* Joseph P. Newhouse & Vincent Taylor, *The Subsidy Problem in Hospital Insurance: A Proposal*, 43 J. BUS. 452, 452 (1970).

[31] *See* Pauly, *supra* note 26, at 535-36.

[32] *See id.*

[33] *See id.* at 534-36.

moral hazard into their theory of CDHPs[34] using an analytic framework called economism. Their use of the economism framework leads to the second — and fatal — defect of the CDHP theory.

Economism is the inapt use of microeconomic concepts to promote simple policy solutions to complex societal problems.[35] In short, economism collapses economic theory into a dogmatic approach to policymaking, one that skews policy recommendations toward limited government, competitive markets, and heightened consumer responsibility. Using the economism framework, advocates argued that CDHPs would lower health insurance premiums by giving patients "more skin in the game."[36] By requiring a significant outlay of the patient's own money before insurance payments begin, CDHPs would, so the argument goes, turn patients into cost-conscious consumers who will reduce consumption of unnecessary care and drive down medical prices.

The power of economism rests on its simple solutions and the clout of economics. Economism produces policy solutions that seem to reflect the "science" of economics, but only in a simplistic version that can be easily understood and effortlessly explained. Since economism

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[34] *See* JOST, *supra* note 19, at 30-34.

[35] JAMES KWAK, ECONOMISM: BAD ECONOMICS AND THE RISE OF INEQUALITY 6-8 (2017) (noting that while the term "economism" is "generally used to criticize someone for overvaluing economics" he uses the term to refer to the use of simplistic, textbook "Economics 101" principles as accurate descriptions of empirical reality). According to economist-turned-journalist Noah Smith, the phenomenon reflects the flawed application of concepts taught in "Economics 101" classes:

> We all know basically what 101ism says. Markets are efficient. Firms are competitive. Partial-equilibrium supply and demand describes most things. Demand curves slope down and supply curves slope up. Only one curve shifts at a time. No curve is particularly inelastic or elastic; all are somewhere in the middle (straight lines with slopes of 1 and -1 on a blackboard). Etc.
>
> Note that 101 classes don't necessarily teach that these things are true! . . .
>
> But for some reason, people seem to come away from 101 classes thinking that the cases that are the easiest to draw on the board are - God only knows why - the benchmark cases.

Noah Smith, *101ism*, NOAHPINION (Jan. 21, 2016), http://noahpinionblog.blogspot.com/2016/01/101ism.html [https://perma.cc/7XBA-YPE3].

[36] *See* KWAK, *supra* note 35, at 112-13 (quoting John F. Cogan, R. Glenn Hubbard & Daniel P. Kessler, Opinion, *Healthy, Wealthy and Wise*, WALL ST. J. (May 4, 2004, 12:01 AM ET), https://www.wsj.com/articles/SB108362681322500884 [https://perma.cc/27DR-XZVE] ("Higher copayments will give consumers more 'skin in the game,' making them more cost-conscious and more willing to take greater control of health-care decisions.")).

produces policy solutions that are propelled by ideology rather than empirical analysis, debates about economism-driven policies tend to be more rhetorical than analytical.[37] CDHP advocates have forcefully responded to prior criticism by arguing for more "transparency" and "competition" in health care markets. In a rare instance of agreement among the left and right,[38] the Obama and Trump administrations, as well as state governments, have promoted medical price transparency and health care shoppability as price cost control strategies.[39]

But increased price transparency and medical shoppability will not — *cannot* — drive down prices. CDHPs fail because they represent economism at its worst: an unflinching reliance on a simplistic partial equilibrium model that oversimplifies the price problem and conceptualizes the health care economy too narrowly. In short, CDHP theory flops because it identifies the wrong problem and specifies the wrong solution. Even if applied as their advocates intend, CDHPs simply do not work as a means to control medical prices.

This Article advances three core claims. First, CDHPs cannot reduce medical prices because larger, more powerful profit-driven forces in our health care system out-muscle CDHP's "patient power" approach to price control. Although CDHPs reduce overall spending by reducing demand, the *supply* of medical care is not driven by patient choice. Even if patients are rationed by price (which they are, through high

[37] *See id.* at 11 (noting that one of economism's strengths is its ability "to pass as abstract science rather than rhetorical device").

[38] *See* Joel White, *Promoting Transparency and Clear Choices in Health Care*, HEALTH AFF. BLOG (June 9, 2015), https://www.healthaffairs.org/do/10.1377/hblog20150609.048337/full/ [https://perma.cc/9EMP-8R4F] ("Politically, both Democrats and Republicans see value in transparency. . . . Both parties seem to want an empowered consumer.").

[39] On November 15, 2019, the Trump administration issued two rules, one final and one proposed, to increase price transparency in health care. *See* Medicare and Medicaid Programs: CY 2020 Hospital Outpatient PPS Policy Changes and Payment Rates and Ambulatory Surgical Center Payment System Policy Changes and Payment Rates. Price Transparency Requirements for Hospitals to Make Standard Charges Public, 84 Fed. Reg. 65,524 (Nov. 27, 2019) (to be codified at 45 C.F.R. pt. 180) (effective on Jan. 1, 2021); Transparency in Coverage, 84 Fed. Reg. 65,464 (proposed Nov. 27, 2019) (to be codified at 45 C.F.R. pts. 147 and 158). The Obama administration released the list prices charged by hospitals participating in Medicare for common hospital services. *See* Jeffrey Young & Chris Kirkham, *Hospital Prices No Longer Secret as New Data Reveals Bewildering System, Staggering Cost Differences*, HUFFPOST (May 8, 2013, 12:00 AM ET), https://www.huffpost.com/entry/hospital-prices-cost-differences_n_3232678?1367985666= (last updated Dec. 6, 2017) [https://perma.cc/D3GD-BGZG]. A majority of states have enacted laws that mandate price transparency tools. Eli Y. Adashi & Kevin S. Tang, *Consumer-Directed Health Care: The Uncertain Future of Price Transparency Initiatives*, 132 AM. J. MED. 783, 783 (2019).

deductibles), that rationing does not induce price-reducing competition among sellers, alter existing legal structures that allow medical providers to charge exorbitant prices, or tamp down price-raising initiatives in the medical economy.

Second, the theory behind CDHPs relies on a simple economic model, framed by economism, that overextends Pauly's moral hazard theory. The CDHP theory is based on the competitive market model, which examines the supply and demand in the medical market. The power of this model is it's "presumed descriptive power" and "its implications for economic efficiency."[40] To the extent that the actual market is fundamentally different from the competitive model, the model cannot serve as a basis for social policy.[41] That's the case with CDHPs. Even if the conditions for the theory are met (such as high cost sharing, patient access to medical prices, and patients actively shopping for lower prices), CDHPs still will not achieve their promised results.

Third, CDHP theory recklessly fails to consider the variability of patient conditions. At any given time, some patients only suffer from temporary, mild illnesses or conditions, such as the common cold. Other patients suffer from severe and persistent illnesses or conditions, such as Type 1 diabetes, asthma, or cancer. Yet, there is no support, either theoretical or empirical, for the use of CDHPs by patients with severe, chronic, or perilous health problems.[42] Indeed, evidence suggests that these patients face significant financial and medical risk in a CDHP-centric health insurance market. Yet, CDHPs are now the dominant form of coverage despite the fact that 60% of American adults suffer from at least one chronic condition and 42% have more than one chronic condition.[43]

Before we proceed, a clarification is in order. I am not suggesting that economics should play no role in health policy. To the contrary, sophisticated economic analysis offers important insights about market behavior and how health markets can be improved. Nobel laureate economists, including Kenneth Arrow, George Akerlof, and Joseph Stiglitz, as well as contemporary health economists, including Uwe Reinhardt, Katherine Baicker, Jonathan Gruber, and Amy Finkelstein,

[40] Arrow, *supra* note 27, at 942.

[41] As Kenneth Arrow noted, "[A] certain amount of lack of realism in the assumptions of a model is no argument against its value. But the price-quantity implications of the competitive model for pricing are not easy to derive without major . . . econometric efforts." *Id.* at 944.

[42] Pauly's model was intended to cover routine and predictable care, such as office visits, not catastrophic or chronic illnesses. *See infra* note 204 and accompanying text.

[43] *See* BUTTORFF ET AL., *supra* note 13, at 6.

among many others, have provided vital economic analysis that continues to shape health policy.[44] Rather, this Article's critique focuses on economism-driven policy solutions, the "fable-like" narratives of simplistic economic analysis that are passed off as "abstract science rather than rhetorical device."[45]

Much is at stake with respect to the terrain covered by this Article. The normative implications of CDHPs raise both theoretical and pragmatic questions about health insurance markets, social risk-sharing, and market-based policy solutions. In offering this critique of CDHPs theory, my hope is that this Article will challenge the dominant way that deductibles are framed, contest the view that cost-sharing is an appropriate method to control medical prices, illustrate the damage CDHPs have caused, and foster a dialog about how we can shift away from large deductibles.

This Article proceeds in five parts. Part I begins with an account of the rapid expansion of CDHPs, the growth of deductibles, and the medical and financial damage caused by high deductibles. Medical debt is now a common and disturbing side effect of CDHPs.[46] Patients plagued by medical debt often forego necessary medical treatment. They skimp on food, clothing, and other necessities, which may worsen their condition.[47] Medical debt has even prompted the rise of social media charity, such as GoFundMe accounts and medical debt forgiveness organizations.[48] It has also spurred aggressive collection by medical

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[44] *See, e.g.*, George A. Akerlof, *The Market for "Lemons": Quality Uncertainty and the Market Mechanism*, 84 Q.J. ECON. 488 (1970) (examining how information affects economic decisions); Gerard F. Anderson, Uwe E. Reinhardt, Peter S. Hussey & Varduhi Petrosyan, *It's the Prices, Stupid: Why the United States Is So Different from Other Countries*, 22 HEALTH AFF. 89 (2003) (finding that the United States spends more on medical care than any other country); Arrow, *supra* note 27 (considering why the market did not provide complete health insurance coverage); Katherine Baicker, Sarah L. Taubman, Heidi L. Allen, Mira Bernstein, Jonathan H. Gruber, Joseph P. Newhouse, Eric C. Schneider, Bill J. Wright, Alan M. Zaslavsky & Amy N. Finkelstein, *The Oregon Experiment — Effects of Medicaid on Clinical Outcomes*, 368 NEW ENG. J. MED. 1713 (2013) (finding that Medicaid coverage generated no significant improvements in some health outcomes but did increase use of health care services, raise rates of diabetes detection and management, lower rates of depression, and reduce financial strain); Michael Rothschild & Joseph Stiglitz, *Equilibrium in Competitive Insurance Markets: An Essay on the Economics of Imperfect Information*, 90 Q.J. ECON. 629 (1976) (analyzing the effects of asymmetric information in a competitive insurance market).

[45] KWAK, *supra* note 35, at 11, 15.

[46] *See infra* notes 94–112 and accompanying text.

[47] *See infra* notes 107–11 and accompanying text.

[48] *See infra* notes 118–29 and accompanying text.

creditors, such as hospitals.[49] Part II focusses on the concept of moral hazard and changing role of the deductible in health insurance. After a brief history of the health insurance deductible,[50] Part II shifts to Mark Pauly's theory of moral hazard, lays out the theoretical foundation for CDHPs,[51] and discusses the limits of Pauly's model.[52] Part III turns to economism and the development of CDHPs. Arising following the collapse of managed care in the 1990s, CDHPs were championed by free-market advocates who looked to Pauly's model as basis to shape health policy.[53] Part IV demonstrates the spectacular failure of CDHP theory by providing a range of examples of how medical providers and insurers take actions to increase their prices regardless of patient demand, and in some cases, because of it.[54] Finally, Part V discusses the possibility of — and obstacles to — a post-CDHP era by addressing several important questions, including whether we are caught in a CDHP trap — a quagmire from which escape may be very difficult.[55]

## I. CDHPS AND THE THINNING OF HEALTH INSURANCE

Health insurance is supposed to protect a patient's finances and provide access to medical care. While CDHPs do provide some insurance, they have dramatically thinned coverage. Instead of protecting a patient's finances, CDHPs can saddle patients with crippling medical debt. Rather than providing access to care, CDHPs can impede medical care. This Part provides some brief but necessary background on the growing harms of CDHPs and demonstrates why the theory of CDHPs requires a new look. Section A details the brief history of CDHPs, explains the rapid expansion of CDHPs over the last decade, and shows that CDHPs are now our dominant form of health insurance. Section B pivots to outline the second growth aspect of CDHPs: the size of the annual deductible. Annual deductibles have quickly spiraled into thousands of dollars. Some now exceed $15,000 per year.[56] Finally, Section C describes the extent to which CDHPs have pushed Americans towards greater financial risk, driven patients into debt, curbed

[49] *See infra* notes 116–17 and accompanying text.
[50] *See infra* notes 135–61 and accompanying text.
[51] *See infra* notes 171–99 and accompanying text.
[52] *See infra* notes 200–09 and accompanying text.
[53] *See infra* notes 240–64 and accompanying text.
[54] *See infra* notes 286–351 and accompanying text.
[55] *See infra* notes 360–71 and accompanying text.
[56] *See* Picchi, *supra* note 22.

necessary medical care, and encouraged new forms of medical debt charity.

### *A. CDHPs are the New Normal*

CDHPs were rare a decade ago. Now, they dominate health insurance, in part, due to a change in tax policy.[57] CDHPs are not a type of health insurance plan, *per se*. Health insurance plans, such as preferred provider organization plans ("PPOs") and health maintenance organization plans ("HMOs"), are typically distinguished by their provider network.[58] Any type of plan can be a CDHP,[59] as long as it includes a deductible large enough to be paired with a tax-advantaged account, such as health savings accounts ("HSA") or a health reimbursement arrangements ("HRA"), under IRS rules.[60] To qualify as a CDHP in 2021, a plan must have a minimum annual deductible of $1,400 for individual coverage or $2,800 for family coverage.[61] The federal limit on annual cost sharing (including deductibles, copayments, and coinsurance) is $8,550 for single plans and $17,100 for family plans, and sets the cap for deductibles.[62] Thus, a CDHP is any

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[57] *See* Amy B. Monahan, *The Promise and Peril of Ownership Society Health Care Policy*, 80 TUL. L. REV. 777, 791-800 (2006) (detailing development of tax laws for health savings accounts that support CDHPs).

[58] The four most common types of plans are health maintenance organizations, preferred provider organizations, point-of-service ("POS"), and traditional indemnity plans (also called fee-for-service plans). *See* MICHAEL A. MORRISEY, HEALTH INSURANCE 17-18 (2d ed. 2014).

[59] *See* KAISER FAMILY FOUND., EMPLOYER HEALTH BENEFITS: 2019 ANNUAL SURVEY 139 (2019), http://files.kff.org/attachment/Report-Employer-Health-Benefits-Annual-Survey-2019 [https://perma.cc/3ALP-RBQD] [hereinafter KAISER EMPLOYER BENEFITS 2019] ("The survey treats [CDHPs] . . . as a distinct plan . . . even if the plan would otherwise be considered a PPO, HMO, POS plan, or conventional health plan.").

[60] *See* RACHEL DOLAN, HEALTH POLICY BRIEF: HIGH-DEDUCTIBLE HEALTH PLANS 1-2 (2016). Health savings accounts are savings accounts owned by the employee or the insured that can be used to pay for medical expenses not covered by a high deductible health plan. A health reimbursement account is an employer-owned account that employees can draw from to pay medical expenses are not covered by the health insurance plan. Although unused funds can roll over from one year to the next, the employer owns the health reimbursement account and any balance is typically forfeited when an employee changes his job. Contributions to either type of account are not subject to income tax. Haviland et al., *Growth*, *supra* note 4, at 1014 n.1.

[61] Rev. Proc. 2020-32, 2020-24 I.R.B. 930.

[62] Patient Protection and Affordable Care Act; HHS Notice of Benefit and Payment Parameters for 2021; Notice Requirement for Non-Federal Governmental Plans, 85 Fed. Reg. 29,164, 29,166 (May 14, 2020) (to be codified at 45 C.F.R. pts. 146, 149, 155, 156, and 158). Every year the federal government establishes two limits for maximum out-of-pocket expenses for health plans. HHS sets an annual out-of-pocket limit for non-

health insurance plan with a deductible between $1,400 and $8,550 for an individual, or $2,800 to $17,100 for a family. There is, however, no requirement that insureds with CDHPs have or use the HSA or HRA savings accounts for which the plans are qualified. Indeed, most CDHPs either do not have these savings accounts or have insufficiently funded savings accounts.[63] For this reason, all plans with deductibles high enough to the meet the minimum IRS requirement are generally considered to be CDHPs.[64]

While the moral hazard theory underlying CDHPs dates back to the 1960s,[65] CDHPs were made possible by federal legislation in 2003.[66] The 2003 law was designed to encourage employers to try high-deductible plans as a means to make patients more price-conscious when buying medical care.[67] Initially, CDHP take-up was slow. Only 1% of employees used CDHPs in 2005.[68] Over the next decade-and-a-half, however, use of CDHPs exploded. A large annual deductible is now commonplace in American health care. By 2018, nearly half of all adults under sixty-five were in CDHPs.[69] In the individual health insurance

grandfathered health plans sold under the ACA. *See id.* at 29,229. The IRS sets limits for plans to qualify as an HSA-compatible high deductible health plan. *See* 2020-24 I.R.B. 930. The IRS applies lower out-of-pocket maximums: $7,000 for single plans and $14,000 for family plans. *Id.*

[63] *See infra* notes 97–98 and accompanying text.

[64] *See* Melinda Beeuwkes Buntin, Cheryl Damberg, Amelia Haviland, Kanika Kapur, Nicole Lurie, Roland McDevitt & M. Susan Marquis, *Consumer-Directed Health Care: Early Evidence About Effects on Cost and Quality*, 25 HEALTH AFF. w516, w517 (2006). This point is subject to debate among some CDHP advocates, who insist that only plans with accounts are CDHPs. *See, e.g.*, John C. Goodman, *What Is Consumer-Directed Health Care?*, 25 HEALTH AFF. w540, w541 (2006) ("[V]irtually all CDHC advocates endorse individual self-insurance through a funded account.").

[65] *See infra* Part II.B.

[66] The Medicare Modernization Act of 2003 authorized CDHPs by allowing a high-deductible health plan to be coupled with a Health Savings Account or Health Reimbursement Account. *See* Anne K. Gauthier & Carolyn M. Clancy, *Consumer-Driven Health Care — Beyond Rhetoric with Research and Experience*, 39 HEALTH SERVICES RES. 1049, 1049 (2004).

[67] *See* James C. Robinson & Paul B. Ginsburg, *Consumer-Driven Health Care: Promise and Performance*, 28 HEALTH AFF. w272, w274 (2009).

[68] *See* Sara R. Collins, *Consumer-Driven Health Care: Why It Won't Solve What Ails the United States Health System*, 28 J. LEGAL MED. 53, 56 (2007) (citing the EBRI/Commonwealth Fund 2005 Consumerism in Health Care Survey to the same effect); Todd Sloane, *Consumer-Driven Health Care: But Nobody Knows the Rules of the Road*, 28 J. LEGAL MED. 79, 82 (2007) ("Only 1% of employees took up employers' offers of consumer-driven health plans in 2005.").

[69] *See* ROBIN A. COHEN, EMILY P. TERLIZZI & MICHAEL E. MARTINEZ, HEALTH INSURANCE COVERAGE: EARLY RELEASE OF ESTIMATES FROM THE NATIONAL HEALTH INTERVIEW SURVEY, 2018, at 6 (2019), https://www.cdc.gov/nchs/data/nhis/earlyrelease/

market, nearly 90% of Affordable Care Act marketplace enrollees have CDHPs.[70]

### B. *The Growth of Deductibles*

CDHPs have not only grown in number, their deductibles have also swelled. Millions of Americans must pay thousands of dollars out-of-pocket every year before their health insurance begins to cover their medical costs. Over the last decade, CDHP deductibles have grown faster than median income and inflation.[71] The average annual deductible for employer-based CDHPs is now roughly $2,500 for single coverage,[72] a 66% increase since 2007.[73] For family coverage, the average CDHP deductible is double that, about $5,000 per year.[74] In the individual insurance market, annual deductibles are substantially higher: $4,364 for single coverage and $8,439 for family coverage.[75]

insur201905.pdf [https://perma.cc/AB5Z-VDET]; ROBIN A. COHEN, EMILY P. ZAMMITTI & MICHAEL E. MARTINEZ, HEALTH INSURANCE COVERAGE: EARLY RELEASE OF ESTIMATES FROM THE NATIONAL HEALTH INTERVIEW SURVEY, 2017, at 6 (2018), https://www.cdc.gov/nchs/data/nhis/earlyrelease/insur201805.pdf [https://perma.cc/J8BV-2NRJ].

