



Preferred Pharmacy Networks: Health Care Savings on the Margins

Ashley Swanson, PhD

ISSUE BRIEF

VOLUME 7

NUMBER 3

MAY 2019

Health care spending in the U.S. reached \$3.5 trillion—\$10,739 per person—in 2017, or nearly one-fifth of GDP.¹ The high cost of health care has been a staple campaign issue for several presidential cycles, and 2020 is shaping up to be no exception.

According to a recent Washington Post article, most of the current Democratic candidates for President now support Medicare-for-all or some form of public option to expand health care coverage.² These are the types of big ideas that policymakers often embrace in the face of problems as large and seemingly intractable as improving health care affordability and expanding insurance coverage. However, as research on the behavior of health care providers, insurers, and consumers has demonstrated time and again, the devil may be in the details.

Yale economist Fiona Scott Morton noted in a *New York Times* article last summer that the “big” fix to excessive health care spending may, in fact, be a series of much smaller fixes.³ As Scott Morton said, “I think focusing on the forest misses the fact that there are trees encroaching out of the forest. And we need to start cutting them down.” Throughout the various industries that support the American health care system, opportunities for such savings abound. For example, in Scott Morton’s recent work on “surprise” out-of-network billing for emergency care, an arbitration policy remedy reduced out-of-network billing by

SUMMARY

- While policymakers have talked a lot recently about finding a comprehensive fix for escalating health care costs, such as Medicare-for-all, many economists have been exploring the possibility that the answer for excessive health care spending may rest instead in series of smaller adjustments.
- This issue brief presents research on one such small fix: preferred pharmacy networks. This is a relatively new tool whereby health insurers aim to steer consumers to lower cost “preferred” pharmacies, where insurers are able to negotiate lower drug prices.
- The research concludes that preferred pharmacy contracting results in a roughly 1 percent decrease in Medicare Part D drug costs among plans utilizing this tool—a fact that should be encouraging to policymakers concerned about reigning in costs, especially in light of other research demonstrating that health care consumers do not shop around for lower priced care.
- If this practice of “steering” consumers toward lower cost drugs were applied to the entire pharmaceutical industry, the savings could be much greater.

34 percent and lowered in-network emergency physician payments by 9 percent.⁴ In a similar vein, Einav, Finkelstein, and Mahoney (2018) studied the incentives of long-term care hospitals (LTCH) in the Medicare program and found that restructuring Medicare contracts could generate savings of about 5% of total payments to LTCHs.⁵ Dafny, Ody, and Schmitt (2017) found that the use of copay coupons for branded prescription drugs increased drug spending by \$700 million to \$2.7 billion during 2007 and 2010.⁶ The policy fixes suggested by these results would have limited effects on overall health care spending in the U.S., but a few million (or billion) dollars of reduced waste here or increased savings there can begin to add up.

In my own research, I have discovered another example of “1%” savings—and perhaps something even more valuable, as I explain in this Issue Brief. In joint work with Amanda Starc, an economist at Northwestern, I examined selective pharmacy contracting, which is a relatively new practice used by health insurers to lower the drug prices that their private insurance plans pay to pharmacies.⁷ We find that when insurance plan enrollees’ out-of-pocket prices are

transparent—in this case, the prices are copays charged to Medicare Part D plan enrollees—health care consumers can sometimes be steered to lower cost “preferred” pharmacies. On the other hand, these preferred pharmacy networks reduce the comprehensiveness of enrollees’ drug plans, which is a very real welfare loss for consumers. Ultimately, given the steering we observe in practice, and given the price differentials observed between preferred and non-preferred plans, we find that preferred pharmacy contracting results in a roughly 1 percent decrease in Medicare Part D drug costs among plans utilizing this tool.

MEDICARE PART D TARGETS PHARMACIES’ MARKET POWER

The rising cost of drugs in the United States is the focus of much attention from economists, patient advocates, and policymakers.⁸ While much of this attention is directed toward pharmaceutical manufacturers, research has found that pharmacies are able to realize significant margins when they have the power to foreclose access to certain products.⁹ Pharmacy companies are quite concentrated

and often do have significant market power, with five companies commanding over 60 percent of prescription revenues.¹⁰

Preferred pharmacy networks are a relatively new tool for combatting pharmacy market power, analogous to plans’ historical use of drug formularies to combat manufacturers’ market power. Researchers have argued that the introduction of Medicare Part D in 2003 lowered the price of drugs by increasing insurer market power (through the use of formularies) relative to that of drug manufacturers.¹¹ That market power shift, along with a turn toward generic drugs, has led to program costs lower than forecasted when this government benefit was passed into law. This is not to say that Part D insurers (or, more accurately, the pharmacy benefit managers (PBMs) serving as insurers’ imperfect proxies) act as perfect agents of enrollees, but rather that they are incentivized to reduce drug costs. Indeed, drug prices in Part D plans increased only about 2 percent between 2007 and 2010, although plan premiums grew by 62.8 percent.¹²

