

The Limits of Cost Sharing

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September 2014



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Introduction

There is little doubt that the structure of the health insurance system in the United States incentivizes the overconsumption of health services.¹ On the supply side, the fee-for-service payment model utilized by nearly all private health insurers encourages hospitals and physicians to increase services and drives up expenditures.² On the demand side, insurance separates many consumers from the real cost of expensive treatments and services, removing the incentive for individuals to make efficient decisions about the care they use.³ While reformers have sought to deal with supply side issues by proposing the elimination and replacement of the fee-for-service model of paying providers,⁴ attempts to deal with demand-side distortions have often mistakenly focused on making insurance policies less generous for consumers by increasing the amount that they directly pay for their care—better known as “cost sharing.”⁵

The logic behind cost sharing is fairly simple: if you increase a consumer’s “skin in the game,” you make that person more aware of the cost of care. Theoretically, someone who pays a fee or percentage for each service or prescription on top of a monthly premium is more likely to forego unnecessary health services than a person who only pays a fixed monthly premium and is therefore unaware of the cost of each service. In practice, however, cost sharing is far from an effective way to control expenditures.

The notion that cost sharing reduces unnecessary health care consumption and ultimately lowers cost is premised on the idea that higher spending does not ultimately result in better quality care⁶ and consumers have the ability to make efficient decisions about health care purchases.⁷ President Obama seemingly captured both of these ideas when he mused rhetorically: “If there’s a blue pill and a red pill, and the blue pill is half the price of the red pill and works just as well, why not pay half price for the thing that’s going to make you well?”⁸ The President was not just referring to consumers of course—who he argued, alongside doctors and hospitals, needed to become “more discriminate” in their consumption of health services.⁹ His comments highlighted

¹ Randall P. Ellis & Thomas G. McGuire, *Supply Side and Demand Side Cost Sharing in Health Care*, 7(4) J. Econ. Persp. 135, 136 (1993); see also Morgan True, *Forging Green Mountain Care: Cost Sharing Explained*, VT Digger (Apr. 6, 2014).

² *Id.* at 138.

³ See Elise Gould, Ec. Pol’y Inst., *Increased Health Care Cost Sharing Works as Intended: It burdens patients who need care the most* (2013).

⁴ 18 V.S.A. §9377; see also Richard Slusky, Dir. Of Payment Reform, Green Mountain Care Bd., *Green Mountain Care Board Update on Vermont’s Payment and Delivery System Reform Pilots* (Mar. 20, 2014). Here in Vermont, the Green Mountain Care Board is currently running a series of payment reform pilots that are funded by grants from the Center for Medicare & Medicaid Innovation and the Robert Wood Johnson Foundation.

⁵ Amelia M. Haviland et al., RAND Corp., *Skin in the Game: How Consumer-Directed Plans Affect the Cost and Use of Health Care* (2012).

⁶ Katherine Baicker & Amitabh Chandra, Health Affairs *Medicare Spending, The Physician Workforce, and Beneficiaries’ Quality Of Care* (2004).

⁷ See Gould *supra* note 3 at 1.

⁸ Brian Montopoli, *Obama “Why Not Pay Half the Price?”*, CBS NEWS (Jul. 22, 2009).

⁹ *Id.*

both the pervasive belief that health care expenditures can be simply controlled by adjusting consumer demand, and its corollary that cost sharing is an effective way to control consumer demand.¹⁰

The main issue with these beliefs is that while cost sharing has been shown to reduce consumption of health services, these reductions come from decreased utilization from both necessary and unnecessary services.¹¹ And while some research has shown that there are no short term negative effects on health outcomes as a result of these reductions in utilization for most people, most evidence shows that cost sharing can adversely impact the health and financial well being of poor and chronically ill individuals. It is also questionable whether cost sharing reduces system-wide spending. Research has shown that cost sharing can shift cost to consumers,¹² while hardly affecting overall spending in the short term. In addition, the long-term externalities from consumers reducing utilization of necessary care can result in higher aggregate expenditures.¹³