[70] *See* DOLAN, *supra* note 60, at 1. Some of this switching can probably be attributed to adverse selection. If someone knows they are healthy and will be unlikely to use health insurance, they will prefer a higher deductible and lower premiums. As the healthier people leave the low-deductible plans, those remaining are increasingly the sickest; premiums for those who stay will go up, leading to more flight to the higher-deductible plans that are not just cheaper because they have deductibles, but because the people they attract are healthier. For a discussion of this type of adverse selection, see Thomas C. Buchmueller, *Does a Fixed-Dollar Premium Contribution Lower Spending?*, 17 HEALTH AFF. 228, 228-29 (1998); Thomas C. Buchmueller & Paul J. Feldstein, *The Effect of Price on Switching Among Health Plans*, 16 J. HEALTH ECON. 231, 231 (1997); David M. Cutler & Sarah J. Reber, *Paying for Health Insurance: The Trade-Off Between Competition and Adverse Selection*, 113 Q.J. ECON. 433, 433 (1998).

[71] *See* SARA R. COLLINS, DAVID C. RADLEY & JESSE C. BAUMGARTNER, TRENDS IN EMPLOYER HEALTH CARE COVERAGE, 2008–2018: HIGHER COSTS FOR WORKERS AND THEIR FAMILIES 6 (2019), https://www.commonwealthfund.org/sites/default/files/2019-11/Collins_state_premium_trends_2008_2018_db_1.pdf [https://perma.cc/KEG2-9SHL] [hereinafter TRENDS]. The average general deductible for family coverage in employer plans grew 162% from 2009 to 2019. *See* KAISER EMPLOYER BENEFITS 2019, *supra* note 59, at 113. These general deductibles now amount to almost 5% of personal income. *See* COLLINS ET AL., TRENDS, *supra*, at 6.

[72] *See* KAISER EMPLOYER BENEFITS 2019, *supra* note 59, at 147 (explaining that costs are $2,583 for CDHPs with HRAs and $2,476 for HSA-qualified CDHPs).

[73] The single deductible in 2007 was $1729. *Id.* at 148 fig.8.15.

[74] *See id.* at 147.

[75] *See How Much Does Individual Health Insurance Cost?*, EHEALTH, https://www.ehealthinsurance.com/resources/individual-and-family/how-much-does-individual-health-insurance-cost (last updated October 6, 2020) [https://perma.cc/V55D-UPL9] (2020 figures).

Some CDHPs have annual deductibles that approach the federal limit on annual cost sharing, exceeding $7,000 for single plans and $15,000 for family plans.[76]

### *C. The Harms of CDHPs*

The spread of CDHPs and the growth of deductibles have combined to cause two types of harm: reduced use of necessary medical care and financial damage.

#### 1. Reduced Medical Care

CDHPs have caused many Americans, especially the chronically ill, to forego medical care There is strong evidence that patients facing large deductibles reduce their use of necessary medical care. According to one study, 43% of insured patients reported that they delayed or skipped physician-recommended tests or treatment because of high out-of-pocket costs.[77] Among patients with chronic conditions (such as hypertension, asthma, a serious mental health condition, or diabetes) with large deductibles, 75% report skipping or postponing some type of care.[78] Research also shows that patients with other serious conditions, such as cancer,[79] epilepsy,[80] arthritis,[81] and multiple sclerosis[82] also delay care or skimp on vital medications when they are required to pay more out of pocket. Indeed, the toxicity of medical debt has become so profound that some physicians argue that out-of-pocket spending, such

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76 *See* Picchi, *supra* note 22 (noting that the Affordable Care Act has a max limit of $7,900 for individual plans and $15,800 for family plans).

77 *See* HAMEL ET AL., N.Y. TIMES SURVEY, *supra* note 9, at 16.

78 *See* HAMEL ET AL., L.A. TIMES SURVEY, *supra* note 14, at 17.

79 *See* J. Frank Wharam, Fang Zhang, Christine Y. Lu, Anita K. Wagner, Larissa Nekhlydov, Craig C. Earle, Stephen B. Soumerai & Dennis Ross-Degnan, *Breast Cancer Diagnosis and Treatment After High-Deductible Insurance Enrollment*, 36 J. CLINICAL ONCOLOGY 1121, 1121 (2018).

80 Nina R. Joyce, Jesse Fishman, Sarah Green, David M. Labiner, Imane Wild & David C. Grabowski, *Cost Sharing for Antiepileptic Drugs: Medication Utilization and Health Plan Costs*, 26 AM. J. MANAGED CARE e183, e184 (2018).

81 Sari Hopson, Kim Saverno, Larry Z. Liu, Ahmad AL-Sabbagh, John Orazem, Mary E. Costantino & Margaret K. Pasquale, *Impact of Out-of-Pocket Costs on Prescription Fills Among New Initiators of Biologic Therapies for Rheumatoid Arthritis*, 22 J. MANAGED CARE & SPECIALTY PHARMACY 122, 122 (2016).

82 Liisa Palmer, Safiya Abouzaid, Nianwen Shi, Robert Fowler, Greg Lenhart, Homa Dastani & Edward Kim, *Impact of Patient Cost Sharing on Multiple Sclerosis Treatment*, 4 AM. J. PHARMACY BENEFITS SP28, SP28 (2012).

as high deductibles, should be discussed with patients when determining treatment options.[83]

2. Financial Harms

CDHPs have also produced greater financial risk and a surge in medical debt. In response to the rise of medical debt, some medical providers have become aggressive debt collectors. Meanwhile, new forms of social charity have sprung up to address the growing problem of medical debt.

*a. Greater Financial Risk*

CDHPs have put Americans at greater financial risk. Given changes to the American economy and political ideology over the last several decades, particularly with respect to employment, retirement, and health care security, American families are subject to greater financial insecurity than previous generations.[84] CDHPs add to this risk.[85] While the number of uninsured Americans has decreased over the last decade,[86] more Americans are underinsured. Underinsured is often defined by those whose out-of-pocket costs or deductible comprise 5 to 10% of their income.[87] These individuals find it more difficult to cover their medical bills, which often forces them into debt.

Since 2010, the number of underinsured Americans has steadily climbed, increasing from about 29 million to 44 million.[88] Since deductibles are typically higher in the individual market, underinsurance is an especially significant problem there. Forty-two

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[83] *See* Ubel et al., *supra* note 17, at 1484.

[84] *See* JACOB S. HACKER, THE GREAT RISK SHIFT 1-2 (2006) (discussing how American families suffer from greater financial risk than in the past).

[85] *See id.* at 153 (noting that high deductible plans with health savings accounts would "make the increasingly risky world of private health insurance even more fragmented and frightening").

[86] The percentage of uninsured Americans aged nineteen to sixty-four decreased from 20% in 2010 to 12% in 2018. *See* SARA R. COLLINS, HERMAN K. BHUPAL & MICHELLE M. DOTY, HEALTH INSURANCE COVERAGE EIGHT YEARS AFTER THE ACA: FEWER UNINSURED AMERICANS AND SHORTER COVERAGE GAPS, BUT MORE UNDERINSURED 21 tbl.3 (2019), https://www.commonwealthfund.org/sites/default/files/2019-02/Collins_hlt_ins_coverage_8_years_after_ACA_2018_biennial_survey_sb.pdf [https://perma.cc/8SGP-WTWT] [hereinafter HEALTH INSURANCE COVERAGE].

[87] The exact characteristics of the underinsured are difficult to identify because a patient's diagnosis determines the adequacy of her health insurance. Emily Friedman, *The Uninsured: From Dilemma to Crisis*, 265 JAMA 2491, 2492 (1991). However, a commonly used metric is 5% for poor. *See* COLLINS ET AL., TRENDS, *supra* note 71, at 6.

[88] *See* COLLINS ET AL., HEALTH INSURANCE COVERAGE, *supra* note 86, at 6.

percent of those covered by individual market insurance were underinsured in 2018.[89] Underinsurance is not, however, limited to the individual market. Twenty-eight percent of Americans with employer-based coverage were also underinsured in 2018.[90]

Being underinsured is associated with a risk of financial problems. Roughly half of underinsured adults have been contacted by a collection agency for medical bills.[91] Just over a third "had to change their way of life dramatically to pay for medical bills" (including increased credit-card debt, taking out further mortgages against their home, etc.).[92] These problems were more acute among sicker adults.[93]

*b. Medical Debt*

Medical debt is a significant problem. Medical debt is the top reason debt collectors contact Americans.[94] More than half of all debt on credit reports is from medical expenses.[95] There are several reasons for the growing medical debt crisis,[96] including CDHPs. Many Americans simply cannot cover their deductible. While CDHPs typically have deductibles that reach into the thousands of dollars, more than one third of Americans with CDHPs do not have a medical savings account to cover their medical costs.[97] Of those who do have an account, more

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89 *See id.*

90 *See id.*

91 Cathy Schoen, Michelle M. Doty, Sara R. Collins & Alyssa L. Holmgren *Insured But Not Protected: How Many Adults Are Underinsured?*, W5 HEALTH AFF. 289, 296 (2005).

92 *Id.*

93 *Id.* Underinsurance not only increases financial risk, it also increases health risks. The underinsured are significantly more likely to go without care because of costs. *Id.*

94 *See* CONSUMER EXPERIENCES, *supra* note 10, at 21.

95 Andrews, *supra* note 10.

96 These include a growth in the rate of uninsured Americans, the availability of cheap but skimpy health insurance plans made available by the Trump administration, and growing number of out-of-networks medical providers. Olga Khazan, *Americans Are Going Bankrupt from Getting Sick*, ATLANTIC (Mar. 15, 2019), https://www.theatlantic.com/health/archive/2019/03/hospital-bills-medical-debt-bankruptcy/584998/ [https://perma.cc/7WXJ-QR3U].

97 *See* Jeffrey T. Kullgren, Elizabeth Q. Cliff, Christopher Krenz, Brady T. West, Helen Levy, Mark Fendrick & Angela Fagerlin, *Use of Health Savings Accounts Among US Adults Enrolled in High-Deductible Health Plans*, 3 JAMA NETWORK OPEN 4 (2020) (according to survey data analysis, an estimated 32.5% did not have an health savings account, 58.4% had an account, and 9.1% did not know if they had an account or did not answer the survey question).

than half put no money in the account.[98] Moreover, Americans do not have sufficient savings in the regular savings account to cover their deductible. The most recent Report on the Economic Well-Being of U.S. Households, an annual survey conducted by the Federal Reserve Board, found that 40% of adult Americans state that they could not come up with $400 in an emergency without turning to credit cards, family and friends, or selling off possessions.[99] Another survey indicated that 69% of Americans have less than $1,000 in savings.[100]

For those CDHPs with a medical savings account, the situation is not much better. Nearly a third of these people do not have enough savings in their accounts to cover their deductible.[101] More than half of those with the highest deductibles (at least $3,000 for an individual or $5,000 for a family) do not have enough saved to cover their deductible.[102]

The problem is more severe for families with a member with a chronic health condition. Nearly half of those with employer-sponsored coverage say that someone covered by their plan has a chronic medical condition.[103] About half of those families with the highest deductibles report they may not be able to pay required medical costs and nearly two-thirds say they may not be able to pay the costs of a major illness.[104]

Medical debt can also be financially toxic. In one survey, 59% of adults reported using up all or most of their savings to pay their bills.[105] Medical debt can lead to lower credit ratings, delays in education or

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[98] *See id.* (finding that 55% of enrollees in a high deductible plan with a health savings account had not contributed any money into it in the prior twelve months).

[99] *See* BD. OF GOVERNORS OF THE FED. RESERVE SYS., REPORT ON THE ECONOMIC WELL-BEING OF U.S. HOUSEHOLDS IN 2018, at 21 (2019), https://www.federalreserve.gov/publications/files/2018-report-economic-well-being-us-households-201905.pdf [https://perma.cc/EF4F-UT8D].

[100] Niall McCarthy, *Survey: 69% of Americans Have Less Than $1,000 in Savings*, FORBES (Sep. 23, 2016), https://www.forbes.com/sites/niallmccarthy/2016/09/23/survey-69-of-americans-have-less-than-1000-in-savings-infographic [https://perma.cc/25TX-NFAH] (reporting results of GoBanking survey of 7,000 Americans).

[101] *See* HAMEL ET AL., L.A. TIMES SURVEY, *supra* note 14, at 13 (noting that 31% of people do not have enough saved to cover their deductible).

[102] *Id.* (highlighting that 56% of people do not have enough to pay their deductible). Two-thirds of people enrolled in plans with high deductibles say they would not be able to pay a bill equal to the full amount of their deductible without going into debt. *Id.* at 14.

[103] *See id.* at 12 fig.11 (noting that 49% of individuals with employer sponsored coverage have someone covered by their plan with a chronic condition).

[104] *See id.* at 18 fig.18 (reporting that 48% are not confident in their ability to pay for usual required medical costs and 64% are not confident they could pay for a major illness). For families with a low or no deductible, the figures are roughly halved. Twenty percent said may not be able to pay required medical costs while 32% said they were not confident they could pay the costs of a major illness. *See id.*

[105] HAMEL ET AL., N.Y. TIMES SURVEY, *supra* note 9, at 15.

career plans,[106] and cutting back on household expenses and vacations. Among Americans with medical bill problems, 70% say they cut back on spending for food, clothing, or other basic household items, and 35% say they have been unable to pay for basic needs like food, heat, or housing.[107] Medical debt also drives patients to take on a second job or increase work hours,[108] increase their credit card debt,[109] borrow money from family and friends,[110] and take money out of their retirement or educational accounts[111] simply to get by.

And, because deductibles reset every year, the debt problem renews annually.[112]

### *c. Medical Bankruptcies*

Medical debt has driven many patients into bankruptcy. Nearly 60% of respondents to a recent survey indicated that medical debts "very much" or "somewhat" contributed to their bankruptcy.[113] Medically driven bankruptcies also have cascading health effects. For example, cancer patients are more than twice as likely as their peers without the disease to declare bankruptcy,[114] and cancer patients who declared

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106 *See id.*

107 *See id.* at 15, 17.

108 *Id.* at 15 (noting that 41% of insured individuals took an extra job or worked more hours).

109 *Id.* (noting that 38% of insured and 24% of uninsured individuals increased their credit card debt).

110 *See id.* (noting that 37% of insured and 38% of uninsured individuals borrowed money from family or friends).

111 *See id.* (noting that 31% of insured and 17% of uninsured individuals took money out of their retirement or educational accounts).

112 *See* VICTOR G. VILLAGRA, MARIO FELIX, EMIL COMAN, DENISE O. SMITH, ALLISON JOSLYN, TRISHA PITTER & WIZDOM POWELL, WHEN HOSPITALS AND DOCTORS SUE THEIR PATIENTS: THE MEDICAL DEBT CRISIS THROUGH A NEW LENS 3 (2019), https://health.uconn.edu/health-disparities/wp-content/uploads/sites/53/2019/06/HDI-Issue-Brief_When-Hospitals-and-Doctors-Sue-Their-Patients.pdf [https://perma.cc/9RWQ-2G2G] ("Americans face a perennial risk of incurring medical debt, despite insurance coverage and an otherwise comfortable income.").

113 *See* Himmelstein et al., *supra* note 11, at 432.

114 *See* Scott D. Ramsey, David K. Blough, Anne C. Kirchhoff, Catherine R. Fedorenko, Kyle S. Snell, Karma L. Kreizenbeck, Polly Newcomb, William Hollingworth & Karen A. Overstreet, *Washington Cancer Patients Found to Be at Greater Risk for Bankruptcy Than People Without a Cancer Diagnosis*, 32 HEALTH AFF. 1143, 1147 (2013) (finding that cancer patients were 2.65 times more likely to go into bankruptcy than patients without cancer).

bankruptcy were significantly more likely to die than those who did not need to ask the courts to discharge their debts.[115]

*d. Aggressive Debt Collection*

Medical debt has sparked a new phenomenon: medical peonage. Distressingly large numbers of patients are haled to court by hospitals and doctors seeking payment of medical bills.[116] Many of these patients face long-term payment plans, garnished wages, and repossession of their property. Some even face jail.[117]

*e. New Medical Charity*

Mounting patient debt and aggressive collection practices have prompted new, and somewhat unusual, forms of medical charity.[118] Some indebted patients look to social media.[119] For many, GoFundMe

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[115] Scott D. Ramsey, Aasthaa Bansal, Catherine R. Fedorenko, David K. Blough, Karen A. Overstreet, Veena Shankaran & Polly Newcomb, *Financial Insolvency as a Risk Factor for Early Mortality Among Patients with Cancer*, 34 J. CLINICAL ONCOLOGY 980, 984-85 (2016) (finding "a consistent, positive association between filing for bankruptcy and earlier mortality").

[116] *See, e.g.*, VILLAGRA ET AL., *supra* note 112, at 4-5 ("[B]etween 2011 and 2016, [Connecticut] physician practices, hospitals or collection agencies combined initiated 81,136 lawsuits in small claims courts, up to $5,000 per claim, against their patients to recover outstanding medical debts . . . ."); Wendi C. Thomas, *The Nonprofit Hospital That Makes Millions, Owns a Collection Agency and Relentlessly Sues the Poor*, PROPUBLICA (June 27, 2019, 6:00 AM EDT), https://www.propublica.org/article/methodist-le-bonheur-healthcare-sues-poor-medical-debt [https://perma.cc/5SD7-A86S] (reporting that Virginia hospitals filed more than 20,000 medical debt lawsuits in 2017).

[117] Lizzie Presser, *When Medical Debt Collectors Decide Who Gets Arrested*, PROPUBLICA (Oct. 16, 2019), https://features.propublica.org/medical-debt/when-medical-debt-collectors-decide-who-gets-arrested-coffeyville-kansas/ [https://perma.cc/JH4H-WT9G] ("Across the country, thousands of people are jailed each year for failing to appear in court for unpaid bills . . . .").

[118] Patients unable to cover their medical cost have long relied on hospital charity, such as charity care policies and sliding scale payments. Many such provisions are required by state and federal law. VILLAGRA ET AL., *supra* note 112, at 4; *see* Katie Plax & Robert W. Seifert, *Medical Debt, Health Care Access, and Professional Responsibility*, 8 ETHICS JAMA 166, 167-68 (2006).

[119] *See* Nathan Heller, *The Hidden Cost of GoFundMe Health Care*, NEW YORKER (June 24, 2019), https://www.newyorker.com/magazine/2019/07/01/the-perverse-logic-of-gofundme-health-care [https://perma.cc/NNU5-CTY2] ("GoFundMe has become a . . . portrait of our country's teetering medical finances, a repository for the costs that patients and underwriters cannot or will not cover on their own."); Helaine Olen, *Even the Insured Often Can't Afford Their Medical Bills*, ATLANTIC (June 18, 2017), https://www.theatlantic.com/business/archive/2017/06/medical-bills/530679/ [https://perma.cc/YS3A-LQFR]; Mark Zdechlik, *Patients Are Turning to GoFundMe to Fill Health Insurance Gaps*, NPR (Dec. 27, 2018, 4:29 PM ET), https://www.npr.org/sections/health-shots/2018/12/27/633979867/

has become the charity of last resort.[120] A third of the money raised on GoFundMe in 2017 was for medical expenses.[121] While some GoFundMe medical funds are generously funded,[122] most are not.[123] But GoFundMe is only one among many crowdsourced medical funds. There are other smaller funds as well as specialty funds for transplants[124] and specific diseases.[125] Like GoFundMe, these funds cannot cover the demand for help.[126] Another form of charity is medical debt purchasing. Organizations, such as R.I.P. Medical Debt,[127] and sometimes individuals[128] acquire medical debt from collection agencies with no intention of ever collecting it — effectively zeroing it out.[129]

patients-are-turning-to-gofundme-to-fill-health-insurance-gaps [https://perma.cc/TF4G-P3NF].

120 *See* Heller, *supra* note 119.

121 *Id. See generally* Ainsley Harris, *How Crowdfunding Platform GoFundMe Has Created a $3 Billion Digital Safety Net*, FAST COMPANY (Feb. 13, 2017), https://www.fastcompany.com/3067472/how-crowdfunding-platform-gofundme-has-created-a-3-billion-digital [https://perma.cc/5RTT-R7RC] (providing details about GoFundMe's growth as one of the largest crowdfunding sources for medical expenses).

122 For example, donors gave $1.8 million to help one family cover an experimental treatment for their child's rare disease. In another case, donors contributed nearly $950,000 to a man battling cancer. Ben Paynter, *The Top 10 Most Popular GoFundMe Campaigns of 2017*, FAST COMPANY (Dec. 13, 2017), https://www.fastcompany.com/40504864/the-top-10-most-popular-gofundme-campaigns-of-2017 [https://perma.cc/T2M4-6Y3V]; *see also* Jeffrey Young, *Life and Debt: Stories from Inside America's GoFundMe Health Care System*, HUFFINGTON POST (June 10, 2019, 1:00 PM ET), https://www.huffpost.com/entry/gofundme-health-care-system_n_5ced9785e4b0ae6710584b27 [https://perma.cc/9REY-LRP4].

123 A 2015 analysis found only 11% of health care fundraisers on Fundrazr, GiveForward, GoFundMe, Plumfund, and Red Basket met the organizer's financial target. Anna Helhoski, *Just 11% of Medical Crowdfunding Campaigns Are Fully Funded, Study Finds*, NERDWALLET (Nov. 2, 2016), https://www.nerdwallet.com/blog/studies/study-few-medical-campaigns-funded-bankruptcy/ [https://perma.cc/86Q7-D243]; *see also* Lauren S. Berliner & Nora J. Kenworthy, *Producing A Worthy Illness: Personal Crowdfunding Amidst Financial Crisis*, 187 SOC. SCI. & MED. 233, 236 (2017) (detailing a 2016 study of GoFundMe, which found 90% of such funds were never fully funded).