Medicare Part D stipulates that prescription drug coverage be provided to elderly Americans by private health insurers. Enrollees are able to

NOTES

- Centers for Medicare & Medicaid Services (CMS), available at <https://www.cms.gov/research-statistics-data-and-systems/statistics-trends-and-reports/nationalhealthexpenddata/index.html>.
- Kevin Uhrmacher et al., “Where 2020 Democrats Stand on Medicare-for-all,” *The Washington Post*, accessed on April 30, 2019, <https://www.washingtonpost.com/graphics/politics/policy-2020/medicare-for-all/>.
- Margot Sanger-Katz, “Taming the Cost of Health Care 1% at a Time,” *The New York Times*, August 30, 2018.
- Cooper, Scott Morton & Shekita (2018), “Surprise! Out-of-Network Billing for Emergency Care in the United States,” NBER Working Paper 23623.
- Einav, Finkelstein & Mahoney (2018), “Provider Incentives and Healthcare Costs: Evidence from Long-term care Hospitals,” *Econometrica*, Vol. 86, No. 6, available at <https://economics.mit.edu/files/16464>.
- Dafny, Ody & Schmitt (2017), “When Discounts Raise Costs: The Effect of Copay Coupons on Generic Utilization,” *American Economic Journal: Economic Policy*, Vol. 9, No. 2, pp. 91-123.
- Amanda Starc & Ashley Swanson (2018), “Preferred Pharmacy Networks and Drug Costs,” NBER Working Paper 24862.
- See, e.g., Howard, D., Bach, P., Berndt, E. & Conti, R. (2015), “Pricing in the Market for Anticancer Drugs,” *Journal of Economic Perspectives* 29(1), 139–162.
- Dubois, P. & Saethre, M. (2018), “On the Effect of Parallel Trade on Manufacturers’ and Retailers’ Profits in the Pharmaceutical Sector,” TSE Working Paper (18-883).
- Statista, “Top U.S. pharmacies ranked by prescription drugs market share in 2018,” available at <https://www.statista.com/statistics/734171/pharmacies-ranked-by-rx-market->

choose from dozens of plans offered in their local geographic markets, and nearly 41 million of the 57 million people on Medicare (71 percent) were enrolled in a Part D plan in 2016.¹³ Though offered by private insurers, Part D is a government benefit and is strictly regulated by the federal Centers for Medicare and Medicaid Services (CMS). CMS mandates coverage generosity of plans in terms of actuarial value, types of drugs covered, and pharmacy network breadth.¹⁴

The pharmacy networks designed by plans in the Medicare Part D program may exclude independent pharmacies or entire pharmacy chains, such that enrollees are not able to use plan coverage for prescription fills at those pharmacies. However, Part D plans are limited in their ability to entirely exclude pharmacies due to network adequacy standards.¹⁵ Another lever available to plans is that a pharmacy can be designated as preferred or non-preferred in a plan's network, where preferred status implies reduced out-of-pocket costs to enrollees. Critically, network adequacy standards do not apply to the preferred network, so preferred pharmacy networks can be much more restrictive than plans' overall networks. This distinction prompted CMS to investigate

Part D preferred network coverage in 2015. The investigation by CMS found that plans' overall networks met or exceeded the statutory access standard, but one in ten preferred networks offered sufficient preferred pharmacy access to fewer than 40 percent of urban beneficiaries in their plans' service areas.¹⁶

Both plans and pharmacies face important trade-offs in their negotiations over prices and network status. From the pharmacies' perspective, plans may steer additional consumer demand to a specific pharmacy or pharmacy chain in exchange for retail price discounts. From the plans' perspective, restrictive networks allow plans to steer consumers to lower cost pharmacies, and the threat of exclusion could lead to a lower negotiated price at a given pharmacy. However, if consumers have strong preferences for broad networks, narrower networks will reduce enrollment. These mechanisms rely on consumer demand being responsive to differential copays, and this may not be true if a large subset of consumers is insulated from cost sharing. It is this set of trade-offs that we quantified in our research.

STEERING (SOMETIMES) WORKS, BUT CONSUMERS

PREFER TO PAY FOR CHOICE

Medicare Part D presents perhaps a best-case scenario for analyzing the welfare trade-offs inherent in selective contracting. In the health economics literature, numerous studies have found that health care consumers do not "shop."¹⁷ However, prescription drug needs are more predictable than, say, the need for inpatient hospital care, and frequent, repeated interaction with retail pharmacies implies that enrollees are likely aware at the plan choice stage of the relative convenience and cost of nearby pharmacies.