Cost sharing usually takes the form of deductibles, copays, or coinsurance. A deductible is a fixed amount of money that the insured must pay during the benefit period, usually a year, before an insurer starts to pay for covered medical services.¹⁴ If an insurance plan has a deductible of \$1000, the insurer will not pay anything until the insured has paid \$1000 towards the covered health services. The deductible on an insurance plan can differ for specific services or providers, and in some cases may not even apply to certain services.¹⁵ Copayments and coinsurance are assessed on a per-service basis. A copayment is a fixed-dollar amount that an insured person has to pay for each service rendered, while coinsurance is the percentage of medical expense that an individual has to pay for.¹⁶ All three of these cost sharing mechanisms can be and are often used in a single plan, and more than one of these can be employed for a single health service.¹⁷

¹⁰ Avik Roy, *It's the Cost Sharing, Stupid: Health Care Spending Is Slowing Because Americans Control More of Their Health Dollars*, FORBES (June 16, 2013).

¹¹ Aaron E. Carroll, *People With Chronic Illness Fare Worse Under Cost-Sharing*, N.Y. Times: The Upshot (May 19, 2014).

¹² Amitabh Chandra et al., *Patient Cost-Sharing and Hospitalization Offsets in the Elderly*, 100 Am. Econ. Rev. 193 (2010).

¹³ Amal N. Trivedi, M.D. et al., *Increased Ambulatory Care Copayments and Hospitalizations Among the Elderly*, 362 N. Eng. J. Med. 320 (2010); see also Ellis & McGuire *supra* note 1 at 136-37 (“[If] demand-side cost sharing is used to reduce consumption, it imposes additional financial risk on consumers.”).

¹⁴ *Definition of Health Insurance Terms* Bureau of Labor Statistics (July 3, 2014).

¹⁵ *Id.*

¹⁶ As an illustration of the main difference between copays and coinsurance, someone with a copayment for physician visits would pay a fixed amount, like \$25, for each visit regardless of what the physician actually charges, while an individual with a plan that charges coinsurance for physician visits would have to pay a percentage, say 20%, of the cost of that physician visit.

¹⁷ It is not uncommon for an insurance plan with a deductible to also have coinsurance payments after the full deductible amount has been paid, while a specific service like hospitalization may require the insured to pay a copayment as well as a coinsurance fee.

Justification for Cost Sharing

The justification for cost sharing is rooted in the idea that insulating individuals from risk through insurance adversely alters behavior.¹⁸ In economics, this is known as “moral hazard.” The theory was first applied to health insurance in 1968 by economist Marc Pauly,¹⁹ who argued that the existence of health insurance caused consumers to behave as if the cost of medical care was zero.²⁰ Theoretically, there is an optimal level of health care consumption in which the price of a medical service is determined by the value of this service to consumers. By distorting the price of medical care, he speculated, insurance incentivizes individuals to consume health care beyond this optimal level because they are not faced with the full cost of the services. The difference between the market price and the actual value to consumers for these “extra” services, which is not particularly high, represents a market inefficiency from Pauly’s perspective, and the resources expended on “unnecessary” services are a “welfare loss” to society.²¹ “Value” in this context refers to the benefit to consumers for health services beyond Pauly’s optimal level. Cost sharing theoretically does away with some market inefficiency by making consumers more aware of the cost of medical care, increasing the likelihood that they will consume care in a prudent and cost-conscious manner.

The best empirical support for this theory comes from the RAND Health Insurance Experiment (RHIE), a research study undertaken from 1971 to 1982 that randomly assigned 2,750 families (equaling more than 7,700 individuals, all under the age of 65) to different levels of cost sharing.²² The findings from the RHIE were significant; participants with higher levels of cost sharing visited the doctor less frequently, were admitted to the hospital less often, and overall

¹⁸ Mark V. Pauly, Ctr. for Policy Research, *The Truth About Moral Hazard And Adverse Selection* (2007).