124 *See* Heller, *supra* note 119.

125 *See id.*

126 *See* Olen, *supra* note 119 ("[F]or many who do receive monetary aid in the face of a medically induced financial crisis, it helps them, but it doesn't make their money woes go away.").

127 *See* Heller, *supra* note 119.

128 *See, e.g.*, Sharon Otterman, *2 New Yorkers Erased $1.5 Million in Medical Debt for Hundreds of Strangers*, N.Y. TIMES (Dec. 5, 2018), https://www.nytimes.com/2018/12/05/nyregion/medical-debt-charity-ny.html [https://perma.cc/QUY7-L77E] (describing how two women sent $12,500 to a debt-forgiveness charity which purchased $1.5 million of medical debt).

129 *See* Heller, *supra* note 119.

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Medical debt has become a toxic side effect of CDHPs and their large deductibles. Yet, deductibles have been a long-standing — and largely uncontroversial — component of insurance. Part II examines the theory and use of deductibles in health insurance and explains how deductibles transitioned from an insurance industry tool to a component of economic theory.

## II. FROM MORAL PERFIDY TO ORTHODOX ECONOMICS

Although insurance deductibles have existed for more than a century, they were a late addition to the private health insurance market. Deductibles serve several purposes, but their traditional function has been to control moral hazard. As the conception of moral hazard changed over time, so has the role of the deductible.

This Part describes the transformation of moral hazard from a value-laden insurance principle to a value-neutral economic theory.[130] This conversion was central to the development of CDHPs. Prior to the 1960s, discussions of moral hazard were dominated by moralizing rhetoric; insurance was thought to corrupt its purchasers, who recklessly or deliberately increased claims and drove up premiums.[131] Using a simple graphic illustration, economist Mark Pauly argued that moral hazard was not the result of moral weakness, but the product of rational economic decision-making.[132] Pauly's formation of moral hazard became "the most powerful narrative in American health policy."[133] Moral hazard was recast as the law of supply and demand for health insurance,[134] with the deductible becoming the tool to drive down health care costs.

Section A describes the history of the deductible in health insurance. Section B sets out the 1960s debate between economists Kenneth Arrow and Mark Pauly that prompted the theoretic transformation of moral hazard. Pauly's diagrammatic model is detailed in Section C. Economic models are often quite technical. This Section describes Pauly's model in layman's terms, making its conclusions and limitations accessible. Pauly's model and conclusions are often discussed, typically with little elaboration. Section D's explains the limits of Pauly's model and how

[130] *See* Baker, *supra* note 25, at 247-49 (describing the evolution of the moral hazard theory).

[131] *See id.* at 252-53.

[132] *See* Pauly, *supra* note 26, at 535.

[133] Deborah Stone, *Moral Hazard*, 36 J. HEALTH POL. POL'Y & L. 887, 887 (2001).

[134] *Id.*

those limits undercut CDHP theory. Finally, Section E discusses the link between Pauly's model, the RAND Health Insurance Experiment ("RAND HIE"), and CDHP theory.

### *A. Health Insurance Deductibles*

Although the deductible had long been used in other lines of insurance,[135] health insurance did not include deductibles until 1949 — two decades after the first U.S. health insurance plan was developed. Deductibles were nonexistent in early health insurance because the plans were developed by hospitals and structured as financing mechanisms. Later, when commercial insurance companies were well-established in the health insurance market and coverage became more substantial, deductibles became commonplace.

#### 1. Blue Cross and First Dollar Coverage

Private health insurance arose in the U.S. because hospital care had become too costly for many Americans. Like many other hospitals in the late 1920s, Baylor University hospital struggled to make ends meet.[136] Improvements in medical care and improved technology made medical care more expensive — beyond the means of many middle-class Americans.[137] Hospital beds lay empty and hospitals were going bankrupt.[138] To increase revenues, Baylor offered a local employer, the Dallas School District, a prepaid hospitalization plan for its teachers.[139] For a small monthly fee, the Baylor plan provided subscribers full, prepaid coverage — first dollar coverage, with no deductible — of hospital charges for thirty days per year. The plan solved Baylor's financial crisis and provided plan members affordable access to hospital care.[140]

[135] *See* C. Arthur Williams, Jr., *The Deductible in Medical Expense Insurance*, 20 J. AM. ASS'N. UNIV. TEACHERS INS. 107, 108 (1953) (noting that deductibles were introduced in ocean marine insurance "centuries ago" and had been used other lines such as automobile collision insurance).

[136] *See* ROBERT CUNNINGHAM III & ROBERT M. CUNNINGHAM, JR., THE BLUES: A HISTORY OF THE BLUE CROSS AND BLUE SHIELD SYSTEM 4 (1997) (noting that the hospital was behind on its bills and bond payments and "just 30 days ahead of the sheriff").

[137] *See* John Aloysius Cogan Jr., *Does Small Group Health Insurance Deliver Group Benefits? An Argument in Favor of Allowing the Small Group Market to Die*, 93 WASH. L. REV. 1121, 1142-43 (2018).

[138] *See id.*

[139] *See id.* at 1143-44.

[140] *See id.*

Baylor's plan eventually became Blue Cross and Blue Shield.[141] As Blue Cross plans spread across the county, they continued Baylor's strategy of first-dollar coverage.[142] The success of Blue Cross drew commercial insurers into the medical coverage line. When trying to compete with Blue Cross, commercial insurers had to match Blue Cross' first-dollar coverage to attract customers.[143]

During this period, Blue Cross and commercial insurers had relatively low caps on coverage. In other words, coverage was generous for low- and moderate-cost claims, but not for very costly claims. If a covered patient's illness was not serious or did not require an extended hospital stay, both plans helped the patient meet his or her medical expenses.[144] But neither plan covered catastrophic illness.[145] This changed in the late 1940s, a development that opened the door to deductibles.

A growing demand for health insurance that covered non-hospital care and catastrophic illness prompted commercial insurers to expand coverage. A new product, called major medical, was first sold in 1949.[146] Major medical covered catastrophic costs and also included coverage for services such as diagnostic tests and outpatient procedures.[147] But this new type of coverage brought with it a deductible, which meant that the insured would not recover under the policy if medical expenses did not exceed the deductible amount.[148]

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[141] *See* DUNCAN M. MACINTYRE, VOLUNTARY HEALTH INSURANCE AND RATE MAKING 116 (1962) ("[T]he Baylor plan was the forerunner of Blue Cross."). Blue Cross, which covered hospital care, and Blue Shield, which covered physician care, were initially separate organizations. *See* PAUL STARR, THE SOCIAL TRANSFORMATION OF AMERICAN MEDICINE 295-310 (1982) (describing the emergence of Blue Cross and Blue Shield). The two organizations formally merged in 1982. CUNNINGHAM III & CUNNINGHAM, JR., *supra* note 136, at 204.

[142] *See* Williams, Jr., *supra* note 135, at 107 ("Most Blue Cross plans supply twenty-one days or more of hospital care in a ward or semiprivate room plus a discount of 25 per cent or more for an additional period. The term 'hospital care' includes room and board and miscellaneous services such as the use of an operating room, the cost of anesthesia, and drugs.").

[143] Charles P. Hall, Jr., *Deductibles in Health Insurance: An Evaluation*, 33 J. RISK & INS. 253, 253-54 (1966). Commercial insurers also began to offer coverage for medical expenses. "Commercial hospitalization plans usually provide a daily cash benefit which will pay for ward or semiprivate accommodations for a period not exceeding 70 days. Limited contributions toward the expenses of nursing care, surgical expenses, and miscellaneous medical expenses are also available." Williams, Jr., *supra* note 135, at 107.

[144] Williams, Jr., *supra* note 135, at 108.

[145] *See id.*

[146] *See* Beatrix Hoffman, *Restraining the Health Care Consumer: The History of Deductibles and Co-Payments in U.S. Health Insurance*, 30 SOC. SCI. HIST. 501, 504 (2006).

[147] *Id.*

[148] *See* Williams, Jr., *supra* note 135, at 108.

2. The Deductible as Standard Insurance Tool

There are three main purposes for deductibles in health insurance. First, deductibles lower premiums by shifting some financial risk to patients. This is the reason commercial health insurers first imposed deductibles. Deductibles allowed commercial insurers to offer increased coverage under major medical plans while keeping premiums competitive with Blue Cross.[149]

Second, deductibles can be used to control adverse selection.[150] Adverse selection occurs when buyers of insurance know more about their own risk of making a claim than an insurer and use that information when purchasing coverage.[151] This use of private health information can cause insurers to inadequately price risk and lose money.[152] For example, if an insurance buyer uses his own private risk information (e.g., he is in poor health and likely to need lots of medical care) when choosing a health plan, an insurer could set the premium for that buyer too low. To fight adverse selection, insurance companies impose deductibles to help sort risky customer from less risky ones.[153]

The third reason is to control moral hazard. Insurers typically viewed moral hazard as "an unwholesome mix of bad character and temptation" that had to be "ferret[ed] out from the insurance enterprise."[154] Thus, most lines of insurance (i.e., life, property, liability) were designed to limit moral hazard. People with bad characters — "moral hazards" — were excluded through underwriting, the process used by insurance companies to evaluate risk and set premiums.[155] Cost sharing, such as deductibles, performed a different function. By structuring the insurance contract so that the insured shouldered some of the burden of a claim, a deductible could discourage "good people" from doing wrong, that is, making false or frivolous

[149] *See* Hoffman, *supra* note 146, at 504. By the early 1950s, major medical insurance began to take off, forcing even Blue Cross plans to offer more extensive coverage plans with deductibles. *See id.* at 507.

[150] *See* Michael L. Smith & George L. Head, *Guidelines for Insurers in Pricing Deductibles*, 45 J. RISK & INS. 217, 218 (1978).

[151] *See* Peter Siegelman, *Adverse Selection in Insurance Markets: An Exaggerated Threat*, 113 YALE L.J. 1223, 1223 (2004).

[152] *See id.* at 1223-24.

[153] It is generally thought that people who are sick and most likely to file claims likely prefer more coverage — with a lower deductible — and are more willing to pay a higher premium than are the buyers who are healthy. *See id.* at 1237-38.

[154] Baker, *supra* note 25, at 240, 253 ("With moral hazard, . . . refusal to insure was the first resort.").

[155] *See id.* at 250-51.

claims.[156] As coverage became more extensive under major medical plans, insurers feared patients would abuse their coverage by making frivolous or false claims. Deductibles were thought to provide insurers some protection from this sort of behavior.[157]

While insurers looked at deductibles as a necessary part of the insurance business, consumers viewed deductibles quite differently: as a burden that limited the value of health insurance and caused patients to reduce medical care.[158] Nevertheless, major medical insurance plans were standard fare by the mid-1960s,[159] with annual deductibles typically around $100.[160] By the late 1960s, however, economists and policy experts began to view the deductible differently, as the notion of moral hazard transitioned from a character issue to an economic issue.[161]

### B. *The Shift from Morality to Economics*

The deductible's transformation followed a debate between two economists, Kenneth Arrow[162] and Mark Pauly, on the concept of moral hazard and the means to control it.

#### 1. Arrow: Moral Hazard as Market Failure

The deductible's transformation began in 1963 when Arrow published his seminal health economics article *Uncertainty and the Welfare Economics of Medical Care*.[163] Arrow's discussion of moral hazard and market failure triggered the debate with Pauly. This debate transformed the deductible from as means to control "moral perfidy"[164] to a tool to improve social welfare.

Arrow began by describing the unique aspects of the health insurance market, including the asymmetry of information between patient and

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[156] *See id.* at 240-41.

[157] *See* Hoffman, *supra* note 146, at 504-05.

[158] *See id.* at 505.

[159] *See id.* at 504.

[160] *Id.* This is roughly $834 in 2020 dollars. *CPI Inflation Calculator*, BUREAU LAB. STAT., https://data.bls.gov/cgi-bin/cpicalc.pl?cost1=100.00&year1=196501&year2=202009 (last visited November 9, 2020) [https://perma.cc/WGU6-27Q3] (comparing the buying power of $100 in January 1965 to September of 2020).

[161] *See* Baker, *supra* note 25, at 240.

[162] Arrow was arguably the greatest economic theorist of the twentieth century, and certainly one of the giants of the field.

[163] Arrow, *supra* note 27, at 941.

[164] *See* Pauly, *supra* note 26, at 535.

physician and the uncertainties inherent in the diagnosis and treatment of illness.[165] Arrow then noted that physicians function as agents of insurance companies because they prescribe and administer covered medical care.[166] But this agency relationship is flawed by a lack of information; insurers cannot perfectly monitor physicians. The information uncertainties and asymmetries, the insurers' inability to fully oversee physicians, and the patients' insulation from the cost of care create a potential for moral hazard: the oversupply of medical care by physicians. This, Arrow surmised, created a pricing problem for insurers.[167] Since insurers have incomplete information about physician behavior, they cannot accurately determine premiums. Insurers will respond to this problem by reducing coverage in order to lower their risk. The result, according to Arrow, is that insurance companies will underprovide valuable forms of health insurance coverage.[168] Since the case for insurance is "overwhelming" due to gains from risk avoidance,[169] Arrow considered the potential negative consequences of moral hazard to be substantial. Arrow concluded that government intervention may be needed to create "a much wider class of [medical] insurance policies than now exists."[170]

### 2. Mark Pauly: Moral Hazard as Rational Behavior

Arrow's analysis of moral hazard — and his call for government intervention in the health insurance market — prompted a response from Pauly.[171] Pauly argued that insurance can cause too much consumption of medical care because people with full insurance coverage face medical prices that are lower than if they had no insurance.

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[165] *See* Arrow, *supra* note 27, at 951-52.

[166] *Id.* at 961.

[167] *See id.* at 961-62.

[168] *See id.*

[169] *Id.* at 961 ("The welfare case for insurance policies of all sorts is overwhelming.").

[170] *Id.* (noting that since the welfare case for insurance is overwhelming, "the government should undertake insurance in those cases where this market, for whatever reason, has failed to emerge"). Arrow's argument is based on the assumption that consumers are averse to the risk of uncertain events such as unpredictable medical expenses. In other words, they prefer the certainty of a *fair insurance premium* to the uncertainty of going without insurance and bearing the risk of the medical cost. Noting that a "wider" class of insurance coverage was needed, Arrow concluded that this lack of insurance was a market failure that necessitated government intervention. *Id.* at 959-61.

[171] *See* Pauly, *supra* note 26, at 531.

Using "orthodox" economic analysis,[172] Pauly concluded that the overconsumption of medical care due to insurance — the moral hazard — was not the result of "moral perfidy, but of rational economic behavior."[173] Fully insured (i.e., with first-dollar coverage) patients overconsume medical care because that care is essentially free at the doctor's office. The overconsumption, in turn, drives the cost of insurance up, making coverage financially unattractive to some individuals. Because some individuals rationally choose not to buy insurance at the premium offered, moral hazard caused no market failure requiring government intervention.

According to Pauly, moral hazard is a feature of health insurance that can be controlled by realigning the purchasing incentives of insureds through cost sharing — deductibles and coinsurance.[174]

Pauly's theory remains the dominant view of moral hazard[175] and is the foundation upon which the CDHP theory is built.[176] Although Pauly's conclusion is widely cited, the details of his model are often omitted from discussion.[177] A close examination of Pauly's analysis is therefore necessary to fully understand Pauly's claims, the limits of his model, and why the CDHP theory of price control, which draws on Pauly's model,[178] is flawed.

### C. *Free Medical Care and the Deductible*

Pauly's model relies on two variables: (1) the price of medical care, which he set as the marginal cost,[179] and (2) patient demand for medical care. The model is a simple diagram illustrating two possibilities for a patient's demand and one constant price of medical service.[180] In short,

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[172] *Id.* at 535.

[173] *Id.*

[174] *See id.* at 535-36.

[175] *See* John A. Nyman, *American Health Policy: Cracks in the Foundation*, 32 J. HEALTH POL. POL'Y & L. 759, 762 (2007) (noting that Pauly's "simple illustration has been used by policy analysts of all types — economists and noneconomists alike — to explain [moral hazard, which] is often touted as the main problem with the U.S. health care system and to justify current policy prescriptions").

[176] *See id.* at 760.

[177] *But see id.* at 762-64.

[178] *Id.* at 762.

[179] Marginal cost is the cost of producing one additional unit of your product. In this case, the marginal cost curve is flat, which means that average costs don't rise or fall, even as the number of services rises or falls. That is an assumption to keep the model simple. JOSEPH E. STIGLITZ, ECONOMICS OF THE PUBLIC SECTOR 62-63 (3d ed. 2000).

[180] Pauly followed the approach of Milton Friedman, an influential neoliberal economist, set out in his 1953 book *The Essays of Positive Economics*, "which argues that

Pauly argues insurance that provides first dollar coverage essentially provides "free" care[181] since its cost to the patient at the time of service is $0.[182] This "free" care leads to overconsumption of medical care.

Figures 1 through 3 provide a simplified version of the diagram used by Pauly in his analysis. In Figure 1, the demand for medical services by a patient with a particular illness (*I*) is represented two ways. First, if the patient's demand for medical care is perfectly inelastic with respect to price,[183] the patient's demand for medical care for illness *I* is represented by the vertical line D'. The patient with demand of D' will consume five units of medical care. Pauly assumes the marginal cost (line MC) and price of the medical service are the same. Since the marginal cost for medical service is $100 per unit, the patient will consume five units of services for a total of $500.[184] This seen at point *a*, at the intersection of demand curve D' and the MC line.

Suppose, instead, the patient's demand for medical services is elastic and she responds to the market price, represented by the diagonal (downward sloping) demand curve D.[185] According to Pauly, the patient, if fully insured, will consume fifteen units of medical care because the price of care at the point of service is $0.[186] This is seen in Figure 1 at point *c* where demand curve D reaches down to the price of

the only orthodox tools of the economist are demand curves, prices, and incomes." Michel Grignon, Jeremiah Hurley, David Feeny, Emmanuel Guindon & Christina Hackett, *Moral Hazard in Health Insurance*, 8 ECONOMIA 367, 374 (2018); *see* Pauly, *supra* note 26, at 532.

181 *See* Pauly, *supra* note 26, at 532.

182 *Id.* ("The effect of an insurance which indemnifies against all medical care expenses is to reduce the price charged to the individual at the point of service from the market price to zero.").

183 In other words, price does not affect the amount of medical services consumed.

184 *See* Pauly, *supra* note 26, at 532 ("Only if this demand is perfectly inelastic with respect to price in the range from the market price to zero is an expense 'insurable' in the strict sense . . . .").

185 "A demand curve shows the . . . relationship between the price of a commodity and the quantity that consumers . . . purchase. For most commodities, consumers exhibit a downward-sloping demand curve [from left to right], meaning that consumers demand more units of a commodity as [its] price falls." Nyman, *supra* note 175, at 762. The various prices along the curve become measures of the value of each unit of medical care because they represent what consumers are willing to pay for each successive unit of medical care. A downward sloping demand curve means that consumers value each unit of medical care less. *Id.* at 763 ("In general, the demand curve shows that, as consumers have more and more units of medical care, the value they attach to each additional unit of medical care is lower and lower.").

186 *See* Pauly, *supra* note 26, at 533 (stating that the patient "will alter his desired expenditures for medical care because of the fact of insurance. The individual who has insurance which covers all costs demands medical care as though it had a zero price").

$0. The cost of providing that medical care is $1,500, since the patient consumes fifteen units at $100 per unit.[187] Compared to the patient with inelastic demand D', the patient with elastic demand D consumes ten additional units medical care because she has insurance.[188] The square *abcd* captures total cost to society of producing the additional ten units of medical care consumed because of insurance (the moral hazard).[189] The value of the additional medical care to the consumer is represented as the triangle area under the demand curve D, *abc*. Thus, the cost of producing the moral hazard (*abcd*) exceeds its value by area *acd* and represents the welfare loss due to moral hazard.[190]

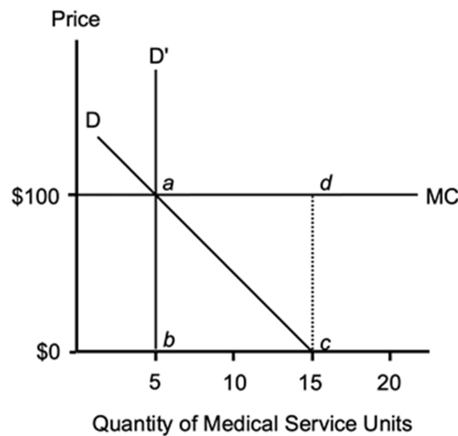


Figure 1

Pauly concludes that the excessive consumption is both rational and inevitable because insurance lowers the marginal cost of medical care to the patient at the point of service.[191] While a particular patient may recognize that the excess use of medical care will increase premiums, no individual will have an incentive to cut back her excess use because the costs of that excess use will be spread over the other insureds.[192] But there is a larger side-effect. The cost of the excess use resulting from

[187] *See id.* Another comparison would be between the elastic demander facing a price of five units equal to marginal cost and an elastic demander facing a price of $0. This difference drives the increase in quantity demanded.