While only 13 percent of sample plans used preferred pharmacy networks in 2011, this rose to 70 percent in 2014. The copay differentials between preferred and non-preferred pharmacies ranged from \$6-\$8 per 30-day supply for the most popular plan formulary tiers, indicating that the incentive to use preferred pharmacies within preferred-network plans was substantial. However, these copay differentials did not generally apply for low-income subsidy (LIS) enrollees, who account for about 20 percent of plan spending in our sample. For example, for many LIS enrollees, the maximum copay was \$2.55 per 30-day

NOTES

share-in-us/.

- ¹¹ Duggan, M. & Scott Morton, F. (2010), "The Impact of Medicare Part D on Pharmaceutical Prices and Utilization," *American Economic Review* 100(1), 590-607.
- ¹² Ho, K., Hogan, J. & Scott Morton, F. (2017), "The Impact of Consumer Inattention on Insurer Pricing in the Medicare Part D Program," *RAND Journal of Economics* 48(4), 877-905.
- ¹³ Medicare-eligible individuals can acquire prescription drug coverage through standalone Part D plans or can obtain drug coverage bundled with medical and hospital coverage

in the form of "Medicare Advantage" plans. We limit our analysis to standalone Part D plans in this study, covering about 60 percent of enrollees. Enrollment numbers from Hoadley, J., Cubanski, J. & Neuman, T. (2016), "Medicare Part D in 2016 and Trends over Time," Report, Kaiser Family Foundation.

- ¹⁴ Enrollees are entitled to basic coverage of prescription drugs by a plan with equal or greater actuarial value to a standard Part D plan with a deductible, an initial coverage region with 75 percent coverage, another coverage gap (known as the "donut hole"), and a catastrophic region

with 95 percent coverage. The majority of Part D enrollees are not enrolled in standard plans, but rather in actuarially equivalent or "enhanced" plans with non-standard deductibles and tiered copays, so that cost-sharing varies across drugs and pharmacies.

- ¹⁵ CMS evaluates Part D retail pharmacy networks against standards established for the U.S. military's TRICARE programs: e.g., at least 90 percent of beneficiaries must reside within two miles of a network retail pharmacy. The analogous standards for suburban and rural areas are 90 percent within five miles, and 70 percent within fifteen

supply for a generic drug in 2014. Both preferred and non-preferred pharmacy copays generally exceed this maximum, effectively removing the copay differential and, in turn, the incentive to visit preferred pharmacies.

Utilizing data on prescription drug events, plan demand, pharmacy demand, plan characteristics, and pricing from CMS, we observed every prescription fill for the years 2011-2014 for a random 10 percent sample of all Medicare eligible individuals. Our results cover both branded and generic drugs, and in some cases focus particular attention on the market for generic prescription drugs because, strikingly, there is significant price dispersion even within extremely narrowly defined products and even within generic drugs. (Evidence of substantial generic price variation suggests that the issue of market power in generics be revisited, even though generic drug prices typically receive little research or policy attention.¹⁸)

Our research into preferred pharmacy networks reveals three key take-aways. First, preferred network status has a large positive effect on pharmacy demand, which is largest for non-LIS enrollees and for relatively low cost enrollees. Specifically, preferred pharmacies receive eight percent

greater market share among non-LIS enrollees (16 percent overall) due to preferred status alone. In contrast, LIS enrollees and very high-cost enrollees are less responsive to preferred status. Subsidies for LIS enrollees are crucial for safeguarding their access to health care products and services, but it is useful for policymakers to understand the trade-offs involved—even if only for forecasting purposes—when LIS and non-LIS enrollees are pooled in the same plans.

Second, plans face additional trade-offs when setting the comprehensiveness of their networks. Plans with more comprehensive preferred networks receive greater enrollment, all else equal, and the average enrollee is willing to pay an additional \$82 annually for a unit increase in network comprehensiveness (approximately a standard deviation).

Third, due to subsidies and cost-sharing structures that limit enrollees' exposure to preferred pharmacy copay differentials, the increased costs from a plan (hypothetically) transitioning to fully comprehensive preferred networks would be relatively small. On balance, the results imply that preferred network contracting saved plans \$9 per enrollee-year (1 percent annual savings for the average

enrollee-year) between 2012-2014. This works out to approximately \$150 million in increased costs if preferred network plans were to become fully comprehensive. Notably, these modest cost increases would be smaller than the consumer welfare benefits associated with moving to comprehensive preferred networks (\$16 per enrollee-year), given enrollees' revealed preference to pay ex ante for network coverage.