¹⁹ See Mark V. Pauly, *The Economist of Moral Hazard: Comment*, 58 Am. Ec. Rev. 531, 532 (1968); see also Sander Kelman & Albert Woodward, *John Nyman and the Economics of Health Care Moral Hazard*, ISRN Ec., 2013, at 2. Pauly was mainly responding to an earlier argument by economist Kenneth Arrow, who had speculated that the widespread lack of health insurance was the result of market failure. It is widely accepted among economists that most people are risk averse, which in the context of health insurance means that most people will prefer to pay for health insurance rather than incur losses from an uncertain adverse health event, even if both the aggregate cost of the health insurance and the cost of the medical care without insurance ended up costing the exact same amount. Because Arrow considered the cost of insurance at the time to be relatively fair, meaning he felt that the price of insurance was equal to its value, he posited that the reason there was not universal coverage had to be the result of a market failure. In response, Pauly countered that there was a rational market explanation for the lack of universal coverage. Pauly felt that the high level of comprehensive coverage drove up the cost of medical care, which in turn drove up premiums to the point that for many people, insurance was not worth the cost.

²⁰ See Pauly, 58 Am. Ec. Rev. at 532.

²¹ *Id.*

²² Robert H. Brook, RAND Corp., *The Health Insurance Experiment: A Classic RAND Study Speaks to the Current Health Care Reform Debate*, at 1-2 (2006); see also Jonathan Gruber, Ph.D, Kaiser Family Foundation, *The Role of Consumer Copayments for Health Care: Lessons from the RAND Health Insurance Experiment and Beyond*, at 2 (2006). The study, which began enrolling participants in 1974, randomly assigned families to one of five levels of cost sharing: free care with no coinsurance, either 25%, 50%, or 95% coinsurance, or a deductible of \$150 (\$725 in 2014 dollars) per person and \$450 (\$2,175 in 2014 dollars) per family on outpatient care. The out of pocket maximums were 5%, 10%, or 15% of income, and all policies were capped at a hard dollar amount of \$1000 (over \$4,800 in 2014 dollars).

spent less on health care services.²³ And while the study did conclude that cost sharing caused a reduction in utilization of both effective and less effective care at equal rates, the vast majority of the participants saw no negative effects on health outcomes as a result of the reduced utilization.²⁴

The RHIE is still the only long term randomized study on cost sharing available and is considered by most experts to be the “gold-standard” of scientific research on the subject,²⁵ but its usefulness in justifying cost sharing as an effective policy tool has been greatly overstated. Like any study, the RHIE has its share of methodological limitations. One of the RHIEs more important findings, the lack of negative health outcomes as a result of reduced utilization, could have simply been the result of the relatively short time frame of observation—the majority of participants (70%) were only examined for a 3 to 5-year time period.²⁶ Others have posited that the lack of adverse health outcomes could be because of the relatively small and selective sample size of the study.²⁷ One economist speculated that the negligible effect on health outcomes occurred because of attrition in the study—participants on high cost sharing plans, he argued, dropped out of the study at higher rates when faced with hospitalization, artificially distorting the data.²⁸

The RHIE also expressly excluded the elderly and disabled.²⁹ As numerous subsequent studies have shown, the elderly are particularly sensitive to decreased prescription drug use,³⁰ and the negative health outcomes that result from the reduced utilization can be dangerous: a study from 2001 showed an increase in the rate of hospitalizations among Medicare+ Choice beneficiaries shortly after cost sharing was implemented;³¹ another study from 2006 found that Medicare beneficiaries who had a cap on pharmacy benefits had higher rates of hospitalizations and morbidity.³²

²³ See Brook *supra* note 22 at 2.

²⁴ *Id.*

²⁵ Austin Frakt, *Health Care Cost Sharing Works—Up to a Point*, N.Y. Times: The Upshot (May 26, 2014).

²⁶ Joseph P. Newhouse & the Insurance Experiment Group, *Free for All? Lessons from the RAND Health Insurance Experiment* 15(1993); see also Jonathan Gruber, PhD, *The Role of Consumer Copayments for Health Care: Lessons from the RAND Health Insurance Experiment and Beyond*, Kaiser Family Foundation 6 (2006).

²⁷ The Lessons and Limitations of the Rand Health Insurance Experiment at 26 (“Because of the sample size, the RHIE was especially weak at assessing the health effects of cost sharing on certain population subgroups, even those included in the experiment.”)

²⁸ John A. Nyman, *American Health Policy: Cracks in the Foundation?*, 32(5) J. Health Pol. Pol’y & L. 759-783 (2007). But see Joseph P. Newhouse, *Attrition in the RAND Health Insurance Experiment: A Response to Nyman*, 33(2) J. Health Pol. Pol’y L 295-308 (2008).