[188] To be clear, the difference that drives the increase in quantity demanded is the cost to a patient with elastic demand D facing a price of five units (equal to marginal cost) and a patient with elastic demand D facing a price of $0.

[189] *See* Nyman, *supra* note 175, at 763.

[190] *See id.* at 764.

[191] *See* Pauly, *supra* note 26, at 534.

[192] *See id.* at 533-34.

moral hazard will, in the aggregate, drive up premiums and lead some people to rationally decide not to purchase insurance; moral hazard will make coverage too expensive for some people relative to their risk.[193]

Pauly's answer to moral hazard is cost sharing, including a deductible.[194] Pauly's solution presumes a rational and calculating actor: a patient who will "compare the position he would attain if he covered the deductible and received additional care free with the position he would attain if he paid the market price for all the medical care he consumed but did not cover the deductible."[195]

Figure 2 demonstrates how Pauly's conception of the deductible works. A patient with illness *I* will pay a deductible and consume fifteen units of medical care as long as the excess amounts she pays as a deductible (the shaded triangle labelled Excess)[196] is less than the surplus the patients gets from the "free" units of care she can consume under her coverage (the shaded triangle labelled Surplus).[197] In this this example, $1,000 is the breakeven point for a deductible (represented by the vertical dotted line at ten units of care).[198] If a patient with illness *I* and a demand of D pays a deductible of $1,000 and consumes fifteen units of medical care, the Excess amount she pays as a deductible is equal to the Surplus she gets from the "free" units of care this coverage allows her to consume. If the deductible is less than $1,000, the individual will cover the deductible and will consume fifteen units because the Excess amount she pays as a deductible will be less than the Surplus she gets from the "free" units of care.

[193] *See id.* at 533 ("[M]ay well not wish to purchase such insurance at the premium his behavior as a purchaser of insurance and as a demander of medical care under insurance makes necessary."). And that's a welfare loss, at least relative to the first-best optimum. Moreover, there can be follow-on selection effects. Those who drop out of the market because of the too-high premiums are likely to be the healthier insureds. The remaining pool will be sicker, and that will further push up premiums.

[194] Pauly also uses coinsurance. *See id.* at 536.

[195] *Id.*

[196] The excess is the difference between what a consumer actually pays and what she is willing to pay. In the case of the deductible, the excess equals the area below price, above the demand curve, and to the left of the deductible.

[197] The consumer surplus is the difference between what a consumer is willing to pay and what she actually pays. The total consumer surplus generated by the purchase of a good at the given price is equal to the area below the demand curve but above the price. In the case of the deductible, surplus equals the area under the demand curve and to the right of the deductible.

[198] Each unit is priced at $100, so ten units equals $1,000.

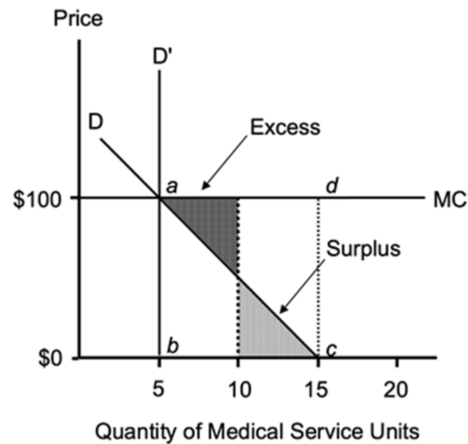


Figure 2

As shown in Figure 3, however, if the deductible is greater than $1,000 (and the deductible line shifts to the right), the Excess will exceed Surplus. The rational patient will not cover the deductible and will purchase only five units at market price.

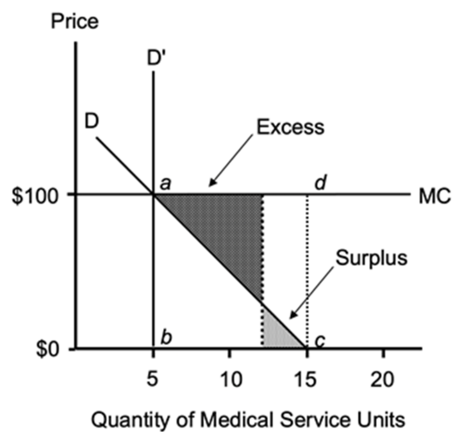


Figure 3

Pauly sees the deductible as capable of producing one of two possible results. If the deductible is too small (under $1,000 in this example), it will have no effect on the patient's consumption of medical services. The patient will still overconsume. If the deductible is large enough (over $1,000) the patient will not pay the deductible and will only

consume the amount of medical services she would have purchased if she had no insurance.[199]

### *D. Limitations of the Model*

Pauly's model is a streamlined representation of patient demand for medical care, given several different levels of cost-sharing ($0, under $1,000, over $1,000). The model is useful because it simplifies the concept of patient demand into a form that is easily understood and allows Pauly to draw general inferences about patient demand.[200] The simplified nature of the model, however, limits the conclusions that can be drawn from the model.

When evaluating the relationship between CDHP theory and Pauly's model, three important limits of Paul's theory stand out. First, Pauly's model does not reflect the larger health care economy. The model provides what economists call a partial equilibrium analysis. Partial equilibrium analysis examines a single market transaction in isolation, holding all other conditions (including the responses in all other markets) constant.[201] The diagram is also static. It is based on conditions at a fixed point in time and does not reflect a changes that might occur in the larger economy.[202] While this approach streamlines theoretical analysis, the model's results, which appear exacting, are anything but exact and do not reflect real world practices or outcomes. Absent follow-up empirical study, Pauly's model alone offers little value as a basis for concrete policy decisions.

Pauly's model considers only two variables, patient demand and the price of medical care, at a single point in time. The model does not account for, or even contemplate, the actions of medical providers[203] or

[199] *See* Pauly, *supra* note 26, at 536.

[200] *See* Nyman, *supra* note 175, at 762 ("[A] demand curve remains a useful theoretical concept because it allows analysts to focus on the *relationship* between price and the quantity demanded rather than on the exact amounts.").

[201] Peter J. Hammer, *Antitrust Beyond Competition: Market Failures, Total Welfare, and the Challenge of Intramarket Second-Best Tradeoffs*, 98 MICH. L. REV. 849, 856 (2000); Mark Klock, *Mainstream Economics and the Case for Prohibiting Inside Trading*, 10 GA. ST. U. L. REV. 297, 305 (1994) (describing a partial equilibrium model as a theoretical approach that "looks at a single transaction in isolation and holds everything else constant in a nirvana-like fallacy").

[202] *See* ERIC D. BEINHOCKER, THE ORIGIN OF WEALTH 42-66 (2006) (describing the development of the supply and demand model as an attempt to make economics more mathematical through the use of physics equations that were based on static systems in a state of rest or equilibrium).

[203] Indeed, Pauly's model only looks at the demand side of the transaction, that is, the patient's demand for care. Pauly rejects the idea that physicians can control the

insurers. As a static model, it also does not contemplate changes to the larger medical or insurance landscapes. As Part IV describes in detail, medical providers not only act independently of patient demand when raising prices, some respond to the use of deductibles by creating new incentives to increase demand. Likewise, insurers respond to high deductibles by offering insurance products that can increase demand for medical care.

Second, Pauly's model does not cover all medical services. As Pauly acknowledged, the model was intended to cover demand for illnesses that are routine and predictable, such as "visits to a physician's office . . . dental care, eyeglasses or drugs," not catastrophic or chronic illnesses.[204] Given that 90% of total U.S. health care spending is for people with chronic conditions,[205] this is an extraordinarily significant limitation. This indeed may be the single most damning, yet

medical transaction, arguing that "Arrow appears to consider moral hazard as an imperfection, a defect in physician control, rather than as a simple response to price reduction. He does not consider the direct relationship which exists between the existence of moral hazard and the validity of the welfare proposition." *See* Pauly, *supra* note 26, at 535 n.3. Thus, Pauly argued that "price rationing at the point of service" was the key to reducing overconsumption of medical services. *Id.* at 534. Arrow's pithy response summed up a main point of contention between the two economists. In a short piece following Pauly's comment, Arrow cut through Pauly's argument by noting that there is not, in fact, a complete disconnect between moral hazard and moral principles:

> We may agree certainly that the seeking of more medical care with insurance is a rational action on the part of the individuals if no further constraints are imposed. It does not follow that no constraints ought to be imposed or indeed that in certain contexts individuals should not impose constraints on themselves. Mr. Pauly's wording suggests that "rational economic behavior" and "moral perfidy" are mutually exclusive categories. No doubt Judas Iscariot turned a tidy profit from one of his transactions, but the usual judgment of his behavior is not necessarily wrong.

Kenneth J. Arrow, *The Economics of Moral Hazard: Further Comment*, 58 AM. ECON. REV. 537, 538 (1968). As Tom Baker has noted, however:

> In the [now half-century] since their exchange, Pauly's criticism, and not Arrow's response, has had the greater influence. Tellingly, the subsequent economics literature (including Arrow's own contributions) exclusively addresses external incentives, not "internalized moral principles." Indeed, despite Arrow's pointed criticism, Pauly's observation that moral hazard has little to do with morality has become the conventional wisdom.

Baker, *supra* note 25, at 269 (internal citation omitted).

[204] Pauly, *supra* note 26, at 535; *see also* Mark Pauly, *More on Moral Hazard*, 2 J. HEALTH ECON. 81, 83 (1983) ("[T]he relevant theory, empirical evidence, and policy analysis for moral hazard in the case of serious illness [have] not been developed. This is one of the most serious omissions in the current literature. . . .").

[205] *See* BUTTORFF ET AL., *supra* note 13, at 15 fig.2.2.

underappreciated, criticism of CDHPs. To put it bluntly, Pauly's model does not even pretend to cover the uses to which it has been put by CDHP advocates.

Finally, the model tells us little about the price of medical services. The model was designed to illustrate changes to consumer demand based on insurance coverage. Therefore, it used a theoretical, fixed price based on the marginal cost of particular medical service. Pauly's model offers no insight as to how (or if) medical providers might alter prices in response to different levels of patient demand. This illustrates another mismatch between Pauly's model and CDHP theory. The former tells us nothing about the effect of consumer demand on provider price while the latter claims that a drop in consumer demand will push down provider prices.

Unlike Arrow,[206] Pauly viewed medical care as simply another commodity whose consumption can be understood by demand and price.[207] This assumption, combined with a reliance on an orthodox model of market analysis that focused solely on the consumer demand, price, and cost, unsurprisingly offered a demand-side solution — "price rationing at the point of service."[208] The simplicity of Pauly's model structured its solution. This is true of any model, since all models are limited by the validity and simplicity of their assumptions. But this is a point worth noting. There is a common aphorism attributed to British statistician George E. P. Box: "All models are wrong, but some are useful."[209] That is, even if a model does not exactly reflect the real world, it can still be useful if it is simply close enough. Of course, "useful" depends on what the model is being used for. To the extent that we want to draw general inferences about patient demand for medical care, Pauly's model can be useful. Once Pauly's model is used beyond its limits, the model loses its usefulness.

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[206] Arrow viewed medical care as the product of a relationship between the provider and the patient that was marked by uncertainty and required a trust relationship. As such, demand for medical care could not be determined solely by price and demand. *See* Arrow, *supra* note 27, at 967 ("The logic and limitations of ideal competitive behavior under uncertainty force us to recognize the incomplete description of reality supplied by the impersonal price system.").

[207] *See* Pauly, *supra* note 26, at 531-32, 534.

[208] *See id.* at 531, 534.

[209] *E.g.*, Gerald G. Singh, Iain McKechnie, Todd J. Braje & Breana Campbell, *"All Models Are Wrong but Some Are Useful": A Response to Campbell's Comment on Estimating* Mytilus Californianus *Shell Size*, 63 J. ARCHAEOLOGICAL SCI. 160, 160 (2015) (quoting George E. P. Box, *Robustness in the Strategy of Scientific Model Building*, *in* ROBUSTNESS IN STATISTICS 201, 202 (Robert L. Launer & Graham N. Wilkinson eds., 1979)).

1. Where Pauly's Model Leaves Us

At the time of the Arrow-Pauly debate, there was little empirical evidence about the effects of health insurance deductibles; the Arrow-Pauly debate and Pauly's theory were purely theoretical. Less than a decade after Pauly's article, the RAND HIE, a research study of cost sharing in private health insurance, began enrolling participants.[210] The RAND HIE had a profound effect on the moral hazard debate. While Pauly's demand-side view came to dominate the theoretical debate behind moral hazard,[211] the findings of the RAND HIE gave Pauly's theory a set of legs. Like Pauly's model, the RAND HIE has its own shortcomings — ones that are also largely ignored by CDHP theory.

### E. *RAND HIE and Measurement of Moral Hazard*

The RAND HIE was a randomized, controlled study from 1974 to 1982 that looked at the effects of cost-sharing on medical care use and health outcomes.[212] Pauly's conception of moral hazard is closely linked to the RAND HIE. The RAND HIE was designed to measure the elasticity of demand for health insurance due to moral hazard, as defined by Pauly [213] The RAND HIE is widely viewed as the "gold standard" of research on moral hazard and the role of cost-sharing on consumption of medical care.[214] Pauly has argued that the RAND HIE provided "bulletproof" support for his theory of moral hazard.[215] Indeed, one of the main empirical findings from the RAND HIE — and the one most central to the theory behind CDHPs — is that the demand curve for medical care by an insured patient slopes downward and to the right,[216] just as Pauly had predicted in his diagram.

[210] *See* JOSEPH P. NEWHOUSE & THE INS. EXPERIMENT GRP., FREE FOR ALL? LESSONS FROM THE RAND HEALTH INSURANCE EXPERIMENT 4 (1993) [hereinafter FREE FOR ALL].

[211] *See* Baker, *supra* note 25, at 268-69.

[212] *See* NEWHOUSE & THE INS. EXPERIMENT GRP., FREE FOR ALL, *supra* note 210, at 338.

[213] Aviva Aron-Dine, Liran Einav & Amy Finkelstein, *The RAND Health Insurance Experiment, Three Decades Later*, 27 J. ECON. PERSP. 197, 200 (2013) (noting that a focus of the RAND HIE was to measure the elasticity of demand for health insurance due to moral hazard, as defined by Pauly).

[214] *See, e.g.*, *id.* at 197 (noting that RAND is still the "gold standard"); Michael E. Chernew & Joseph P. Newhouse, Commentary, *What Does the RAND Health Insurance Experiment Tell Us About the Impact of Patient Cost Sharing on Health Outcomes?*, 14 AM. J. MANAGED CARE 412, 412 (2008) (referring to RAND HIE as the "gold standard").

[215] Mark V. Pauly, *Forward*, 26 J. HEALTH POL. POL'Y & L. 829, 830 (2001).

[216] Mark V. Pauly, *Insurance and the Demand for Medical Care*, *in* THE OXFORD HANDBOOK OF HEALTH ECONOMICS 354, 367 (Sherry Glied & Peter C. Smith eds., 2011).

The RAND HIE was prompted by debates about "free" health care and the potential use of deductibles in the Medicare and Medicaid programs to hold down costs.[217] In 1971, the federal government hired the RAND Corporation, a private research institute, to conduct the health insurance experiment.[218] The study, which lasted about a decade, created numerous health insurance plans with a range of cost-sharing obligations and levels of coverage. It placed more than 2,000 non-elderly families into different insurance plans and tracked their use of medical care for several years.[219] Some of the families were enrolled in plans that offered medical care with no deductible or other cost sharing (called "free" care). Other families had various levels of cost sharing, some reaching up to 95%.[220] Families participated in the experiment for three to five years.[221]

The experiment found that cost sharing reduced the use of nearly all health services.[222] The study also found that the lower consumption of medical care associated with higher cost sharing had only a minimal effect on the health of most plan members.[223] For the poor and sick, however, cost sharing was found to be "harmful, on average."[224] But, as Beatrix Hoffman has observed, "the finding that 'the reduced service use under the cost-sharing plans had little or no net adverse effect on health for the average person' received the most attention."[225] Indeed, some

[217] *See* NEWHOUSE & THE INS. EXPERIMENT GRP., FREE FOR ALL, *supra* note 210, at 3-4; RAND HEALTH, THE HEALTH INSURANCE EXPERIMENT 1 (2006), https://www.rand.org/content/dam/rand/pubs/research_briefs/2006/RAND_RB9174.pdf [https://perma.cc/T5DS-8VAW].

[218] *See* NEWHOUSE & THE INS. EXPERIMENT GRP., FREE FOR ALL, *supra* note 210, at 4.

[219] *Id.* at 8.

[220] *Id.* at 9-10. Families were reimbursed for any financial loss they incurred. *Id.* at 12.

[221] *Id.* at 8.

[222] *Id.* at 338 (noting that cost-sharing reduced use of most services and goods, including physician visits, hospital admissions, prescriptions, dental visits, and mental health services, with the exception of hospital admissions of children).

[223] *See* Joseph P. Newhouse, *Consumer-Directed Health Plans and the RAND Health Insurance Experiment*, 23 HEALTH AFF. 107, 108 (2004) ("For most people enrolled in the RAND experiment, who were typical of Americans covered by employment-based insurance, the variation in use across the plans appeared to have minimal to no effects on health status.").

[224] *Id.* For instance, low-income people with high blood pressure enrolled in a plan with reduced cost sharing, but still faced a 10 percent increase in the likelihood of death. *Id.* at 108-09.

[225] Hoffman, *supra* note 146, at 520 (quoting NEWHOUSE & THE INS. EXPERIMENT GRP., FREE FOR ALL, *supra* note 210, at 339).

advocates of CDHPs simply ignore the harms of cost-sharing discovered by RAND HIE researchers.[226]

It is important to recognize that the RAND HIE, like Pauly's model, had several critical limitations. First, the RAND HIE tells us nothing about medical price or how health care providers might respond to a widespread increase in patient cost sharing. As the Congressional Office of Technology Assessment noted in a 1993 report on cost-sharing and the RAND HIE:

> [T]he HIE could not examine how providers would respond to national-scale changes in patient cost-sharing. This dynamic could have important cost implications if, for example, widespread increases in patient cost-sharing diminished demand for health care services and providers responded by increasing their fees or the volume of services they provide to their patients.[227]

Second, the RAND HIE does not adequately inform us about cost-sharing effects on patients with substantial health care needs, such as patients with chronic conditions.[228] The sample size of the study was simply too small to adequately measure how cost sharing affects patients with substantial health care needs.[229] Also, the diagnosis and treatment of patients with chronic conditions is substantially different today than it was at the time of the study.[230] For these reasons, Joseph P. Newhouse, a prominent economist who participated in the RAND HIE, later disavowed high cost-sharing for patients suffering from chronic conditions.[231] Finally, even if the moral hazard problem is huge for less costly and predictable medical care that patients can opt in or

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[226] *See, e.g.*, John C. Goodman, *High-Deductible Health Insurance: The Good, the Bad and the Ugly*, FORBES (May 11, 2018, 6:19 AM EDT), https://www.forbes.com/sites/johngoodman/2018/05/11/high-deductible-health-insurance-the-good-the-bad-and-the-ugly [perma.cc/MGT7-5Q75] ("The original RAND study found no ill health effects from high deductible insurance.").

[227] OFFICE OF TECH. ASSESSMENT, U.S. CONG., OTA-BP-H-112, BENEFIT DESIGN IN HEALTH CARE REFORM: PATIENT COST-SHARING 26 (1993) [hereinafter HEALTH CARE REFORM].

[228] As noted above, there was evidence that people who were poor and sick were worse off because of cost-sharing. *See supra* note 224 and accompanying text.

[229] *See* HEALTH CARE REFORM, *supra* note 227, at 7.

[230] *See* Chernew & Newhouse, *supra* note 214, at 413 ("[O]ver time diseases that were once untreatable or considered acute illnesses have become chronic in nature as technology has advanced, exacerbating the negative consequences associated with higher cost sharing.").

[231] *See id.*

out of, such as physician office visits and eyeglasses, moral hazard is not a significant factor for the high cost, lifesaving medical procedures such as kidney or bone marrow transplants, appendectomies, and coronary angioplasties.[232] These types of treatments are the main drivers of medical costs, not the less costly medical care that patients can opt out of. A small portion of the population is responsible for a large share of health care spending. About 5% of the population accounts for about half of all health care spending per year.[233]

* * *

Pauly's model and the RAND HIE did not immediately spur the CDHP movement. The push for CDHPs first emerged in the 1990s following the collapse of managed care.[234] Insurers, "weary of being criticized for what is too often perceived as overzealous actions to control costs in their managed care plans" were "happy to turn some key decisions over to consumers. . . ."[235] Insurance plans imposed few limits on access to care, but began requiring insureds to pay an increasingly share of their medical bills out of pocket though deductibles and other forms of cost-sharing.[236] But this response was *ad hoc* and lacked a defining philosophy.[237] There was little in the way of new thinking about health plans following the demise of managed care and the collapse of the Clinton health plan.[238] This intellectual void, combined with steadily rising health insurance premiums[239] opened the door for CDHPs as free-

[232] *See* Nyman, *supra* note 175, at 764, 766.