Our findings raise the question of why insurers offer limited network plans at all, when the cost savings are significantly less than the value of expanded access. Three features of this market could explain the discrepancy. First, although preferred network plans do not attract enrollees who take fewer drugs, our results indicate that the enrollees in plans with more restrictive networks purchased cheaper drugs. Plans could therefore be using network breadth as a screening tool to attract healthy enrollees. Second, limited pharmacy network plans are a relatively recent phenomenon. Thus, insurers may be experimenting, and the market may not have been in equilibrium during the period we studied.¹⁹ Finally—and of most interest to policymakers concerned about public health care spend-

NOTES

miles, respectively CMS.

¹⁶ CMS (2015b), "Analysis of Part D beneficiary access to preferred cost sharing pharmacies (PCSPs)," Technical report, Center for Medicare and Medicaid Services.

¹⁷ See, e.g., Chernen, Cooper, Larson-Hallock & Scott Morton (2019), "Are Health Care Services Shoppable? Evidence from the Consumption of Lower-Limb MRI Scans," NBER Working Paper 24869.

¹⁸ The mean price of branded drugs is 9-15 times as large as that for generic drugs, which accounts for the disproportionate policy attention given to the less-frequently

prescribed branded drugs.

¹⁹ Snook, T. D. & Filipek, T. M. (2011), "Pharmacy Benefit Management: Pros and Cons of Various Approaches", Milliman White Paper.

²⁰ Apoorva Rama (2019), "National Health Expenditures, 2017: The slowdown in spending growth continues," American Medical Association, <https://www.washingtonpost.com/graphics/politics/policy-2020/medicare-for-all/>.

ing—the threat of exclusion from a preferred network may allow insurers to negotiate larger discounts within a pharmacy. Indeed, our analyses suggest that drug cost savings associated with selective contracting are driven in part by restrictive plans steering enrollees to lower cost pharmacies and in part by restrictive plans extracting larger discounts from pharmacies. In future work, we will explore this issue further.

POLICY IMPLICATIONS

The fact that we discovered any ability to steer consumers in their health care purchases is surprising. Selective pharmacy contracting in Medicare Part D plans is undoubtedly a niche topic. But the reality that steering in a health care context sometimes works in practice should be encouraging to policymakers interested in reining in health care costs, particularly the drug prices paid by Medicare enrollees.

If this steering result were to be applied to the entire \$333 billion pharmaceutical drug industry,²⁰ the savings could be much greater. Small fix or not, this targeted attempt by Medicare Part D insurance companies to lower prescription drug prices is yet another example for policymakers of how trimming health care costs wherever possible might be an essential part of any “big” solution.

ABOUT THE AUTHOR

ASHLEY SWANSON, PHD

Assistant Professor of Health Care Management, The Wharton School

An applied microeconomist, Professor Swanson's research focuses primarily on the economics of health care. In particular, she studies the effects of industrial organization and information on choices, costs, and health outcomes. Her recent work has examined the effect of physician ownership on health care quality and provider incentives; the effects of lack of transparency and other frictions on negotiations between hospitals and suppliers; the effects of complex prices and payments from pharmaceutical firms on prescription drug utilization and prices; and the effects of insurers' provider and pharmacy networks on prices.

Professor Swanson also studies the factors affecting high achievement in secondary education. Recent work includes studies on gender disparities and school quality.

ABOUT THE WHARTON PUBLIC POLICY INITIATIVE

The Wharton Public Policy Initiative (PPI) is a hub for research and education, engaging faculty and students across the University of Pennsylvania and reaching government decision-makers through independent, practical, timely, and nonpartisan policy briefs. With offices both at Penn and in Washington, DC, the Initiative provides comprehensive research, coverage, and analysis, anticipating key policy issues on the horizon.

ABOUT WHARTON PUBLIC POLICY INITIATIVE ISSUE BRIEFS

Wharton PPI publishes issue briefs at least once a month, tackling issues that are varied but share one common thread: they are central to the economic health of the nation and the American people. These Issue Briefs are nonpartisan, knowledge-driven documents written by Wharton and Penn faculty in their specific areas of expertise.

CONTACT THE WHARTON PUBLIC POLICY INITIATIVE

At Penn

Steinberg Hall-Dietrich Hall, Room 201
Philadelphia, PA 19104-6302
+1.215.898.1197

In Washington, DC

777 6th Street, NW
Washington, DC 20001
1+202-870-2655

For additional copies, please visit the Wharton PPI website at publicpolicy.wharton.upenn.edu.

Follow us on Twitter: [@WhartonPPI](https://twitter.com/WhartonPPI)

Founded in 1881 as the first collegiate business school, the Wharton School of the University of Pennsylvania is recognized globally for intellectual leadership and ongoing innovation across every major discipline of business education. With a broad global community and one of the most published business school faculties, Wharton creates economic and social value around the world.

////////////////////////////////////
KNOWLEDGE FOR POLICY IMPACT
////////////////////////////////////