²⁹ Mitchell Wong, *Effects of Cost Sharing on Care Seeking and Health Status: Results from the Medical Outcomes Study*, 91(11) Am. J. Pub. Health 1889 (2001).

³⁰ Amitabh Chandra, *Patient Cost -Sharing and Hospitalization Offsets in the Elderly*, 100(1) Am. Econ. Rev. 193 (2011) (finding “convincing evidence for an offset effect of higher copayments”).

³¹ Robyn Tamblyn et al., *Adverse Events Associated With Prescription Drug Cost-Sharing Among Poor and Elderly Persons*, 285(4) JAMA 421, 421-429 (2001).

³² John Hsu et al., *Unintended Consequences of Caps on Medicare Drug Benefits*, 354(22) New Eng. J. Med. 2349 (2006).

Changes and Innovations

The extent to which the RHIE's findings are still relevant today is also unclear.³³ There have been significant changes to medical care since the RHIE was conducted³⁴—prescription drug utilization is much higher than it was during the 1970s, and technological innovations in medical care have increased significantly.³⁵ These changes are relevant because prescription drug utilization has been proven time³⁶ and time³⁷ again to be particularly sensitive to cost-sharing mechanisms in comparison to other health care services, and the increased effectiveness of medical care today may mean that reductions in utilization could have a larger impact on health outcomes.³⁸

The nature of insurance has also changed significantly over the years.³⁹ When the RHIE was conducted, there were essentially two types of insurance plans.⁴⁰ The majority of Americans with health insurance had indemnity plans with coinsurance and a relatively small deductible,⁴¹ while health maintenance organization (HMO) coverage, which did not have a deductible and had just begun implementing fixed copayments, was rare and relatively concentrated on the west coast.⁴² Today, there are considerable variations in the types of health care plans available, with a much larger percentage of the population covered by HMOs, as well as in the levels of cost sharing between plans.⁴³ Plans today also cover more services—the majority of plans during the 1970s had no prescription drug coverage, and insurance coverage for mental health and substance abuse care has increased significantly over the years as well.⁴⁴

Poverty and Chronic Illness

While the RHIE largely supported the idea that cost sharing could reduce spending without affecting health outcomes, it also provided early evidence that cost sharing was far from an appropriate policy tool for everyone. For a small percentage of the sample size, a cross section of

³³ See Frakt *supra* note 43.

³⁴ *Id.*

³⁵ See Brook *supra* note 22 at 4; see also Katherine Swartz, The Robert Wood Johnson Found. Synthesis Proj., *Cost Sharing: Effects on Spending and Outcomes*, at 6 (2010). Magnetic resonance imaging machines (MRIs) did not become available until after the study had ended.

³⁶ Michael T. Eaddy et al., *How Patient Cost Sharing Trends Affect Adherence and Outcomes*, 37 *Pharmacy & Therapeutics* 45 (2012).

³⁷ Dana P. Goldman et al., *Pharmacy Benefits and the Use of Drugs by the Chronically Ill*, 291 *JAMA* 2344 (2004).

³⁸ See Gruber *supra* note 26 at 8 (“The past 30 years have seen enormous advances in treatment effectiveness for a variety of conditions, ranging from heart attacks to depression. This may imply that the care that is reduced in today’s medical environment is more important for health outcomes than in the 1970s.”).

³⁹ See Swartz *supra* note 35.

⁴⁰ *Id.*

⁴¹ *Id.*

⁴² *Id.*

⁴³ *Id.*

⁴⁴ *Id.*

nearly 6 percent of the sickest and poorest,⁴⁵ health outcomes were worse under plans with cost sharing than under plans with free care.⁴⁶ Participants in this demographic⁴⁷ who had plans with cost sharing suffered a greater mortality rate, had lower reductions in blood pressure, were less likely to receive needed dental care, and had a higher prevalence of serious symptoms than their counterparts with free care.⁴⁸

These findings have been overwhelmingly supported by subsequent studies involving individuals who are both poor and sick.⁴⁹ For example, an evaluation study of the Medicaid program in Georgia found a 16% reduction in prescription drug use by enrollees with cancer as a result of relatively small (in the range of \$2-\$3) copayments.⁵⁰ This same study also showed a slight increase in emergency department visits and an increase in total medical cost.⁵¹