[233] Bradley Sawyer & Gary Claxton, *How Do Health Expenditures Vary Across the Population?*, PETERSON-KFF HEALTH SYS. TRACKER (Jan. 16, 2019), https://www.healthsystemtracker.org/chart-collection/health-expenditures-vary-across-population [https://perma.cc/6PTY-JS5C].

[234] *See* JOST, *supra* note 19, at 17; Robert J. Blendon, Mollyann Brodie, John M. Benson, Drew E. Altman, Larry Levitt, Tina Hoff & Larry Hugick, *Understanding the Managed Care Backlash*, 17 HEALTH AFF. 80, 83-84 (noting that the revolt against managed care was propelled by the public's perception that such plans limited access to beneficial care).

[235] Arnold J. Rosoff, *Consumer-Driven Health Care*: *Questions, Cautions, and an Inconvenient Truth*, 28 J. LEGAL MED. 11, 27-28 (2007) (citing James C. Robinson, *The End of Managed Care*, 285 JAMA 2622-24 (2001)).

[236] *See* KIM D. SLOCUM, CONSUMER DIRECTED HEALTH CARE: A 360 DEGREE VIEW 54-55 (2008).

[237] *See id.* at 55 (noting that the immediate response of insurers and employers "lacked a unifying principle").

[238] *See* Theda Skocpol, *The Rise and Resounding Demise of the Clinton Plan*, 14 HEALTH AFF. 66, 67, 79 (1995).

[239] Health insurance premiums rose an average of about 6 percent per year through the 1990s. *See* Rabah Kamal, Daniel McDermott & Cynthia Cox, *How Has U.S. Spending*

market advocates looked to Pauly's model and the RAND HIE as a basis to shape health policy.

## III. Economism and CDHPs

This Part describes economism and its role in the development of CDHPs. Section A explains how CDHP theory grew from an anti-regulation, free-market political movement that favored a consumer-driven capitalist market that encouraged competition, consumer choice, and was directed by market price, not regulation. Section B illustrates how free-market advocates co-opted language straight from Pauly's moral hazard theory and the RAND HIE to develop CDHP theory. Section C then turns to economism and the simplified economics relied upon CDHP advocates when they forged their theory of consumer-driven health care.

### *A. Free Market Economics*

CDHP theory is an outgrowth of an anti-regulation, free-market movement initiated in the 1940s by Austrian economists Ludwig von Mises and Friedrich Hayek, who had relocated to the U.S. Driven by suspicions of increasing government regulation and fears of socialism, von Mises and Hayek promoted their theory of a consumer-driven capitalist market that encouraged competition, consumer choice, and was directed by market price, not regulation.[240] Von Mises and Hayek attracted followers, including economist Milton Friedman and the "Chicago school" of economists, for whom a free-market, consumer-driven approach to economics provided a powerful counter to New Deal liberalism.[241] Free-market economics were also adopted and pushed by a variety of conservative institutions, such as the Foundation for Economic Education, the American Enterprise Institute, the Heritage Foundation, the Manhattan Institute, and the CATO Institute, which were bankrolled by large corporations and wealthy individuals whose economic interests closely aligned with the anti-regulation ideas of the free-market economists.[242]

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*on Healthcare Changed Over Time?*, PETERSON-KFF HEALTH SYS. TRACKER (Dec. 20, 2019), https://www.healthsystemtracker.org/chart-collection/u-s-spending-healthcare-changed-time/#item-nhe-trends_average-annual-growth-rate-of-spending-per-enrolled-person-in-private-insurance-medicare-and-medicaid [https://perma.cc/RMK6-DU8Z].

[240] KWAK, *supra* note 35, at 37-40.

[241] *See id.* at 40-42.

[242] *Id.* at 44-45.

The logic — and appeal — of free-market economics rests on the simplicity of the laws of supply and demand. Prices for goods and services should be determined by consumers who buy in an open market not governed state regulation. Buyers, driven by their own preferences and cost-benefit analyses, only purchase goods and services they value.[243] Since no one is forced to trade in the market, sellers only enter into transactions that make them better off. This arrangement allows prices to adjust until supply equals demand, pushing the market to its optimal level.[244] Government regulation, however, can impair the efficient operation of the market and prevent people from engaging in mutually beneficial transactions.

Government regulations (such as health or safety requirements) increase sellers' costs, forcing them to raise their prices.[245] Buyers are then forced to pay a higher price. But buyers presumably do not want the regulated product at the higher price. If the buyers did, they would have already demanded (through the market) that sellers meet the requirements the government sought to impose through regulation. Thus, government regulation, though well-meaning, makes everyone worse off because it raises market prices in a way that does not increase the value to the consumer.[246]

### *B. Free Market Health Care*

By the 1980s a number of free market advocacy organizations were actively promoting privatization and deregulation across a number of policy areas, including health insurance.[247] One of the early leaders of the movement was John Goodman,[248] who along with Gerald Musgrave, published the book *Patient Power* in 1992.[249] *Patient Power* argued that "solving America's health care crisis requires undoing the harmful distortions introduced into the system by government and that only a market-based system will work."[250] Goodman's solution was a consumer-driven approach to health care, which includes catastrophic (i.e., high deductible) health insurance, tax-advantaged accounts to

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[243] *See id.* at 18-24 (showing how economic theory predicts prices will equal the marginal cost of producing the item sold).

[244] *See id.* at 18-23.

[245] *See id.* at 132 ("From the standpoint of economism . . . financial regulations simply prevent people from engaging in mutually beneficial transactions. . . .").

[246] *See id.* at 133-34.

[247] *See* JOST, *supra* note 19, at 81.

[248] *Id.*

[249] JOHN C. GOODMAN & GERALD L. MUSGRAVE, PATIENT POWER (1992).

[250] *Id.* at ix.

save money for out-of-pocket medical costs, and a decrease in government regulation.[251]

Goodman is just one of many proponents of a free-market approach to health care.[252] These advocates don't agree on all points, but they all share certain underlying assumptions about the economy and health care.[253] These assumptions include: the belief that simple microeconomic models, illustrated by the law of supply and demand, best explain human behavior;[254] that medical care is like any other good or service and is subject to the laws of supply and demand;[255] a competitive market will make health care prices fall;[256] that health insurance is responsible for high medical prices;[257] and that first dollar coverage generates moral hazard.[258] The solutions proposed by these free-market advocates universally include catastrophic health insurance coverage;[259] when patients are forced to purchase medical care with their own money, they will generate competition among health care providers and drive prices down.[260]

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251 *Id.* at 38-72.

252 *See, e.g.*, JOHN F. COGAN, R. GLENN HUBBARD & DANIEL P. KESSLER, HEALTHY, WEALTHY, AND WISE: 5 STEPS TO A BETTER HEALTH CARE SYSTEM 33 (2d ed. 2001) (proposing to deregulate health insurance markets); REGINA HERZLINGER, WHO KILLED HEALTH CARE?: AMERICA'S $2 TRILLION MEDICAL PROBLEM – AND THE CONSUMER-DRIVEN CURE (2007) (arguing for a consumer-driven health care system); CHARLES SILVER & DAVID A. HYMAN, OVERCHARGED: WHY AMERICANS PAY TOO MUCH FOR HEALTH CARE (2018) (arguing health care should be more like retail sales).

253 JOST, *supra* note 19, at 30.

254 *Id.* at 131.

255 *See* HERZLINGER, *supra* note 252, at 9 ("[A]s we all learned in our introductory economics courses, markets are equilibrated by *marginal* consumers, not by *average* ones. The discerning, last-to-buy group consists of the picky, assertive people . . . who drive down price and improve quality for all the rest of us.").

256 *See* JOST, *supra* note 19, at 32-33.

257 *See id.* at 35.

258 *See id.*

259 *E.g.*, SILVER & HYMAN, *supra* note 252, at 387-405.

260 *See, e.g.*, GOODMAN & MUSGRAVE, *supra* note 249, at 29-31 (arguing that under consumer directed health care consumers will buy only the products they need and will compete for lower prices through bargaining for lower prices, thereby bringing down healthcare utilization and prices to the appropriate level); SILVER & HYMAN, *supra* note 252, at 399 ("Insurance . . . stimulates demand and compounds the pricing problem by paying far more than consumers would if they were spending their own hard-earned money."); *Id.* at 400 (asserting that medical services such as surgery would be less expensive if paid for directly by consumers rather than through insurance); *Id.* at 354 (noting that "patients could put overpriced providers out of business by refusing to use them" but do not do so because of insurance).

The arguments used by CDHP advocates come straight from the language of Pauly's moral hazard theory and the RAND HIE. As Allan Hubbard, an assistant for economic policy to President George W. Bush and director of the National Economic Council, noted in a 2006 op-ed for the New York Times, "Health care is expensive because the vast majority of Americans consume it as if it were free."[261] He continued, "To control health care costs, we must give consumers an incentive to spend money wisely. We can do this by encouraging the purchase of high-deductible policies."[262] As economist John Nyman noted, "The theory of the moral-hazard welfare loss is unmistakable in this rhetoric."[263] Then, Hubbard transitioned from the welfare benefits of high deductibles to medical prices:

> Imagine how the world might look if patients, armed with information about the price and quality of health care, set out to find the best possible value. We saw this with Lasik eye surgery, a procedure not covered by most insurance plans. Its price fell by almost half . . . as more doctors began providing the service and customers shopped around. Informed consumers could bring down costs throughout the health care industry by choosing only high-value care, making providers raise quality and lower prices to compete for their business. . . .[264]

### *C. Economism and CDHPs*

#### 1. Economism

While the free-market approach to CDHPs appears to be driven by fundamental economic principles, it largely relies on a simplified economic framework that James Kwak calls "economism."[265] The idea is that consumers and markets "behave according to the abstract, two-dimensional illustrations of an Economics 101 textbook, even though the assumptions behind those diagrams virtually never hold true in the real world."[266] Economism is an ideological tool to justify limits on government regulation and shape public policy. Despite its unrealistic assumptions, economism helps create theories that drive policy

[261] Hubbard, *supra* note 55.
[262] *Id.*
[263] Nyman, *supra* note 175, at 778.
[264] Hubbard, *supra* note 55.
[265] KWAK, *supra* note 35, at 13.
[266] *Id.* at 6-7.

decisions.[267] Its allure is based on its apparent scientific basis, its simplicity, and its appeal to our distrust of government. Using the economic terms and theory, it reduces the problems of health care markets to economic first principles that dictates a simple solution: high deductibles. By applying the laws of supply and demand, we can maximize social welfare by ensuring that consumer preferences are met, the prices and quantity of goods and services are optimal, and resources are put to their best use.[268]

### 2. The Laws of Supply and Demand

The "laws" of supply and demand[269] lurk behind the logic of CDHP proponents.[270] When free-market advocates argue that reduced consumption of medical goods and services will bring down prices, they are reciting straight from the economism script. Figures 4 and 5, traditional microeconomic supply and demand diagrams, illustrate the logic behind the CDHP price-reduction assertions.

Figure 4 shows the market for medical care in the absence of health insurance. Consumers pay full price market price at the point of service for medical care. Medical prices and the quantity of services provided will be optimal at the intersection of the demand and supply curve, the equilibrium point (P,Q).[271]

[267] *See id.*

[268] *Id.* at 6-8.

[269] These "laws" are not laws at all. ERIC D. BEINHOCKER, THE ORIGIN OF WEALTH 61 (2006) (noting that the law of supply and demand isn't a law, instead it is "the rough approximation of supply and demand"). *See generally* KWAK, *supra* note 35, at 37-40 (discussing the history of economism and how it uses supply and demand to justify policy decisions).

[270] *See, e.g.*, HERZLINGER, *supra* note 252, at 167-68 (describing how consumer driven health care can alter consumer demand as well as the supply of care).

[271] IRVIN B. TUCKER, SURVEY OF ECONOMICS 98 (9th ed. 2014).

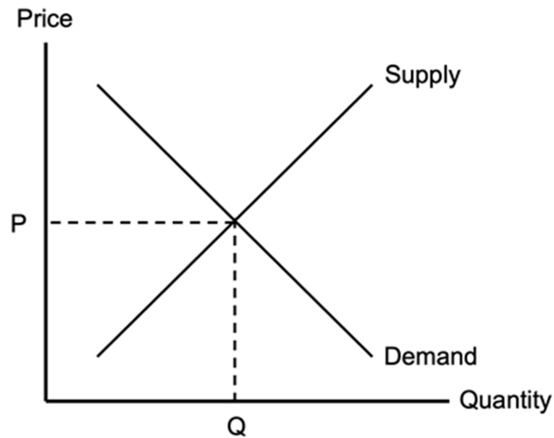


Figure 4

Figure 5 shows the effect of health insurance on the market for health care. Since insurance lowers the cost of health care at the point of service, demand for health care will increase. This pushes the demand curve out (from $Demand_1$ to $Demand_2$). This shift establishes a new equilibrium point ($P_2$,$Q_2$), which represents an increase in both the quantity (from $Q_1$ to $Q_2$) and price (from $P_1$ to $P_2$) of medical services consumed. The result is an excess consumption of low value health care ($Q_2$ - $Q_1$) and a bump in price ($P_2$ - $P_1$).

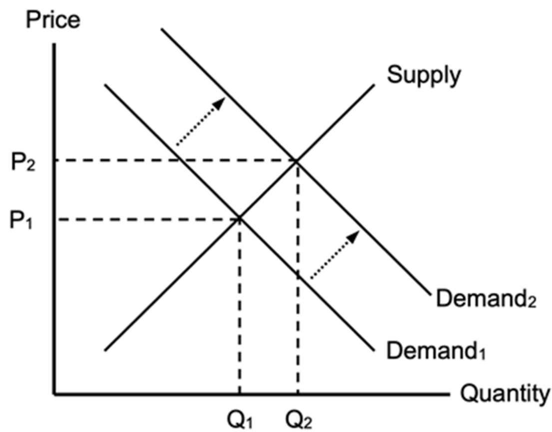


Figure 5

By imposing a large deductible, the demand curve is pushed back down toward $Demand_1$. This shift establishes an equilibrium point ($P_1$,$Q_1$), which represents a decrease in both the quantity (from $Q_2$ to

$Q_1$) and price (from $P_2$ to $P_1$) of medical services consumed. This is the core of the CDHP price-reduction argument.

### *D. History and the Flaws of CDHP Price Theory*

As Timothy Jost has noted, the theory is not supported by history. Before health insurance, patients paid the full medical bill. Nevertheless, medical prices went up dramatically in the early twentieth century as medical treatment improved and organized medicine limited competition through medical licensure laws and professional norms.[272] Direct payment by patients did not control prices. As doctors and hospitals became more effective in the early twentieth century, patients "were willing to pay for their care and services. There is little evidence that consumers resisted organized medicine's effort to escape market competition."[273] Moreover, deductibles are not new; they have been used in health insurance since 1949 and were used widely until the managed care era.[274] Medical prices still went up.

## IV. FAILURE OF THE CDHP PRICE THEORY

When describing the folly of economism, James Kwak tells the story of Pangloss and Candide in Voltaire's novel *Candide*.[275] Pangloss, an exuberant optimist, claimed that we live in the "best of all possible worlds."[276] Candide, Pangloss' student, adopts and clings to Pangloss' misguided optimism, despite suffering repeated misfortunes.[277] Like Pangloss and Candide, free-marketeers blindly follow a misguided CDHP philosophy, despite ample evidence that the theory is flawed.

Viewed from a Panglossian perspective, a health insurance market that has properly aligned consumer purchasing incentives through sufficient deductibles will inexorably be driven to efficiency, with lower prices, much like any other retail market. The retail model, where consumers spend their own money for goods and services, "works extremely well for consumers. It puts them in the driver's seat by pressuring sellers to deliver the goods and services consumers want at prices they can afford."[278] A retail approach can, they argue, also work

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[272] *See* JOST, *supra* note 19, at 46-47.
[273] *Id.* at 47.
[274] *Id.* at 69. Once HMOs and managed care began to fade, deductibles returned. *Id.* at 66-69.
[275] VOLTAIRE, CANDIDE OR OPTIMISM (Norman L. Torrey ed., 1946).
[276] *Id.* at 2.
[277] KWAK, *supra* note 35, at 3.
[278] SILVER & HYMAN, *supra* note 252, at 338.

for health care. "When we pay for health care the same way we pay for other services — by spending our own money instead of an insurer's — good things happen: prices fall and quality improves as providers compete for business."[279]

This is the argument Allan Hubbard made when he used the LASIK eye surgery ("LASIK") example. CDHP advocates offer the LASIK case and several other retail market examples, such as cosmetic procedures and vasectomies, to make their case.[280] Unlike medical services covered by insurance, these procedures have become more affordable over time.[281] Indeed, in some cases, prices are lower for the same product when insurance does not pay versus when insurance does pay.[282] For this reason, advocates suggest that the medical market ought to operate more like the retail chains CVS, WalMart, or Costco.[283]

Unfortunately, the limited examples offered by CDHP advocates fail to make a convincing case that CDHPs will control medical prices more broadly. First, the prices typically offered in these retail examples are linked to a specific package of services. For example, LASIK surgery, breast augmentation, and vasectomy procedures are offered at a set price.[284] When medical treatments are defined and limited or packaged, pricing and pricing comparison becomes easier. Perhaps all medical care ought to be provided this way, but it is not. Medical care is still overwhelmingly sold piecemeal, on a procedure-by-procedure basis.[285] Second, the procedures used in these examples are not urgent, or even necessary; they are discretionary procedures for patients with the necessary health, time, and cash. This makes these procedures easy to

[279] *Id.* at 320.

[280] *See, e.g.*, *id.* at 318-20 (noting the contrast in price between hospitals and retail providers for vasectomies, breast augmentation, and LASIK).

[281] *See id.* at 320.

[282] *See* Victoria Knight, *The Price of Implants — It Depends on Who's Paying*, CHI. TRIB. (Dec. 28, 2018, 8:55 AM), https://www.chicagotribune.com/lifestyles/health/sc-hlth-hospital-mark-ups-implants-0102-story.html [https://perma.cc/T7DJ-S2MB] (noting that a set of breast implants cost $7000 when paid for by an insurer, but only $3000 if paid for by a consumer).

[283] HERZLINGER, *supra* note 252, at 73-78; SILVER & HYMAN, *supra* note 252, at 315-40.

[284] *See* SILVER & HYMAN, *supra* note 252, at 315, 319 (noting vasectomies advertised for $590 and breast augmentation advertised for $4600 to $5600).

[285] *See* William M. Sage, *Assembled Products: The Key to More Effective Competition and Antitrust Oversight in Health Care*, 101 CORNELL L. REV. 609, 619 (2016) (noting that while other industries offer "complex products . . . sold as assembled units that consumers understand . . . that can be compared to one another," health care "emphasizes incomplete process steps and isolated components rather than assembled products").

price for providers who offer these products to select low risk, affluent buyers.

Moving beyond these limited examples, the argument that CDHPs can control medical prices fails spectacularly when the actions of providers and insurers in the larger medical economy are considered. This Part provides some powerful examples of how medical providers and insurers take actions to increase prices *regardless of patient demand*, and in some cases, because of it. For ease of exposition, the examples are divided into three broad categories: (1) lack of competition; (2) shenanigans to maintain high prices; and (3) evolution of insurance products. To be clear, this Part does not provide an exhaustive list of price-raising behavior in the in the larger medical economy. Instead, it provides compelling illustrations of how medical providers and insurers take steps to drive up prices regardless of patient demand.

### A. *Lack of Competition*

Under the CDHP theory, price and utilization are linked: inappropriate insurance incentives drive up demand for medical care, which then pushes prices higher. There is little doubt about the effect of insurance on consumption; empirical studies demonstrate that people with health insurance with low cost sharing consume more medical services.[286] But the U.S. also has high prices. Prices for health care services and drugs are generally higher in the U.S. than most other countries.[287] These high prices are not driven by excessive utilization. In their seminal 2003 article, "It's the Prices, Stupid," Gerard Anderson and colleagues showed that the U.S. spends substantially more than other nations on health care as a share of gross domestic product despite having fewer hospitals, physicians, and hospitalizations per capita than other nations.[288] Since the U.S. spends more despite providing less care, the authors concluded that the spending differences were likely attributable to price differences.[289] In other words, high prices in the U.S. explain why we spend more on health care than other countries. Subsequent research concurs: the U.S. spends more on health care than

[286] *See* Liran Einav & Amy Finkelstein, *Moral Hazard in Health Insurance: What We Know and How We Know It*, 16 J. EUR. ECON. ASS'N 957, 963-71 (2018) (reviewing experimental and quasi-experimental studies of moral hazard in health insurance); *Id.* at 971 (noting that there is "compelling evidence that moral hazard in health insurance exists: healthcare spending is higher when insurance coverage increases").

[287] *See* Anderson et al., *supra* note 44, at 90.

[288] *See id.* at 92-98.

[289] *See id.* at 103.

other wealthy nations due to its high prices, *not* utilization.[290] The latest annual Health Care Cost and Utilization Report[291] from the Health Care Cost Institute ("HCCI") supports this conclusion. Using data from its commercial claims database, HCCI found that between 2014 and 2018, total annual per person health care spending for individuals under sixty-five covered by employer-sponsored insurance increased by 18.4%.[292] While spending growth was driven by both price and utilization increases, price accounted for three-quarters of the cumulative spending increase.[293] This matches results from prior reports, which showed that cumulative spending increases were entirely or almost entirely attributable to price increases rather than increases in utilization.[294] As will be shown next, these price increases are driven by a lack of competition.[295]

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[290] *See* Gerard F. Anderson, Peter Hussey & Varduhi Petrosyan, *It's Still the Prices, Stupid: Why the US Spends So Much on Health Care, and a Tribute to Uwe Reinhardt*, 38 HEALTH AFF. 87, 87 (2019); Irene Papanicolas, Liana R. Woskie & Ashish K. Jha, *Health Care Spending in the United States and Other High-Income Countries*, 319 JAMA 1024, 1033 (2018) (finding that U.S. health spending was nearly twice as high as spending in the other countries despite similar utilization rates).

[291] HEALTH CARE COST INST., 2018 HEALTH CARE COST AND UTILIZATION REPORT 1, 3 (2020), https://healthcostinstitute.org/images/pdfs/HCCI_2018_Health_Care_Cost_and_Utilization_Report.pdf [https://perma.cc/9M6Q-7STC].

[292] *See id.* at 2.

[293] *Id.*

[294] *See, e.g.*, HEALTH CARE COST INST., 2017 HEALTH CARE COST AND UTILIZATION REPORT 3 (2019), https://healthcostinstitute.org/annual-reports/2017-health-care-cost-and-utilization-report [https://perma.cc/2NGX-CVQJ] (indicating that price increases drove cumulative per-person spending growth of 17.1% from 2013-2017; utilization declined 0.2% between 2013 and 2017); HEALTH CARE COST INST., 2016 HEALTH CARE COST AND UTILIZATION REPORT 3 (2018), https://www.healthcostinstitute.org/research/annual-reports/entry/2016-health-care-cost-and-utilization-report [https://perma.cc/MN3U-PRGH] (noting that from 2012 to 2016, prices for inpatient, outpatient, professional services, and drugs increased 24.3%, 17.7%, 14.6%, and 24.9%, respectively, utilization rates for inpatient, outpatient, professional services went down, -12.9%, -0.5%, and -2.9%, respectively, while drug use increased moderately by 1.8%); HEALTH CARE COST INST., 2015 HEALTH CARE COST AND UTILIZATION REPORT, at i (2016), https://healthcostinstitute.org/images/pdfs/2015-HCCUR-11.22.16.pdf [https://perma.cc/4948-5XQT] (noting spending changes in 2015 were mainly due to price growth).

[295] It should also be noted that a lack of competition is a fundamental problem for CDHP theory because a core assumption of the model is a competitive market. *See* JOST, *supra* note 19, at 32-33.

1. Concentrated Markets for Hospitals and Physicians

Nearly 40% of premium dollars cover hospital stays and physician services.[296] Despite flat or small increases in utilization, prices for hospital stays and physician services have increased at a rate that far exceeds inflation. Hospital prices for inpatient and outpatient care grew 42% and 25%, respectively, from 2007 to 2014.[297] During the same period, physician prices for hospital-based inpatient and outpatient care, rose 18% and 6%, respectively.[298] Mergers and consolidations have produced highly concentrated markets for hospitals and physicians, and empirical studies show that concentrated markets drive up prices.[299]

Concentration in U.S. hospital markets is "pervasive."[300] Nearly half of U.S. hospital markets are highly concentrated, one-third are moderately concentrated, and *only one-sixth* are not concentrated.[301] Hospitals in concentrated markets charge significantly higher prices than hospitals in competitive markets.[302] Indeed, hospitals in concentrated markets had higher prices and were able to negotiate more favorable payment terms with insurers, without showing any increased efficiencies or economies of scale that would benefit consumers.[303]

[296] *See Where Does Your Health Care Dollar Go?*, AHIP (May 22, 2018), https://www.ahip.org/health-care-dollar/ [https://perma.cc/5WN8-LJGD] [hereinafter AHIP] (estimating 16.1¢ and 22.2¢ of every premium dollar pays for hospital stays and physician services, respectively, based on average annual amounts paid by commercial health insurance plans from 2014 to 2016).

[297] Zack Cooper, Stuart Craig, Martin Gaynor, Nir J. Harish, Harlan M. Krumholz & John Van Reenen, *Hospital Prices Grew Substantially Faster than Physician Prices for Hospital-Based Care in 2007–14*, 38 HEALTH AFF. 184, 186 (2019).

[298] *Id.*

[299] *See, e.g.*, Daniel R. Austin & Laurence C. Baker, *Less Physician Practice Competition Is Associated with Higher Prices Paid for Common Procedures*, 34 HEALTH AFF. 1753, 1756-58 (2015) (finding concentration of physician practices was significantly associated with prices for most of procedures studied); Zack Cooper, Stuart V. Craig, Martin Gaynor & John Van Reenen, *The Price Ain't Right? Hospital Prices and Health Spending on the Privately Insured*, 134 Q.J. ECON. 51, 55 (2019) (finding hospital prices are positively associated with hospital market power).

[300] *See* David M. Cutler & Fiona Scott Morton, *Hospitals, Market Share, and Consolidation*, 310 JAMA 1964, 1966 (2013).

[301] *Id.*

[302] *See* Cooper et al., *supra* note 299, at 89, 94.

[303] *See* Thomas (Tim) Greaney, *Competition Policy and Organizational Fragmentation in Health Care*, 71 U. PITT. L. REV. 217, 231 (2009) ("Consolidation in local hospital markets does not appear to have produced significant scale economies or other efficiencies that would benefit consumers. The literature on multihospital system performance shows little evidence of improvement in cost per admission, profitability or service provision to the community in the form of charity.").

Hospitals are not only consolidating, they are also aggressively snapping up physician practice groups. Between July 2016 and January 2018, hospitals acquired 8,000 medical practices.[304] In addition, another 14,000 physicians left private practice to work directly for hospitals.[305] By 2018, hospitals owned 80,000 physician practices[306] and employed 44% of all U.S. physicians, up from only 26% in 2012.[307]

Acquisition of physicians and physician groups increases medical costs three ways. First, the integration of hospitals and physician groups increases a hospital's market power, leading to higher hospital prices.[308] Second, physician prices increase after acquisition.[309] Third, referral patterns change for physicians following acquisition. Acquired physicians are more likely to refer patients to higher-cost facilities within their employer's network,[310] which both drives up costs and dampens competition from other hospitals.[311]

Even for physicians not acquired by hospitals, there is consolidation, resulting in higher physician prices.[312] Physician groups in some parts of the U.S. are much more concentrated than in others.[313] Certain

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304 PHYSICIANS ADVOCACY INST., UPDATED PHYSICIAN PRACTICE ACQUISITION STUDY: NATIONAL AND REGIONAL CHANGES IN PHYSICIAN EMPLOYMENT 2012–2018, at 5 (2019), http://www.physiciansadvocacyinstitute.org/Portals/0/assets/docs/021919-Avalere-PAI-Physician-Employment-Trends-Study-2018-Update.pdf [https://perma.cc/3LWA-PWBV].

305 *Id.*

306 *See id.* at 12.

307 *See id.* at 11.

308 *See* Laurence C. Baker, M. Kate Bundorf & Daniel P. Kessler, *Vertical Integration: Hospital Ownership of Physician Practices Is Associated with Higher Prices and Spending*, 33 HEALTH AFF. 756, 762 (2014) (finding that an increase in the market share of hospitals that own physician practices was associated with 2-3% increases in prices).

309 *See* Cory Capps, David Dranove & Christopher Ody, *The Effect of Hospital Acquisitions of Physician Practices on Prices and Spending*, 59 J. HEALTH ECON. 139, 140 (2018) (finding a 14.1% increase in prices following acquisition by hospital).

310 *See* Laurence C. Baker, M. Kate Bundorf & Daniel P. Kessler, *The Effect of Hospital/Physician Integration on Hospital Choice* 17 (Nat'l Bureau of Econ. Research, Working Paper No. 21497, 2015), https://www.nber.org/papers/w21497.pdf [https://perma.cc/XQC5-BT8N] (finding that ownership by a hospital "dramatically increases" likelihood that acquired doctor will admit patients at own hospital instead of another hospital).

311 *See* MARTIN GAYNOR, THE HAMILTON PROJECT, WHAT TO DO ABOUT HEALTH-CARE MARKETS? POLICIES TO MAKE HEALTH-CARE MARKETS WORK 5 (2020), https://www.brookings.edu/wp-content/uploads/2020/03/Gaynor_PP_FINAL.pdf [https://perma.cc/TW5T-BXPY] (surveying evidence).

312 *See* Abe Dunn & Adam Hale Shapiro, *Do Physicians Possess Market Power?*, 57 J.L. & ECON. 159, 186 (2014) (indicating that physicians in most concentrated markets charge 14% to 30% more than physicians in least concentrated markets).

313 *See, e.g.*, John E. Schneider, Pengxiang Li, Donald G. Klepser, N. Andrew Peterson, Timothy T. Brown & Richard M. Scheffler, *The Effect of Physician and Health*

physician groups, such as specialists, can be highly concentrated[314] and can command higher prices from health insurers,[315] sometimes 20% to 50% higher than prices paid to physician groups in non-concentrated markets.[316]

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CDHPs require competition to drive prices down. Absent meaningful competition, CDHPs have no power to drive down hospital or physician prices. CDHP theory also posits that medical prices are connected to demand. This data, however, demonstrates that our health care prices are not linked to consumer demand but are instead tied to market power. Despite the expansion of CDHPs since the early 2000s, the steady increase in the size of deductibles (more consumer power, as CDHP advocates might say), and the relatively flat level health care utilization of medical care over the last few years, medical prices have risen dramatically. Not only are CDHPs incapable of lowering prices, they cannot fix the underlying problems — consolidation of hospitals, acquisitions of physician practices, and consolidation of physician practices. With respect to controlling hospital and physician prices, CDHPs are a bust.

*Plan Market Concentration on Prices in Commercial Health Insurance Markets*, 8 INT'L J. HEALTH CARE FIN. & ECON. 13, 21, 23 (2008) (noting that California has highly concentrated markets for physician groups).

[314] Martin Gaynor, Kate Ho & Robert J. Town, *The Industrial Organization of Health-Care Markets*, 53 J. ECON. LITERATURE 235, 241 (2015).

[315] *See, e.g.*, Robert A. Berenson, Paul B. Ginsburg & Nicole Kemper, *Unchecked Provider Clout in California Foreshadows Challenges to Health Reform*, 29 HEALTH AFF. 699, 701, 703 (2010) (noting multispecialty physician groups increase "negotiating clout" with insurers); *see also* WILLIAM B. VOGT & ROBERT TOWN, ROBERT WOOD JOHNSON FOUND., HOW HAS HOSPITAL CONSOLIDATION AFFECTED THE PRICE AND QUALITY OF HOSPITAL CARE? 4 (2006), https://folio.iupui.edu/bitstream/handle/10244/520/no9researchreport.pdf [https://perma.cc/AR3E-5NME] (noting a strong correlation between hospital market concentration and rising costs of health insurance).

[316] *See* Martin Gaynor, *Competition Policy in Health Care Markets: Navigating the Enforcement and Policy Maze*, 33 HEALTH AFF. 1088, 1089 (2014) ("Hospital mergers that create a dominant system can lead to very large price increases, even as high as 40–50 percent."); MARTIN GAYNOR & ROBERT TOWN, ROBERT WOOD JOHNSON FOUND., THE IMPACT OF HOSPITAL CONSOLIDATION — UPDATE 2 (2012), http://www.rwjf.org/content/dam/farm/reports/issue_briefs/2012/rwjf73261 [https://perma.cc/YZ94-8QQK] ("The magnitude of price increases when hospitals merge in concentrated markets is typically quite large, most exceeding 20 percent.").

### B. Government-protected Monopoly Rights for Drug Manufacturers

High prices, rather than high utilization, are also a problem for pharmaceuticals sold in the U.S. Drug prices comprise roughly 23% of premium dollars.[317] Prices for drugs of all types and from all classes (brand-name, specialty, generics/oral or injectable) have outpaced general inflation over the last decade.[318]

One reason for high drug prices is the government-protected monopoly rights for drug manufacturers through patents. Intellectual property rights, such as patents, are thought necessary to allow manufacturers to recover their investments in research, development, and regulatory compliance and to realize a profit. Patents provides drug makers an incentive to innovate and develop new and beneficial products.[319] To promote innovation, patents provide an exclusive right to exclusively market a product and charge a price that exceeds the competitive market price.[320] But that also creates an incentive for patent holders, such as pharmaceuticals, to extend the exclusivity period using certain practices such as evergreening,[321] patent thickets,[322] and pay-for-

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[317] AHIP, *supra* note 296.

[318] Inmaculada Hernandez, Chester B. Good, David M. Cutler, Walid F. Gellad, Natasha Parekh & William H. Shrank, *The Contribution of New Product Entry Versus Existing Product Inflation in the Rising Costs of Drugs*, 38 HEALTH AFF. 76, 76 (2019).

[319] *See* Kewanee Oil Co. v. Bicron Corp., 416 U.S. 470, 480 (1974) (noting that patent laws promote innovation and progress "by offering a right of exclusion for a limited period as an incentive to inventors to risk the often enormous costs in terms of time, research, and development").

[320] *See* Fed. Trade Comm'n v. Actavis, Inc., 570 U.S. 136, 147 (2013) (noting that patent rights allow the patent holder to charge a higher-than-competitive price).

[321] Evergreening involves obtaining one or more new patents to cover a product when older patents are about to expire. *See* Rebecca S. Eisenberg, *The Role of the FDA in Innovation Policy*, 13 MICH. TELECOMM. & TECH. L. REV. 345, 354 (2007).

[322] Patent thickets are multiple overlapping patents on one product that create a "thicket" that deters potential competitors due to the time and cost necessary to challenging each patent. *See* Robin Feldman, *'One-and-Done' for New Drugs Could Cut Patent Thickets and Boost Generic Competition*, STAT (Feb. 11, 2019), https://www.statnews.com/2019/02/11/drug-patent-protection-one-done/ [https://perma.cc/3VP5-7RXW] (noting that "drug companies build massive patent walls around their products, extending the protection"); *see also* Valerie Bauman, *Pharma Pay-for-Delay Deals Called 'Cost of Doing Business,'* BLOOMBERG L. (Feb. 10, 2020, 2:30 AM), https://news.bloomberglaw.com/pharma-and-life-sciences/pharma-pay-for-delay-settlements-cost-of-doing-business [https://perma.cc/95DX-J775] ("AbbVie has more than 100 patents on Humira, creating what is often referred to as a 'patent thicket,' meaning biosimilar manufacturers would have to overturn all of those patents or agree to settle with the brand-name company.").

delay agreements.[323] These practices are anticompetitive because they delay the entry of cheaper generic drugs into the market and allow the manufacturer of the brand name drug to continue its exclusivity period and charge a supra-competitive price. While brand-name drugs comprise only 10% of all dispensed prescriptions in the United States, they account for 72% of drug spending.[324]

But extending the exclusivity period is not always necessary to maintain high prices for brand name drugs. A recent study found that rising prices for brand-name drugs were linked to existing drugs that had long been on the market. Insulin prices are a notable example. The vast majority of diabetics who need insulin use "analog" brands manufactured by three different drug makers: Novo Nordisk, Sanofi-Aventis, and Eli Lilly.[325] Their insulin products have been around for nearly two decades and all sell for about the same price — around $275 per vial.[326] These drugs sold for $20 to $40 per vial when introduced in the late 1990s and early 2000s and have not changed since then.[327] Yet, there has been no price competition between these insulin brands. Prices have increased in lockstep fashion due to shadow pricing, where competitors simply match each other's price increases.[328] As one drug researcher recently noted, "drugs are increasingly insensitive to competition,"[329] and "[p]rices are increasing because the market is bearing it."[330]

[323] Pay-for-delay agreements are monetary settlements made by the holder of an expiring patent to a potential generic competitor to delay the entry of a less expensive generic alternative into the market. *See* Erik Hovenkamp, *Antitrust Law and Patent Settlement Design*, 32 HARV. J.L. & TECH. 417, 434 (2019).

[324] Aaron S. Kesselheim, Jerry Avorn & Ameet Sarpatwari, *The High Cost of Prescription Drugs in the United States: Origins and Prospects for Reform*, 316 JAMA 858, 860 (2016).

[325] *See* Rebecca Robbins, *The Insulin Market Is Heading for a Shakeup. But Patients May Not Benefit*, PBS (Oct. 16, 2016, 10:07 AM EDT), https://www.pbs.org/newshour/health/insulin-market-shakeup-patients [https://perma.cc/8L6G-ZB3R].

[326] *See* Tiffany Stanley, *Life, Death and Insulin*, WASH. POST (Jan. 7, 2019), https://www.washingtonpost.com/news/magazine/wp/2019/01/07/feature/insulin-is-a-lifesaving-drug-but-it-has-become-intolerably-expensive-and-the-consequences-can-be-tragic [https://perma.cc/A5J4-38E7].

[327] *Id.* Sanofi's Lantus was $35 a vial when introduced in 2001. It is now $270. Novo Nordisk's Novolog was priced at $40 in 2001. It is now $289. In 1996, when Eli Lilly debuted its Humalog brand of insulin, the list price of a 10-milliliter vial was $21. The price of the same vial is now $275. *Id.*

[328] Robbins, *supra* note 325.

[329] Dylan Scott, *The Surprising Reason Drug Prices Are on the Rise*, VOX (Jan. 7, 2019, 4:10 PM EST), https://www.vox.com/policy-and-politics/2019/1/7/18172678/how-much-drug-prices-rise-voxcare [https://perma.cc/TCR7-LLWK].

[330] *Id.*

Even for generic drugs, prices have outstripped inflation. Between 2008 and 2015, the prices of almost 400 generic drugs increased by more than 1,000%.[331] Contributing to these high prices is the sharp increase in the costs of some older generic drugs manufactured by one drug maker with no competition. For example, in 2015, Turing Pharmaceuticals raised the price of Daraprim, a 63-year-old treatment for toxoplasmosis, by 5,500%.[332] Turing is the only maker of Daraprim.[333]

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CDHPs are also a bust with respect to controlling drug prices. Drug prices are driven by excess market power, which is the product of intellectual property laws, lockstep shadow pricing, and a lack of competition, among other things. And, as is the case in the hospital and physician markets, CDHPs are not capable of outmuscling the factors that drive up drug prices.

### *C. Shenanigans to Maintain High Prices*

Providers and drug manufacturers also take clever, but questionable steps to maintain their high prices. Most of these steps are invisible to consumers and therefore cannot be affected by market pressures resulting from CDHPs. This section provides three examples: (1) secret contract terms; (2) cost savings coupons; and (3) efforts to protect patents.

#### 1. Secret Contractual Terms

Contracts between providers and insurers are typically secret.[334] This allows providers with market power to demand secret terms that protect income and promote higher prices. For example, providers can require contract provisions that shift losses from government contracts to private insurers.[335] While such contract provisions do not directly affect

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[331] Kesselheim et al., *supra* note 324, at 860.

[332] *Id.*

[333] *Id.*

[334] *See* Marshall Allen, *Why Your Health Insurer Doesn't Care About Your Big Bills*, PROPUBLICA (May 25, 2018, 5:00 AM EDT), https://www.propublica.org/article/why-your-health-insurer-does-not-care-about-your-big-bills [https://perma.cc/QC88-A78M].

[335] *See, e.g.*, Final Order at 3-4, Examination of Blue Cross & Blue Shield of R.I., No. OHIC-2011-5 (R.I. Health Ins. Comm'r Oct. 11, 2011), http://www.ohic.ri.gov/documents/Targeted-Market-Conduct-Exam-Order-BCBS-and-Care-New-England.pdf [https://perma.cc/KXZ6-BUJ8] (discussing a situation where provider used market

prices for any given medical procedure, they essentially function as a bump in payment from the insurer to the provider if the terms set out the secret provision are met. The insurer, in turn, must then look to its insureds to recover those secret payments — by charging higher premiums. Even if patients with CDHPs use their plans as intended — they shop around, compare provider prices, and select the lowest cost provider — the CDHPs will not negate the operation of the secret contract provisions or protect the patients from the resulting premium increase.

Providers can also require secret contract restrictions, such as "anti-steering clauses that prevent insurers from steering patients to less-expensive or higher-quality healthcare providers."[336] Some contracts also contain clauses that limit the ability of insures to audit claims, prohibit insurers from providing price information to patients, allow hospitals to add extra fees, or prevent the insurer from excluding the provider from any of its plans.[337] These contract provisions drive up prices in ways that are hidden from patients and unaffected by the demand pressures CDHPs are supposed to create. For example, if an insurer and an employer wanted to develop an employee health insurance plan that could offer employees lower-priced coverage by excluding high-priced health providers, an insurer subject to one of these secret contract provisions would not be able to design the low-cost health plan because it has contracts with high-priced providers that bar the insurer from excluding those providers from any of its plans.[338]

2. Drug Coupons

Sometimes medical providers can use cost sharing to actually increase prices. Drug coupons illustrate how this works.