While there is certainly a strong connection between poverty and chronic illnesses,⁵² it is important to separate these groups out so as to better understand which individuals are most affected by cost sharing. For those with chronic illnesses that require ongoing and long term care like asthma or high blood pressure, it is certainly true that reductions in utilization of even the smallest amount of necessary care can lead to serious adverse health outcomes.⁵³ A recently published study in the Journal of the American Medical Association (JAMA) that examined families with young children with asthma found that participant families with higher levels of cost sharing were much more likely to delay doctor's office visits or avoid going to emergency departments altogether.⁵⁴ Those chronically ill individuals who manage to avoid reducing utilization often shoulder a large financial burden and crippling medical bills.⁵⁵

Increased cost sharing for those with chronic illnesses can also result in higher overall medical spending. A 2005 study found that *significantly lowering* coinsurance rates of diabetes drugs in a corporate health plan led to *lower* total pharmacy costs, emergency department visits, and total

⁴⁵ See Gruber *supra* note 26 at 6.

⁴⁶ *Id.*

⁴⁷ *Id.* The 6% was made up of those who were both in the bottom 20% of the income distribution and the bottom 25% in terms of health.

⁴⁸ *Id.*

⁴⁹ Michael T. Eaddy et al., *How Patient Cost-Sharing Trends Affect Adherence and Outcomes: A Literature Review*, 37(1) *Pharmacy & Therapeutics* 45, 47 (2011) ("Of the 66 studies [that were examined], (85%) demonstrated a statistically significant relationship between cost sharing and decreased medication adherence).

⁵⁰ Sujha Subramanian, *Impact of Medicaid Copayments on Patients with Cancer*, 49 *Med. Care* 842, 845 (2011).

⁵¹ *Id.* at 846.

⁵² Alyssa Brown, *With Poverty Comes Depression, More than Other Illnesses*, Gallup: Well-Being (October 30, 2012).

⁵³ Vicki Fung, PhD. et al., *Financial Barriers to Care Among Low-Income Children with Asthma: Health Care Reform Implications*, 168(7) *JAMA* 649, 649-656 (2014).

⁵⁴ *Id.*; see Carroll *supra* note 11.

⁵⁵ See generally David U. Himmelstein et al., Health Affairs: Market Watch, *Illness and Injury As Contributors to Bankruptcy* (2005). Cf. Ha T. Tu & Genna R. Cohen, Ctr. For Studying Health Sys. Change, *Financial and Health Burdens of Chronic Conditions Grow* (2009).

spending on health costs per plan for that company.⁵⁶ A study from 2007 examining the effects of cost sharing on pharmaceutical adherence for individuals with congestive heart failure, lipid disorders, diabetes, and schizophrenia observed a significant increase in inpatient and emergency medical services.⁵⁷

For lower income consumers without chronic illnesses however, the findings have been more complicated. The poor should theoretically reduce utilization at higher costs because they are more sensitive to price changes.⁵⁸ The results from RHIE, however, found that low-income participants with average health reduced utilization at basically the same rate as higher income participants and did not see any adverse health outcomes.⁵⁹ Some have suggested that this incongruity can be explained away by the fact that out-of-pocket maximums for the enrollees in the study were based on income—meaning the low-income participants in the study reached their out-of-pocket maximum earlier than their higher income counterparts and adjusted their utilization as a result.⁶⁰

A much more recent research paper that used data from low-income enrollees in Massachusetts's Commonwealth Care Program and controlled for chronic illness seemed to confirm the results of the RHIE. The researchers concluded that demand for health care services for the study's low-income participants was impacted only slightly more than measures of demand for higher income populations.⁶¹ While numerous studies tend to support the idea that cost sharing affects poorer individuals more, they have been criticized for being non-scientific or based on surveys of Medicaid or Medicare-age populations that are older or have higher rates of chronic illnesses.⁶²

While there may be some debate about whether lower income consumers without chronic illnesses reduce utilization at higher rates as a result of cost sharing, there is little doubt that these consumers face a larger financial burden as a result of cost sharing than middle and upper income individuals. A study that examined families with unsubsidized Massachusetts

⁵⁶ John J. Mahoney, *Reducing patient drug acquisition costs can lower diabetes health claims*, 11(5) Am. J. Managed Care S170-S176 (2005) (finding that overall direct healthcare costs per plan participant with diabetes decreased by 6%).

⁵⁷ See Goldman et al., *Prescription Drug Cost Sharing: Associations With Medication and Medical Utilization and Spending and Health* 298(1) JAMA 61, 64-65 (2007)

⁵⁸ See Michael Chernew et al., *Effects of Increased Patient Cost Sharing on Socioeconomic Disparities in Health Care*, 23(8) J. Gen. Intern. Med. 1131, 1134 (2008) (finding an “inverse relationship between copayments and adherence” that was sensitive to income); see also Chandra et al., *The Impact of Patient Cost Sharing On The Poor: Evidence from Massachusetts* 9 (Nat'l Bureau of Econ. Research, Working Paper No. 18023, 2012).

⁵⁹ Jonathan Gruber, Ph.D., *The Role of Consumer Copayments for Health Care: Lessons from the RAND Health Insurance Experiment and Beyond*, Kaiser Family Foundation 6 (2006).

⁶⁰ *Id.* (The poor were much more likely to hit their out-of-pocket maximum, and...once individuals hit their [maximum] they behaved very similarly to those in the free care plan.”)

⁶¹ Chandra at 3.

⁶² Leighton Ku et al., Center on Budget & Policy Priorities, *The Effects of Copayments on the Use of Medical Services and Prescription Drugs in Utah's Medicaid Program* (2004); See Goldman et al., *Prescription Drug Cost Sharing: Associations With Medication and Medical Utilization and Spending and Health* 298(1) JAMA 61, 65 (2007) (“While low income groups may be more sensitive to increased cost sharing, there is little evidence to support this contention.”)

Commonwealth Health Insurance Connector Authority health care plans showed that the odds of a serious financial burden were much higher for families with incomes less than 400% of the federal poverty line.⁶³ This same study found that these families also had higher odds of having higher-than-expected out-of-pocket cost.⁶⁴

The effect of copayments and coinsurance on prescription drug utilization is probably the most extensive area of post-RHIE study.⁶⁵ While many of these studies have either found some sort of inverse correlation between medication adherence and cost sharing⁶⁶ or have linked reductions in medication adherence to adverse health outcomes,⁶⁷ evidence linking cost sharing directly to adverse health outcomes usually focuses on populations with chronic illnesses.⁶⁸ There is also ample empirical research examining the effect of cost sharing on the utilization of outpatient services. While only a handful of these studies on outpatient services have focused specifically on the effect of cost sharing on behavioral health services such as mental illness and addiction therapies, there is compelling evidence that these services are particularly sensitive to cost sharing mechanisms.⁶⁹ Research on the effects of cost sharing on emergency department utilization tends to mirror general cost sharing literature—increased cost sharing leads to reductions in both urgent and less urgent emergency department visits.⁷⁰

Conclusion: Challenges Exist to Cost Sharing as a Policy Tool

There is a general disconnect between the theory and actual practice of cost sharing mechanisms. For example, the central premise that cost sharing is an effective way to reduce utilization is

⁶³ Allison A. Galbraith et al., *Some Families who Purchased Health Coverage through the Massachusetts Connector Wound up with High Financial Burdens*, 32 Health Aff. 974 (2013).

⁶⁴ *Id.*; See generally Jeffrey T. Kullgren, MD, *Health Care Use and Decision Making Among Lower-Income Families in High Deductible Plans*, 170(21) Arch. Intern. Med. 1918-25 (2010). Low income families, at least prior to the Affordable Care Act, were much more likely to have plans with lower actuarial values and higher levels of cost sharing.

⁶⁵ David Machledt & Jane Perkins, NHELP, *Medicaid Premiums and Cost Sharing* 5 (2014). This is likely a matter of practicality. Prescription drug utilization is fairly easy to measure and compare in comparison to other health services.