Insurers use tiered pricing to encourage patients to use (lower priced) generic drugs instead of (higher priced) brand name drugs. Tiered pricing applies a smaller copay for generic drug and a larger copay for

power to demand a cost shifting provision that required a private insurer to increase payments to make up for losses suffered in government insurance programs).

[336] Anna Wilde Mathews, *Behind Your Rising Health-Care Bills: Secret Hospital Deals That Squelch Competition*, WALL ST. J. (Sept. 18, 2018, 10:46 AM ET), https://www.wsj.com/articles/behind-your-rising-health-care-bills-secret-hospital-deals-that-squelch-competition-1537281963 [https://perma.cc/6PJL-L7W3].

[337] *Id.*

[338] *See id.*

brand name drugs.[339] When patients use generic drugs, both the insurer and the patient save money; generics hold down claims costs and minimize out-of-pocket expenses. Tiering also gives insurers leverage to negotiate for lower prices with brand name drug manufacturers.[340]

Tiered pricing, however, cuts into sales of brand name drugs. Brand name drug manufacturers get around tiered pricing by offering copay coupons. These coupons allow patients to purchase a more expensive brand name drug with an out-of-pocket payment that is less than the copay amount for the equivalent generic drug.[341] While the coupon system requires the brand name drug manufacturers to eat the higher copay cost, they still profit because the price of the brand name drug is already very high.[342] Drug coupons not only make expensive brand drugs more attractive to consumers, they also greatly reduce the incentive for drug manufacturers to offer price concessions when negotiating with pharmacies or pharmacy benefit managers.[343] Even worse, coupons can actually drive up brand name drug prices. As Leemore Dafny and colleagues have observed:

> In fact, the opposite strategy becomes profitable: charge insurers the highest price possible while remaining on the formulary, and then use a copayment coupon to promote use. The only recourse insurers have is to exclude a drug from their formulary entirely, and that may be much worse for patients than placing it in a high tier. If a drug is excluded, some patients will lack both coverage and a negotiated discount for a drug that might be a particularly good match for them.[344]

According to one recent study, copay coupons have bumped the sale of brand name drugs by more than 60% and caused several billion dollars in additional annual drug spending.[345]

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[339] *See* Austin Frakt, *When a Drug Coupon Helps You but Hurts Fellow Patients*, N.Y. TIMES (Sept. 25, 2017), https://www.nytimes.com/2017/09/25/upshot/when-a-drug-coupon-helps-you-but-hurts-fellow-citizens.html [https://perma.cc/2NQ2-GYY2].

[340] *See* Leemore S. Dafny, Christopher J. Ody & Matthew A. Schmitt, *Undermining Value-Based Purchasing — Lessons from the Pharmaceutical Industry*, 375 NEW ENG. J. MED. 2013, 2013 (2016) [hereinafter *Undermining Value-Based Purchasing*].

[341] *See id.*

[342] *See id.* at 2013-14.

[343] *Id.*

[344] *Id.*

[345] *See* Leemore Dafny, Christopher Ody & Matt Schmitt, *When Discounts Raise Costs: The Effect of Copay Coupons on Generic Utilization*, 9 AM. ECON. J. ECON. POL'Y 91, 91 (2017).

3. Other Ways to Maintain High Prices

As noted above, manufacturers of brand name drugs have engaged in various questionable tactics to maintain their patents and protect their high prices. But there are countless other steps drug manufacturers can take to suppress competition and protect high prices. For example, brand name drug manufacturers can file a so-called "citizen petition" to request that the FDA refrain from taking any administrative action on a pending generic application. Brand name drug manufacturers submit more than 90% of all citizen petitions. Many of these petitions are filed around the time a patent expires and can push back generic competition for nearly six months.[346] Brand name manufacturers can also delay providing drug samples to generic manufacturers, also known as reference standard drugs, a necessary step before the generic version can be made.[347] This is a significant problem. In May of 2018, the commissioner of the U.S. Food and Drug Administration ("FDA") noted that the agency had received over 150 inquiries from generic drug developers seeking assistance in getting drug samples from brand name drug companies.[348] The FDA tried to shame the companies that blocked access to drug samples by publishing a list of forty-one branded drug companies that have blocked access to drug samples.[349] A new law now allows generic drug developers to sue brand name drug companies that refuse to provide needed samples,[350] but how effective that law will be remains a question.

Perhaps the most extreme (but unsuccessful) scheme to protect a lucrative drug patent occurred when drug maker Allergan transferred its patents on a best-selling eye drug to the Saint Regis Mohawk Tribe

[346] Erin Fox, *How Pharma Companies Game the System to Keep Drugs Expensive*, HARV. BUS. REV. (Apr. 6, 2017), https://hbr.org/2017/04/how-pharma-companies-game-the-system-to-keep-drugs-expensive [https://perma.cc/4XRU-SGEW].

[347] *Id.*

[348] Press Release, FDA, Statement from FDA Commissioner Scott Gottlieb, M.D., on New Agency Efforts to Shine Light on Situations Where Drug Makers May Be Pursuing Gaming Tactics to Delay Generic Competition (May 17, 2018), https://www.fda.gov/news-events/press-announcements/statement-fda-commissioner-scott-gottlieb-md-new-agency-efforts-shine-light-situations-where-drug [https://perma.cc/MDG5-HPS5].

[349] *See id.* The FDA subsequently took the list down. *See Access to Product Samples: The CREATES Act*, FDA (Mar. 13, 2020), https://www.fda.gov/drugs/guidance-compliance-regulatory-information/access-product-samples-creates-act [https://perma.cc/DAG2-C733].

[350] *See* Further Consolidated Appropriations Act of 2020, Pub. L. No. 116–94, 133 Stat. 2534, 3130-37 (to be codified at 21 U.S.C. § 355-2).

in upstate New York. Allergan's plan was to protect the drug from a patent dispute on the basis of the tribe's sovereign immunity.[351]

None of these price-raising tactics can be stopped by CDHPs because they are not in any way connected to consumer demand.

### *D. Evolving Insurance Markets*

Providers of medical services and drugs are not the only market participants that take action that drive up prices. Health insurance companies do so as well by structuring existing products and developing new products that can either counteract or limit the intended effects of CDHPs. One example is gap coverage, which directly undercuts high deductibles by expanding insurance coverage. The other is narrow networks, which limit the ability of patients to shop around for less expensive care.

#### 1. Gap Coverage

In an irony unappreciated by free-market economists, it turns out that you can buy moral hazard. High deductible gap coverage is a new insurance product that undercuts the ability of CDHPs to control spending. Gap coverage is a limited benefit, supplemental, or gap, insurance product that consumers can buy to cover their deductible liability.[352] In essence, gap coverage is deductible insurance. Gap plans are provided by many insurers and can be used to supplement employer, government, or individual health insurance plans.[353]

Gap coverage can and will be used to offset whatever rationing deductibles are designed to create. When insulated from the cost of out-of-pocket expenses (the deductible), insureds are more likely to incur a

[351] Katie Thomas, *How to Protect a Drug Patent? Give It to a Native American Tribe*, N.Y. TIMES (Sept. 8, 2017), https://www.nytimes.com/2017/09/08/health/allergan-patent-tribe.html [https://perma.cc/H22P-DPXQ].

[352] *See* Brian O'Connell, *What Is Supplemental Health Care and What Does It Mean to Me?*, STREET (Apr. 18, 2019, 1:46 PM EDT), https://www.thestreet.com/personal-finance/insurance/health-insurance/supplemental-health-care-14930875 [https://perma.cc/Q32Z-WELD] ("[G]ap insurance fills any financial gaps - think health insurance deductibles, out-of-pocket medical expenses, and underpayments on serious illness or injury . . . .").

[353] *See* Brittney Laryea, *The Pros and Cons of Gap Insurance*, MAGNIFY MONEY (Oct. 3, 2016), https://www.magnifymoney.com/blog/featured/theres-insurance-insurance545359805/ [https://perma.cc/EA3G-BAV6]; *Morning Edition: Why Gap Insurance Is Making a Comeback*, NPR (Sept. 13, 2016, 5:13 AM), https://www.npr.org/2016/09/13/493723380/why-gap-insurance-is-making-a-comeback [https://perma.cc/JTY2-24QV].

medical cost. This can be seen in other forms of gap coverage. For example, Medicare supplemental coverage, also known as Medigap insurance, provides gap coverage for Medicare coverage. On average, Medigap coverage increases Medicare spending by 24%, with especially large effects for relatively healthy individuals.[354] Deductible gap insurance has the potential to raise, not lower health care spending under a CDHP.

2. Limited Networks

Insurance companies use narrow provider networks to control provider prices. Narrow networks are created using cost and quality criteria to select health care providers from a broader provider network. Insureds face very high cost-sharing and the risk of balance billing, or in some cases denial of insurance coverage, if they receive care from a provider outside the narrow network. This creates a strong incentive for insureds to seek care from the narrow network of providers or risk higher out-of-pocket costs.

Narrow networks are common in individual plans, but less common in employer-based plans. In 2017, 73% of individual market plans had restricted networks,[355] while 8% employer-based plans used narrow networks.[356] Narrow networks provide few options for patients. In 2014, 45% of individual market plans included fewer than 25% of area physicians[357] and 20% had fewer than 30% of area hospitals.[358] While a narrow network may afford lower prices than are generally available

[354] Michael Keane & Olena Stavrunova, *Adverse Selection, Moral Hazard and the Demand for Medigap Insurance*, 190 J. ECONOMETRICS 62, 63 (2016).

[355] Caroline F. Pearson, Elizabeth Carpenter & Chris Sloan, *Plans with More Restrictive Networks Comprise 73% of Exchange Market*, AVALERE (Nov. 30, 2017), http://avalere.com/expertise/managed-care/insights/plans-with-more-restrictive-networks-comprise-73-of-exchange-market [https://perma.cc/ZWX7-P533].

[356] *See* KAISER FAMILY FOUND. & HEALTH RESEARCH & EDUC. TR., EMPLOYER HEALTH BENEFITS: 2017 ANNUAL SURVEY 212, 213 fig.14.4 (2017), http://files.kff.org/attachment/Report-Employer-Health-Benefits-Annual-Survey-2017 [https://perma.cc/K9J2-FR2L].

[357] Daniel Polsky, Zuleyha Cidav & Ashley Swanson, *Marketplace Plans with Narrow Physician Networks Feature Lower Monthly Premiums than Plans with Larger Networks*, 35 HEALTH AFF. 1842, 31843, ex. 1 (2016) (noting that extra small networks, which had less than 10% of participating area physicians, comprised 19% of ACA individual market networks, and small networks, which had 10% to 24% of participating area physicians, comprised 26% of ACA individual market networks, and small networks).

[358] MCKINSEY CTR. FOR U.S. HEALTH SYS. REFORM, HOSPITAL NETWORKS: PERSPECTIVE FROM THREE YEARS OF EXCHANGES 3-4 (2016) (noting that 20% of plans had ultra-narrow networks, which included no more than 30% of area hospitals).

from a broader provider network,[359] they undercut the high deductible in two ways. First, narrow networks limit the ability of patient to shop around for care; essentially, they constrain the "consumer" aspect of the CDHP. Second, a narrow network offers much less provider competition. This means there is little or no incentive for providers in a narrow market to drop prices to attract covered individuals with CDHPs, since those patients must stay within the narrow network.

* * *

CDHPs require market competition to drive prices down. Absent meaningful competition, CDHPs have no power to drive down hospital, physician, or drug prices. CDHP theory also posits that medical prices will respond to demand. These examples, however, demonstrate that health care prices are not necessarily connected to demand. Despite the expansion of CDHPs, the steady increase in deductibles, and the relative flat utilization over the last few years, medical prices have risen dramatically. A lack of competition, provider shenanigans, and new and evolving insurance products contribute to those price increases and CDHPs can do nothing to address these price-increasing factors.

## V. POST-CDHP HEALTH INSURANCE?

This Part discusses the possibility of — and obstacles to — a post-CDHP era. Despite the enthusiasm and optimistic predictions of CDHP supporters, CDHP theory overextends Pauly's moral hazard model and ignores powerful legal structures and system incentives that health care providers exploit to limit competition and drive up prices. CDHPs have not driven down medical prices, they will not drive down prices in the future, and they have left millions of Americans mired in medical debt. This leaves several lingering questions. The first is "What now?" Half of all Americans have CDHPs.[360] The percentage of Americans with CDHPs continues to grow, as does the size of deductibles.[361] Will we — *can we* — get rid of CDHPs? Section A discusses the difficulties of

[359] *See* Leemore S. Dafny, Igal Hendel, Victoria Marone & Christopher Ody, *Narrow Networks on the Health Insurance Marketplaces: Prevalence, Pricing, and the Cost of Network Breadth*, 36 HEALTH AFF. 1606, 1611 (2017) (finding that individual market plans with narrow physician and hospital networks were 15.7% less expensive than plans with broader networks for both physicians and hospitals).

[360] *See supra* notes 69–70 and accompanying text.

[361] *See* ROBIN A. COHEN & EMILY P. ZAMMITTI, U.S. DEP'T OF HEALTH & HUMAN SERVS., NCHS DATA BRIEF NO. 317, HIGH-DEDUCTIBLE HEALTH PLAN ENROLLMENT AMONG ADULTS AGED 18–64 WITH EMPLOYMENT-BASED INSURANCE COVERAGE 1 (2018), https://www.cdc.gov/nchs/data/databriefs/db317.pdf [https://perma.cc/CH42-APJ5].

eliminating, or even substantially reducing, high general deductibles. Structural and practical barriers block our escape from high deductibles; we may indeed be caught in a CDHP trap. Section B addresses the next question. Given the difficulties of eliminating deductibles, can we transform high deductibles to actually control medical prices? In other words, can an insurance plan be restructured so that a deductible actually promotes price control? The answer is yes. Deductibles and other forms of cost-sharing can be targeted to more directly and vigorously push patients to less expensive providers. But this solution has several drawbacks. First, it is vulnerable to the same provider counter-strategies that dilute price-reducing effects of general deductibles. Second, the administrative infrastructure necessary to make this method work raises doubts as to whether using deductibles to control price is preferable to other, more direct methods of price control.

Finally, Section C addresses remaining but theoretically sticky issues wrapped up in the CDHPs concept: individual liberty, free markets, and patient autonomy. The CDHP movement is not just about economic efficiency; it posits individual liberty and individual contracting in a free market as a morally superior approach to health care. CDHP theory embraces a notion of personal freedom and choice that can outweigh competing policy considerations that favor the public good. In this respect, CDHPs may present the health insurance equivalent of the *Lochner* problem: adherence to economic libertarianism and an abhorrence of a regulatory government that required a major philosophical shift to effect change.

### *A. Can We Escape the High Deductible Trap?*

Despite the harm they cause, high deductibles may be difficult to shed due to structural and practical barriers. The Affordable Care Act ("ACA") creates the structural barrier. The ACA tiered health plans in the individual market. That tiering relies largely on deductibles to differentiate plans based on actuarial value,[362] the measure of the percentage of health care costs that a health insurance plan expects to

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[362] *See* Jon R. Gabel, Ryan Lore, Roland D. McDevitt, Jeremy D. Pickreign, Heidi Whitmore, Michael Slover & Ethan Levy-Farsythe, *More than Half of Individual Health Plans Offer Coverage that Falls Short of What Can Be Sold Through Exchanges as of 2014*, 31 HEALTH AFF. 1339, 1340 (2012). These plans are classified into four tiers by their actuarial value (the percentage of medical bill that a plan is expected to pay). Platinum plans pay 90% or more, gold plans pay 80% to 89%, silver plans pay 70% to 79%, and bronze plans pay 60% to 69%. *Id.*

cover.[363] These tiers are also linked to premium and cost-sharing subsidies for low-income buyers.[364] Insurance plans sold in the individual market are designed around deductibles. Since these plans must include certain features, such as a standard set of benefits, caps on out-of-pocket spending, and prohibitions on annual and lifetime coverage limits, deductibles strongly influence actuarial values.[365] In other words, the very structure of the ACA's individual health insurance market plans is tied to deductible levels. A reduction or elimination of large deductibles would require a substantial rejiggering of the individual market and perhaps changes to the ACA — an undertaking that would be both daunting and politically fraught.

The practical — and more substantial — barrier centers on the premium. Simply eliminating (or substantially reducing) deductibles, absent some other cost-saving action, will drive up premiums. As noted earlier, deductibles can reduce premiums two ways. First, deductibles drive down the use of medical care (both necessary and unnecessary), which translates into premium savings.[366] Second, deductibles shift medical costs from the pool of insureds to individuals who use medical care. This risk shifting also holds down premiums.[367] But the use of deductibles to lower premiums creates a trap. Absent some other changes that would lower overall costs, simply reducing or eliminating deductibles will drive up premiums. The jump in premiums that would result from a substantial reduction of deductibles would likely generate a massive public backlash. Many employers, families, and individuals would likely balk if they had to trade their high deductibles for a steep rise in premiums. A reduction of deductibles would also push more people out of coverage. Absent subsidies, many of those pushed out of coverage would not be able to afford the resulting jump in premiums.[368]

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[363] Lynn Quincy, *Actuarial Value: Why It Matters and How It Will Work*, HEALTH AFF. BLOG (Feb. 28, 2012), https://www.healthaffairs.org/do/10.1377/hblog20120228.017352/full/ [https://perma.cc/3YGF-DGDV].

[364] *See* Gabel et al., *supra* note 362, at 1341.

[365] *See id.* at 1342-43.

[366] *See supra* Part II.A.2.

[367] *See* Amitabh Chandra, Jonathan Holmes & Jonathan Skinner, *Is This Time Different? The Slowdown in Health Care Spending*, 2013 BROOKINGS PAPERS ECON. ACTIVITY 261, 263, https://www.brookings.edu/wp-content/uploads/2016/07/2013b_chandra_healthcare_spending.pdf [https://perma.cc/E2GL-DPJP] (suggesting high-deductible health plans in employer market have moderated premium-cost increases).

[368] Americans already pay very high premiums. In 2019, the average family plan offered by an employer costs $20,576, just over $6,000 of which is paid directly by the employee. *See* KAISER FAMILY BENEFITS 2019, *supra* note 59, at 6. The cost of coverage has increased significantly more than either wages or inflation over the last decade. *Id.*

A large reduction of deductibles will also affect different health insurance markets in different ways. In the large employer group and self-funded markets, where the cost of coverage for a large group of employees is based on that group's past experience, a reduction or elimination of a high deductibles will transfer medical costs from the individual employees back to the to the group (i.e., the risk pool). Employers will then pass those costs back to employees in the form of higher premium payments, wage stagnation, or both.[369] Thus, large employers that provide self-funded or experience-rated group health coverage have no incentive to significantly reduce or eliminate deductibles.

In other markets, where medical costs are spread across a broader population, such as the individual and small employer group markets, there is not only the problem of higher premiums (and possible wage stagnation for small employer groups), but also an adverse selection problem.[370] In these markets, insurers develop premiums based a single pool of medical costs.[371] No one insurer will willingly reduce or eliminate its deductibles for fear that they will draw a disproportionate number of sicker individuals, who prefer a lower deductible. This would drive up their overall medical costs relative to any competitors who did not lower their deductibles. The result would be a sharper jump in premiums that could put them at a competitive disadvantage in the market. Thus, no single insurer will reduce its deductibles because of adverse selection.

at 7-8 (reporting an increase of 22% over the last five years and 54% over the last ten years). And, premiums are expected to continue their climb, making coverage increasingly unaffordable. *See* Reed Abelson, *Employer Health Insurance Is Increasingly Unaffordable, Study Finds*, N.Y. TIMES (Sept. 25, 2019), https://www.nytimes.com/2019/09/25/health/employer-health-insurance-cost.html [https://perma.cc/VG7Q-5UCX].

[369] Employees are thought to pay the employer's contribution in the form of lower wages. *See* Linda J. Blumberg, *Who Pays for Employer-Sponsored Health Insurance?*, 18 HEALTH AFF. 58, 59 (1999) ("Economists tend to agree that, based upon both theory and the best empirical evidence, workers bear a large portion of health insurance costs through reduced wages."); David A. Hyman, *Employment-Based Health Insurance and Universal Coverage: Four Things People Know that Aren't So*, 9 YALE J. HEALTH POL'Y L. & ETHICS 435, 437 (2009) ("[E]mployees actually foot the bill in the form of foregone salary and other benefits."). By lowering deductibles, employers would pass that cost on to employees in the form of higher direct contributions of health plan payments or indirectly in the form a lower wages or lower raises.

[370] *See* Cogan Jr., *supra* note 137, at 1131.

[371] *See id.* at 1153-54 (noting that after the ACA individual and small group markets are community rated, that is, insurers develop their premiums based a single pool of medical costs).