⁶⁶ Michael T. Eaddy et al., *How Patient Cost-Sharing Trends Affect Adherence and Outcomes: A Literature Review*, 37(1) Pharmacy & Therapeutics 45, 47 (2011)

⁶⁷ Sujha Subramanian, *Impact of Medicaid Copayments on Patients with Cancer*, 49 Med. Care 842, 846 (2011); Robyn Tamblyn et al., *Adverse Events Associated With Prescription Drug Cost-Sharing Among Poor and Elderly Persons*, 285(4) JAMA 421, 421-29 (2001).

⁶⁸ See Machledt & Perkins *supra* note 65 at 6.

⁶⁹ See Jacqueline Wallen et al., *Male-Female Differences in Mental Health Visits under Cost-Sharing*, 21 Health Services Res. 341 (1986); see also Bradley Stein et al., *The Effect of Copayments on Drug and Alcohol Treatment Following Inpatient Detoxification under Managed Care*, 51 Psychiatric Services 195, 197 (2000) (“Our results suggest that outpatient copayment levels may significantly influence the rate at which discharged detoxification patients enter subsequent treatment.”); see also Paul Fishman et al., *Impact of Deductibles on Initiation and Continuation of Psychotherapy for Treatment of Depression*, 47 Health Services Res. 1561 (2012) (finding that individuals with unmet deductibles between \$100 and \$500 were less likely to make initial outpatient visits for psychotherapy).

⁷⁰ Joe Selby et al., *Effect of Copayment on Use of the Emergency Department in a Health Maintenance Organization*, 334 N. Eng. J. Med. 635, 638 (1996).

rooted in the belief that individuals have the ability to make efficient health care purchasing decisions. So why did reductions in utilization in the RHIE come from both effective and less-effective care?

Pauly's initial theory of moral hazard was based on a major assumption: a market with perfect information that was made up of consumers who have the ability to control the quantity of health care they purchase.⁷¹ Perfect information is an important tenet of any competitive market that assumes that buyers and sellers have all necessary information before they make decisions about purchasing or selling a good, respectively. In the context of health care, the existence of perfect information would mean that consumers knew what medical care was necessary and effective for their personal needs and exactly how much of it they should purchase. This assumption bears little resemblance to how the market for health care actually looks, however. Most consumers lack the expertise to determine what health care is most effective, and knowing this, they often rely heavily on the expertise of providers and physicians.⁷² As a result, some experts argue that it is primarily providers and not patients who control the demand for health care,⁷³ so demand side cost containment mechanisms will have a limited effect on controlling health care cost.⁷⁴

In the last decade, some of the more fundamental tenets of the theory of moral hazard in health insurance have been openly challenged.⁷⁵ One economist in particular, John Nyman, has taken conventional insurance theory to task for its simplification of moral hazard theory—arguing instead that the transfer of income that occurs as a result of insurance can often lead to a “welfare gain.”⁷⁶ Nyman's main issue with the traditional theory surrounding moral hazard in health insurance is that it tends to treat all additional medical care the same—as welfare decreasing. He specifically points out that welfare implications of a liver transplant for an individual with liver failure should not be treated the same as a cosmetic breast implant for a healthy woman.⁷⁷ Even Pauly has repeatedly clarified his hypothesis over the years—pointing out that his original proposition was only meant to apply to routine physician visits, and that cost sharing is only ideal for middle and upper class individuals of average health.⁷⁸

The theory behind cost sharing will continue to be debated. The real-world manifestation of cost sharing mechanisms, however, has proven to be at best a blunt policy tool that can put consumers' health at serious risk for fairly uncertain rewards.

⁷¹ Ellis & McGuire, 7(4) J. Econ. Persp. at 137.

⁷² *Id.*

⁷³ See Swartz *supra* note 35 at 6.

⁷⁴ *Id.*

⁷⁵ John A. Nyman, *Is 'Moral Hazard' Inefficient? The Policy Implications of A New Theory*, 23(5) Health Affairs 194 (2004).

⁷⁶ John A. Nyman, *The theory of Demand for Health Insurance* (Stanford Univ. Press, 2003).

⁷⁷ See Nyman *supra* note 66 at 195.

⁷⁸ Mark V. Pauly, *The Truth About Moral Hazard And Adverse Selection* (Ctr. for Policy Research, Paper No. 7).