### B. *Can Deductibles Be Reformulated to Actually Lower Prices?*

The notion that CDHPs can drive down prices is based on the idea that medical cost is driven by a certain kind of waste, that is, overconsumption of low value care.[372] CDHPs purport to eliminate this kind of waste through market pressures imposed by a general deductible. As consumers buy less low value care, the theory holds, health providers are forced to realign their prices to compete for fewer health care dollars. As discussed in Part IV, though, market conditions, profit-seeking behaviors of providers, and new products not accounted for by CDHP theory undercut the ability of CDHP deductibles to drive down the price of medical care. Could other forms of point-of-service cost-sharing, such as deductibles specifically targeted at higher priced medical services, bring down medical prices? The answer is yes. Cost sharing that incorporates choice architecture, which structures the patient's choices to encourage the use of lower priced medical care, has the power to directly attack high provider prices. But here's the catch: choice architecture requires significant bureaucratic involvement, constant tinkering, and consumer choice restrictions — properties that are both costly and potentially objectionable to advocates of a market-based solution. In addition, targeted deductibles will be subject to provider counter-strategies that dilute their price-reducing effects.

#### 1. Benefit Design and Patient Choice

There are a variety of ways to structure insurance benefit design that uses cost-sharing to drive down provider price. Three of these emerging benefits designs are tiered pricing, referenced-based benefits, and centers of excellence. These designs work by offering coverage with low (or no) cost sharing if the patient chooses a low-cost (i.e., low-priced) provider.

##### a. *Tiered Pricing*

One way to directly address high prices at the point of service is through tiered pricing.[373] Tiered pricing offers reduced cost sharing to patients as an incentive for them to choose less expensive medical goods and services. Prescription drug pricing has long used tiered formularies

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[372] *See supra* Parts II.B, III.C.

[373] *See* Paul B. Ginsburg & Leonard G. Pawlson, *Seeking Lower Prices Where Providers Are Consolidated: An Examination of Market and Policy Strategies*, 33 HEALTH AFF. 1067, 1069-70 (2014).

as a cost-savings tool.[374] An insurer may cover all drugs within a therapeutic class, but the insurer tiers those drugs by price and imposes different cost sharing obligations based on the tier. Inexpensive drugs will have low cost-sharing while expensive drugs will have high cost sharing.[375] Providers can also be tiered. An insurer can sort its network providers into tiers based on price. Patients retain the ability to choose any network provider, but the patient's cost sharing will be higher if a more expensive provider is selected.[376] For example, the same treatment at different hospitals could involve different levels of cost sharing.

There is evidence that tiered networks are moderately successful in steering patients toward lower-priced providers.[377] This is not surprising; tiered pricing provides a stronger incentive to select a lower priced provider than the deductible of a CDHP. Tiered pricing also preserves choice by giving patients the ability to consider the cost trade-offs of various providers.

*b. Reference-based Benefits*

Another demand-side incentive to control prices is reference-based benefit ("RBB") design, also known as "reference-based pricing."[378] RBB is designed to address provider pricing variations by setting a reference price — a price cap — that reflects what the purchaser (the insurer) considers a reasonable price for a particular service and is willing to pay.[379] Under RBB, the insurer establishes a reference price for a health service or bundle of services.[380] The patient may choose any network

[374] *Id.* at 1069.

[375] *Id.* at 1069-70.

[376] *See* Dafny et al., *Undermining Value-Based Purchasing*, *supra* note 340, at 2013-14; Greaney, *supra* note 303, at 237.

[377] Anna D. Sinaiko, Mary Beth Landrum & Michael E. Chernew, *Enrollment in a Health Plan with a Tiered Provider Network Decreased Medical Spending by 5 Percent*, 36 HEALTH AFF. 870, 874 (2017) (finding that a tiered-network health plan lowered a tiered-network health plan lowered total health care spending by 5% per member).

[378] In the United States, employers and insurers do not have the authority unilaterally to establish prices. Rather, they can establish benefit limits. Therefore, the term "reference-based benefits" rather than "reference-based pricing" is more appropriate for the U.S. context. James C. Robinson, Timothy Brown & Christopher Whaley, *Reference-Based Benefit Design Changes Consumers' Choices and Employers' Payments for Ambulatory Surgery*, 34 HEALTH AFF. 415, 416 (2015) [hereinafter *Referenced-Based Benefit*].

[379] SUZANNE F. DELBANCO, ROSLYN MURRAY, ROBERT A. BERENSON & DIVVY K. UPADHYAY, URBAN INST., BENEFIT DESIGNS: HOW THEY WORK 30 (2016), https://www.urban.org/sites/default/files/publication/80311/2000777-Benefit-Designs-How-They-Work.pdf [https://perma.cc/M5Z9-2UWM].

[380] *See* Robinson et al., *Referenced-Based Benefit*, *supra* note 378, at 416.

provider, but must pay all costs above the reference price.[381] In other words, a patient's out-of-pocket costs will be the difference, if any, between the provider's price and the reference price. Like tiered pricing, RBB has shown success in lowering costs. Studies have found that RBB increased use of low-price facilities, reduced the use of high-price facilities, reduced prices at high-price facilities, and reduced average prices.[382]

*c. Centers of Excellence*

A third approach is centers of excellence ("COEs"). COEs are hospitals that insurers either steer patients to, or require patients to use, for surgical and medical procedures.[383] Insurers contract with particular hospitals as COEs on the basis of quality and price.[384] COEs can be designated as the only covered providers for certain services, with the patients paying all charges if they choose another provider. They can also be offered as part of a larger provider network but with lower cost sharing.[385] In return for COE designation, hospitals are paid a lower price.[386] COEs work by expanding the geography of a provider network so that very low prices can be obtained. Often, COEs are located far away from insureds. Patients must incur the inconvenience of travel and family disruption to use COEs. COEs have also demonstrated the ability to control costs.[387]

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[381] *Id.*

[382] *Id.*; L. Doug Melton, Kent Bradley, Patricia Lin Fu, Raegan M. Armata & James B. Parr, *Reference-Based Pricing: An Evidence-Based Solution for Lab Services Shopping*, 20 AM J. MANAGED CARE 1033, 1033 (2014); James C. Robinson, Christopher Whaley & Timothy T. Brown, *Association of Reference Pricing for Diagnostic Laboratory Testing with Changes in Patient Choices, Prices, and Total Spending for Diagnostic Tests*, 176 JAMA INTERNAL MED. 1353, 1354, 1356-57 (2016); Robinson et al., *Referenced-Based Benefit*, *supra* note 378, at 416; *see also* Timothy T. Brown & James C. Robinson, *Reference Pricing with Endogenous or Exogenous Payment Limits: Impacts on Insurer and Consumer Spending*, 25 HEALTH ECON. 740, 741 (2015).

[383] James C. Robinson & Kimberly MacPherson, *Payers Test Reference Pricing and Centers of Excellence to Steer Patients to Low-Price and High-Quality Providers*, 31 HEALTH AFF. 2028, 2028 (2012).

[384] *Id.* at 2030.

[385] *Id.*

[386] DELBANCO ET AL., *supra* note 379, at 36.

[387] Robinson & MacPherson, *supra* note 383, at 2028.

2. Choice Architecture, Patient Choice, and Bureaucracy

Tiered pricing, reference-based benefits, and centers of excellence apply demand-side strategies to lower costs. They use point of service cost sharing and allow patient choice. These tools can exert downward pressure on market prices.[388] From this perspective, these tools seem quite similar to CDHP deductibles. Yet, they are different from CDHPs, ideologically and functionally.

The CDHP deductible is designed to shape patient decisions, but indirectly. CDHPs push patients to make consumption choices in the same manner as if they had to purchase medical care without insurance. Patients weigh the costs and benefits of the potential purchase, taking into account all their spending decisions. The decision would not only involve choosing a health care provider, it would also involve a more fundamental consideration: whether to spend or not. These choices would result, according to CDHP theory, in reduced consumption of low value medical services. That reduction would, in turn, push down provider prices. Put differently, the CDHP approach is not intended to favor any particular result; it is intended to dampen incentives that undermine the welfare-enhancing value of insurance by reducing excessive consumption of medical care. The effect of CDHPs on prices is indirect, though the market.

These three cost sharing tools — tiered pricing, reference-based benefits, and centers of excellence — apply "choice architecture," an approach to policymaking favored by behavioral economists that "organiz[es] the context in which people make decisions"[389] Put bluntly, choice architecture places a thumb on the scale when a choice is offered. The issue is not *whether* a medical procedure should be purchased; the only question is which one should be chosen. Unlike a CDHP deductible, which favors no particular choice, these three cost sharing tools are structured to provide a strong incentive for patients to make a particular (low-cost) choice. Given the potentially significant financial pressures imposed by these plans if the "correct" choice is not made, patient choice is almost illusory — the patient has little freedom to exercise choice.[390]

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[388] *See* James C. Robinson, Timothy T. Brown & Christopher Whaley, *Reference Pricing Changes the 'Choice Architecture' of Health Care for Consumers*, 36. HEALTH AFF. 524, 525 (2017) (noting that reference-based pricing ("RBP") reduced prices at high-price facilities and reduced average prices).

[389] RICHARD H. THALER & CASS R. SUNSTEIN, NUDGE: IMPROVING DECISIONS ABOUT HEALTH, WEALTH, AND HAPPINESS 3 (2008).

[390] An argument could even be made that insurers applying these three tools are indifferent to a patient's own choice. The fact that these plans generate significant

But the insurer's thumb on the scale is not the only issue. These three tools require considerable administration by insurer, precisely the kind of bureaucratic structure that some free marketeers reject.[391] For example, to establish tiered pricing, an insurer must establish a reliable and consistent method of segregating providers into tiers. Tiers must be periodically updated to account for cost and quality changes. Tiering can also be more difficult for providers than for drug makers because "physician and hospital services are less commodity-like and require judgments on the complex factors underlying meaningful cost and quality comparisons."[392] Information about tiers and prices must be effectively communicated to patients and regularly updated.[393] Insurers must establish large enough price differences among tiers to provide enough incentive to alter patient behavior. There must also be enough providers in the network and at the different tiers to make the tiering worthwhile.[394] And, tiered networks will not work in highly consolidated markets, as dominant providers will demand to be placed in preferred tiers.[395] Finally, to successfully tier, an insurer must overcome "the compelling influence" of a patient's "physician agents who recommend treatments and suggest referrals."[396]

Moreover, insurers operating tiers must remain vigilant when trying to protect the tiers from corrupting influences. As discussed above, drug manufacturers have responded to tiered prices by offering coupons and discount cards through which the manufacturer pays some or all of a consumer's cost sharing for a prescription; a tactic that undermines the tiering system.[397] But coupons and discounts are not the only way to weaken tiers. Providers could also lobby for laws that thwart insurers' efforts to tier; they could promote their brands more aggressively through advertising; they can favorably distinguish themselves from other providers by offering higher-quality patient experiences so that they become a "must-have" provider.[398] These moves can both undercut the tiers and give the provider an incentive to raise its prices.[399]

savings suggests that, absent the financial incentives offered by these tools, many patients would choose a pricier provider.

[391] *See* Allison K. Hoffman, *Cost-Sharing Reductions, Technocrat Tinkering, and Market-Based Health Policy*, 46 J.L. MED. ETHICS 873, 875-76 (2018).

[392] *See* DELBANCO ET AL., *supra* note 379, at 20.

[393] *See* Ginsburg & Pawlson, *supra* note 373, at 1069-70.

[394] *See* DELBANCO ET AL., *supra* note 379, at 20.

[395] *See id.*; Ginsburg & Pawlson, *supra* note 373, at 1070.

[396] Greaney, *supra* note 303, at 238.

[397] Dafny et al., *Undermining Value-Based Purchasing*, *supra* note 340, at 2013.

[398] *Id.* at 2014-15.

[399] *Id.* at 2014.

Consumers subject to the choice architecture approach appear to have more ability to push down prices, but this approach has limits, imposes its own costs on patients (i.e., travel, disruption), but more critically, the use of the deductible and other cost sharing here is not really an autonomous market-driven choice, it is more like a limited or forced choice. Moreover, it is a structure that requires bureaucratic oversight. It is a staged market that only offers patients a weighed choice.

This raises the question as to whether this weighted choice-system is superior to more direct cost controls, such as rate-setting, price ceilings, or imposing public controls on prices of "monopoly services" along the lines of a public utility model with rates sufficient to cover the cost of services.[400] Market-based policies are thought to be more efficient, less bureaucratic, and better at meeting consumer demands than government action.[401] They also purport to promote individual liberty. The choice architecture approach, however, does not meet these market-based expectations.

### *C. Honoring Autonomy, Market Choice, and Individual Contracting*

The CDHP movement is not just about economics and efficiency, it posits individual contracting as a morally superior approach to health care; it embraces a notion of personal freedom and choice for patients vis-à-vis the doctor (or hospital), individual responsibility, and a preference for free markets. For CDHP advocates, these ideas seem to outweigh (or at least balance against) competing policy considerations, including the social pooling of risk.[402] Yet, the free-market approach to health care runs up against the very nature of health insurance.

Insurance is not, and cannot, be the domain of pure individual liberty because insurance is about pooling risk. Thus, insurance is in tension with individualism and represents a kind of unstable equilibrium between socialism (because insurance pools risk) and free markets

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[400] *See* Stuart Altman & Robert Mechanic, *Health Care Cost Control: Where Do We Go from Here?*, HEALTH AFF. BLOG (July 13, 2018), https://www.healthaffairs.org/do/10.1377/hblog20180705.24704/full/ [https://perma.cc/535Z-QYL2]. For a list of more direct ways to set prices, see John Aloysius Cogan Jr., *Health Insurance Rate Review*, 88 TEMP. L. REV. 411, 419 (2016).

[401] *See* Allison K. Hoffman, *Health Care's Market Bureaucracy*, 66 UCLA L. REV. 1926, 1932 (2019).

[402] *See, e.g.*, Marshall B. Kapp, *Patient Autonomy in the Age of Consumer-Driven Health Care: Informed Consent and Informed Choice*, 2 J. HEALTH & BIOMEDICAL L. 1, 1-3 (2006) (calling for the expansion of adults' autonomous decision making when it comes to health care choices).

(insurance is also a market transaction). To work, that is, to provide the desired pooling of risk, insurance must be both profitable and affordable for buyers. This balance is, of course, further complicated by pooling concerns generated not only by moral hazard, but also adverse selection.[403] As Liran Einav and Amy Finkelstein have pointed out, supply and demand are not independent in insurance markets.[404] Anyone who buys insurance and enters a risk pool not only makes a personal choice, but is raising or lowering the expected cost of the entire pool. There is a public good-like aspect to insurance. In other words, someone's choices in an insurance market are not – and can never be – theirs, alone. This means that a fully free-market approach to coverage is simply inconsistent with a well-functioning health insurance market.[405]

There is, however, another problem. To use a constitutional law analogy, there is a *Lochner*-like quality to the economic thinking behind CDHPs. In the widely reviled[406] *Lochner v. New York*,[407] the Supreme Court invalidated a state law on the ground that it violated the constitutionally-protected liberty of employees and employers to contract freely.[408] *Lochner*, and the string of cases that followed,[409] "moralized [the] view of economic life that protects individual

[403] *See* Rothschild & Stiglitz, *supra* note 44, at 642. For a more detailed, but accessible explanation of the Rothschild-Stiglitz model, see Siegelman, *supra* note 151, at 1235-40.

[404] *See* Liran Einav & Amy Finkelstein, *Selection in Insurance Markets: Theory and Empirics in Pictures*, 25 J. ECON. PERSP. 115, 118 (2011) [hereinafter *Selection*] ("[D]emand and cost curves [for insurance] are tightly linked, because the individual's risk type not only affects demand but also directly determines cost.").

[405] Thanks to Peter Siegelman for raising this point.

[406] David A. Strauss, *Why Was* Lochner *Wrong?*, 70 U. CHI. L. REV. 373, 373 (2003) (noting that *Lochner* is probably the "most widely reviled decision of the last hundred years").

[407] 198 U.S. 45 (1905).

[408] *Id.* at 64.

[409] *See, e.g.*, New State Ice Co. v. Liebmann, 285 U.S. 262 (1932) (striking a law that required licensure by a state commission to sell ice); Tyson & Bro.-United Theatre Ticket Offices, Inc. v. Banton, 273 U.S. 418 (1927) (invalidating statute that regulated resale prices of theater tickets); Adkins v. Children's Hosp. of D.C., 261 U.S. 525 (1923) (invalidating minimum wage law because it forbade the choice to contract for low wages); Buchanan v. Warley, 245 U.S. 60 (1917) (invalidating law regulating how many people of different races could live on one block); Coppage v. Kansas, 236 U.S. 1 (1915) (invalidating laws that voided anti-union contracts to advance organized labor); Standard Oil Co. of N.J. v. United States, 221 U.S. 1 (1911).

autonomy in market transactions"[410] by viewing unregulated contractual relations as exemplars of liberty.[411]

The *Lochner* decision is subject to many criticisms, but two are particularly relevant to the discussion of CDHPs. First, the *Lochner* court was unwilling or unable to recognize that a particular ordering of the market based on the notion of "freedom of contract" was not a natural state of affairs, but was itself a regulatory choice to leave the current economic playing field undisturbed, imbalances and all.[412] *Lochner*-era workers were in many ways like today's holders of CDHPs: they were left to cut the best deal they could, given their limited bargaining power. *Lochner*-era corporate powers were like today's health care providers: they were left to operate freely in a market that they could structure to their benefit.[413]

The second relevant criticism is the *Lochner* Court's unbending application of "freedom of contract" concept.[414] In striking down nearly two hundred social welfare laws, the Court rigidly applied *Lochner*'s economic theory in a way that purported to give workers a benefit (freedom to contract as they pleased), but systematically "undervalued reasons for limiting or overriding" that theory.[415] As a practical matter, the *Lochner*-era Court privileged the interests of wealth and capital, those with superior bargaining power, over the people who had little or no bargaining power and who suffered at the hands of those interests. Like the *Lochner*-era Court, CDHP advocates privilege the interests of health care providers and insurers, sophisticated, repeat market players with superior economic power, while undervaluing the reasons for limiting the use of CDHPs.

[410] Jedediah Purdy, *Neoliberal Constitutionalism: Lochnerism for a New Economy*, 77 LAW & CONTEMP. PROBS. 195, 197 (2014).

[411] *Id.*

[412] Cass R. Sunstein, Lochner*'s Legacy*, 87 COLUM. L. REV. 873, 882 (1987).

[413] This also reflects the core tension in insurance. Insurance — the social pooling of risk — is in tension with individualism and represents a kind of tense and unstable equilibrium between socialism and free markets. While insurance is all about pooling and sharing risk, a socialist-like endeavor, insurance is simultaneously a *market* transaction. Thus, insurance is limited by certain constraints — it has to be profitable enough so that suppliers want to provide it, and cheap enough so that people want to buy it. Plus, because of adverse selection, there is an essential pooling aspect of insurance. Supply and demand are not independent. *See* Einav & Finkelstein, *Selection*, *supra* note 404, at 130-31. So full free-market autonomy seems inconsistent with a well-functioning insurance market of any kind, especially health insurance.

[414] *See* Rebecca L. Brown, *The Art of Reading* Lochner, 1 N.Y.U. J.L. & LIBERTY 570, 572-74 (2005) (listing various critiques of *Lochner*, including that it enforced a particular right that is undeserving of constitutional protection).

[415] Strauss, *supra* note 406, at 375.

In the end, it was the Court's tin-eared approach to applying the constitutional "freedom of contract" of *Lochner* that eventually spelled doom for the decision. But the end of *Lochner* came about only after more than three decades had passed and the country suffered the major economic upheaval of the Great Depression. CDHP advocates have also shown their tin ears. Despite the overwhelming evidence of financial and health damage caused by large deductibles, and the underwhelming evidence that large deductibles should be the fulcrum upon which our provider price control strategy is placed, CDHP advocates continue to insist that patients coupled with the right health plans and the right incentives can drive down prices. We are not quite two full decades into the era of CDHPs, but the harm of high deductibles is unmistakable, and there are two things that we can be relatively certain about. First, the deleterious effect of CDHPs will only get worse as deductibles continue to rise. Second, like *Lochner*, CDHPs will continue to favor the privileged actors in the health care market — like hospitals and drug manufacturers — by allowing them to drive up prices, at the expense of patients. Like *Lochner*, this scenario may go on for decades before it finally breaks.

## CONCLUSION

The logic and appeal of CDHP theory rests on its preference for competition and consumer choice as well as its apparent scientific validity, simplicity, and appeal to our distrust of government. But health care markets are far more complex than CDHP theory accounts for. The evidence discussed herein shows that a consumer-driven, market-based approach to price control will not only fail, but that it can be financially toxic for patients and their families. Yet, we are neck-deep in high deductible plans because CDHPs dominate US health insurance markets. Escape from these plans will surely be difficult due to legal, economic, and political reasons. But the philosophical hurdles to overcoming CDHPs will also be difficult to overcome. The CDHP movement is not just about economics and efficiency, it also embraces a notion individualism and personal freedom in health care. But this embrace not only conflicts with the nature of insurance, it also comes with a high cost to patients because it privileges the interests of health care providers and insurers — the market players with superior economic power. Before we can move beyond consumer-based price control we must confront this difficult political and philosophical challenge.